EUROBANK ERGASIAS S.A.

FINANCIAL STATEMENTS

FOR THE YEAR ENDED

31 DECEMBER 2019

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Balance Sheet

	Note	31 December 2019 € million	31 December 2018 Restated [1] € million
ASSETS			
Cash and balances with central banks	15	**2,626**	397
Due from credit institutions	17	**3,459**	3,190
Securities held for trading	18	**50**	18
Derivative financial instruments	19	**2,278**	1,875
Loans and advances to customers	20	**29,698**	29,354
Investment securities	22	**6,580**	6,597
Shares in subsidiaries	23	**1,855**	1,753
Investments in associates and joint ventures	25	**100**	37
Property, plant and equipment	26	**564**	244
Investment property	27	**721**	39
Goodwill and other intangible assets	28	**313**	126
Deferred tax assets	14	**4,754**	4,901
Other assets	29	**1,799**	1,729
Assets of disposal groups classified as held for sale	30	**49**	20
Total assets		**54,846**	50,280
LIABILITIES			
Due to central banks	31	**1,900**	2,050
Due to credit institutions	32	**8,201**	9,247
Derivative financial instruments	19	**2,724**	1,896
Due to customers	33	**32,693**	29,135
Debt securities in issue	34	**2,390**	2,697
Other liabilities	35	**1,081**	872
Total liabilities		**48,989**	45,897
EQUITY			
Share capital	37	**853**	656
Share premium	37	**8,056**	8,056
Reserves and retained earnings	38	**(3,054)**	(4,371)
Hybrid capital	39	**2**	42
Total equity		**5,857**	4,383
Total equity and liabilities		**54,846**	50,280

[1] *The comparative information has been restated due to change in accounting policy for investment property (note 2.3.2).*

Notes on pages 6 to 131 form an integral part of these financial statements

Income Statement

	Note	Year ended 31 December 2019 € million	2018 Restated [1] € million
Interest income		**1,701**	1,807
Interest expense		**(709)**	(752)
Net interest income	6	**992**	1,055
Banking fee and commission income		**243**	271
Banking fee and commission expense		**(96)**	(86)
Net banking fee and commission income	7	**147**	185
Income from non banking services	8	**42**	6
Dividend income	9	**142**	123
Net trading income/(loss)	10	**(24)**	20
Gains less losses from investment securities	10	**74**	79
Other income/(expenses)	11	**1**	(7)
Operating income		**1,374**	1,461
Operating expenses	12	**(654)**	(665)
Profit from operations before impairments, provisions and restructuring costs		**720**	796
Impairment losses relating to loans and advances to customers	21	**(529)**	(606)
Impairment losses on goodwill	28	**(62)**	-
Other impairment losses and provisions	13	**(41)**	(76)
Restructuring costs	13	**(69)**	(58)
Profit before tax		**19**	56
Income tax	14	**12**	(23)
Net profit		**31**	33

[1] *The comparative information has been restated due to change in accounting policy for investment property (note 2.3.2).*

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Statement of Comprehensive Income

	Year ended 31 December			
	2019		2018 Restated [1]	
	€ million		€ million	
Net profit		**31**		33
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	**12**		26	
- transfer to net profit, net of tax	**(17)**	**(5)**	(21)	5
Debt securities at FVOCI				
- changes in fair value, net of tax (note 5.2.1.3 and 22)	**696**		(81)	
- transfer to net profit, net of tax (note 22)	**(287)**	**409**	(85)	(166)
		404		(161)
Items that will not be reclassified to profit or loss:				
-Actuarial gains/ (losses) on post employment benefit obligations,net of tax		**(4)**		0
Other comprehensive income		**400**		(161)
Total comprehensive income		**431**		(128)

[1] *The comparative information has been restated due to change in accounting policy for investment property (note 2.3.2).*

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Statement of Changes in Equity

	Ordinary share capital € million	Share premium € million	Reserves and Retained earnings € million	Preference shares € million	Hybrid capital € million	Total € million
Balance at 1 January 2018	656	8,056	(3,263)	950	43	6,442
Impact of adopting IFRS 9 at 1 January 2018 (note 2.3.3)	-	-	(982)	-	-	(982)
Restatement due to charge in accounting policy (note 2.3.2)	-	-	5	-	-	5
Balance at 1 January 2018, as restated	656	8,056	(4,240)	950	43	5,465
Net profit (restated note 2.3.2)	-	-	33	-	-	33
Other comprehensive income	-	-	(161)	-	-	(161)
Total comprehensive income for the year ended 31 December 2018	-	-	(128)	-	-	(128)
Redemption of preference shares	-	-	-	(950)	-	(950)
Hybrid capital's dividend paid and buy back, net of tax	-	-	(2)	-	(1)	(3)
Merger with a Bank's subsidiary	-	-	(1)	-	-	(1)
	-	-	(3)	(950)	(1)	(954)
Balance at 31 December 2018	656	8,056	(4,371)	-	42	4,383
Balance at 1 January 2019	**656**	**8,056**	**(4,371)**	**-**	**42**	**4,383**
Net profit	-	-	31	-	-	**31**
Other comprehensive income	-	-	400	-	-	**400**
Total comprehensive income for the year ended 31 December 2019	**-**	**-**	**431**	**-**	**-**	**431**
Merger with Grivalia Properties REIC (note 24)	197	-	890	-	-	**1,087**
Hybrid capital's redemption and dividend paid, net of tax	-	-	(4)	-	(40)	**(44)**
	197	**-**	**886**	**-**	**(40)**	**1,043**
Balance at 31 December 2019	**853**	**8,056**	**(3,054)**	**-**	**2**	**5,857**
	Note 37	Note 37	Note 38	Note 34	Note 39	

Notes on pages 6 to 131 form an integral part of these financial statements

Cash Flow Statement

	Note	Year ended 31 December 2019 € million	2018 Restated [1] € million
Cash flows from operating activities			
Profit before income tax (note 2.3.2)		**19**	56
Adjustments for :			
Impairment losses relating to loans and advances to customers	21	**529**	606
Impairment losses on goodwill	28	**62**	-
Other impairment losses, provisions and restructuring costs (note 2.3.2)	13	**110**	134
Depreciation and amortisation (note 2.3.2)	12	**78**	42
Other (income)/losses on investment securities	16	**(67)**	(159)
(Gain)/ loss on sale of subsidiaries, associates and joint ventures		**(2)**	33
Dividends from subsidiaries, associates and joint ventures	9	**(141)**	(122)
Valuation of investment property	27	**(45)**	3
Other adjustments		**4**	(26)
		547	567
Changes in operating assets and liabilities			
Net (increase)/decrease in cash and balances with central banks		**45**	(31)
Net (increase)/decrease in securities held for trading		**(31)**	(5)
Net (increase)/decrease in due from credit institutions		**(255)**	(81)
Net (increase)/decrease in loans and advances to customers		**(1,032)**	31
Net (increase)/decrease in derivative financial instruments		**137**	(74)
Net (increase)/decrease in other assets		**(131)**	(124)
Net increase/(decrease) in due to central banks and credit institutions		**(1,243)**	(5,866)
Net increase/(decrease) in due to customers		**3,558**	4,126
Net increase/(decrease) in other liabilities		**(81)**	(44)
		967	(2,068)
Net cash from/(used in) operating activities		**1,514**	(1,501)
Cash flows from investing activities			
Acquisition of fixed and intagible assets		**(103)**	(80)
Proceeds from sale of fixed and intangible assets		**1**	3
(Purchases)/sales and redemptions of investment securities		**1,105**	(21)
Acquisition of subsidiaries, associates, joint ventures and participation in capital increases	23,25	**(64)**	(3)
Proceeds from disposal/liquidation/capital decrease of holdings in subsidiaries, associates and joint ventures	23,11	**68**	188
Merger with Grivalia		**1**	-
Dividends from investment securities, subsidiaries, associates and joint ventures		**142**	161
Net cash from/(used in) investing activities		**1,150**	248
Cash flows from financing activities			
(Repayments)/proceeds from debt securities in issue	34	**(309)**	1,245
Repayment of lease liabilities	16	**(27)**	-
Redemption/ buy back of hybrid capital	39	**(42)**	(1)
Hybrid capital's dividend paid	39	**(3)**	(3)
Redemption on preference shares, net of expenses	34	**-**	(4)
Net cash from/(used in) financing activities		**(381)**	1,237
Net increase/(decrease) in cash and cash equivalents		**2,283**	(16)
Cash and cash equivalents at beginning of year	16	**490**	506
Cash and cash equivalents at end of year	16	**2,773**	490

[1] *The comparative information has been restated due to change in accounting policy for investment property (note 2.3.2).*

Notes on pages 6 to 131 form an integral part of these financial statements

1. General information

Eurobank Ergasias S.A. (the Bank) is active in retail, corporate and private banking, asset management, treasury, capital markets and other services. The Bank is incorporated in Greece and its shares are listed on the Athens Stock Exchange. The Bank operates mainly in Greece and through its subsidiaries in Central and Southeastern Europe.

These financial statements were approved by the Board of Directors on 12 March 2020. The Independent Auditor's Report of the Financial Statements is included in the section III of the Annual Financial Report.

2. Basis of preparation and principal accounting policies

The principal accounting policies applied in the preparation of the financial statements are set out below:

2.1 Basis of preparation

The financial statements of the Bank have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the 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 financial statements.

The 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) at fair-value-through-profit-or-loss and investment property measured at fair value.

The accounting policies for the preparation of the financial statements have been consistently applied to the years 2019 and 2018, after taking into account the amendments in IFRSs as described in section 2.1.1 "New and amended standards and interpretations" and the amendments described in section 2.2 "Principal accounting policies" following changes in the Bank's accounting policies. The comparative information has been restated due to change in accounting policy for investment property (note 2.3.2). 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 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 actions, actual results ultimately may differ from those estimates.

The Bank's presentation currency is the Euro (€). Except as indicated, financial information presented in Euro has been rounded to the nearest million.

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:

The Group operates in an environment of positive growth rates both in Greece (Group's main market) and the other countries, in which it has a substantial presence. Specifically, Greece's 2019 real GDP growth was at 1.9% according to the Hellenic Statistical Authority (ELSTAT) data (2018: 1.9%), while it was estimated at 2.4% in 2020, according to the European Commission's 2020 winter forecasts. The unemployment rate in December 2019 was at 16.3% (December 2018: 18.5%) based on ELSTAT data. On the fiscal front, according to the 2020 Budget, the primary surplus of Greece for 2019 is estimated at 3.7% of GDP, while the respective forecast for 2020 was estimated at 3.6% of GDP. However, the recent coronavirus outbreak is very possible to slash the above forecasts for 2020. In the context of the Enhanced Surveillance (ES), the first four consecutive quarterly reviews were successfully completed by December 2019, while the conclusion of the fifth review is expected by mid-March 2020. The capital controls imposed in July 2015 were fully abolished from 1 September 2019 onwards. On the back of this environment, the Greek state in 2019 managed to normalize and achieve continuous market access with the issuance of four bonds of various maturities. In January 2020, the Greek government issued a 15-year bond of € 2.5 billion at a yield of 1.9%. The yield of the 10-year benchmark bond was at 1.46% on 31 December 2019, compared to 4.40% on 31 December 2018. Additionally, according to the ECB's decision notified to the Bank on 6 March 2020, it has been concluded that the reasons to impose sovereign limits on the Greek banks' (including Eurobank) exposure towards the Hellenic Republic have ceased to exist and therefore its previous decision on those limits shall be repealed.

Regarding the outlook for the next 12 months, the major macroeconomic risks and uncertainties in Greece are associated with (i) the implementation of the reforms and privatizations' agenda in order to meet the ES targets and milestones, (ii) the implementation of the Public Investments Program according to the respective 2020 Budget targets, (iii) the attraction of new investments in the country and (iv) the geopolitical and macroeconomic conditions in the near or in broader region, including the impact of a persistent low/negative rates' environment and the external shocks from a slowdown in the regional and/ or global economy. A major challenge for the international community is the recent coronavirus outbreak whose economic effect is mainly related with the disruption of trade and global supply chains and the risks that it might create for the world growth for 2020. In case of a global slowdown in economic activity, an adverse impact on certain industries of the Greek economy, such as tourism, manufacturing sector and shipping cannot be ruled out. Materialization of those risks would have potentially adverse effects on the fiscal planning of the Greek sovereign and on the liquidity, solvency and profitability of the Greek banking sector, as well as on the realization of their NPE's reduction plans. The Group monitors closely the developments in the Greek and regional macroeconomic environment taking into account its direct and indirect exposure to sovereign risk.

The merger with Grivalia completed in May 2019 has further enhanced Eurobank's capital with the total CAD and the CET1 ratios amounting to 19.2% and 16.7% (Bank: 19.4% and 16.5%) respectively as at 31 December 2019 . The Group's net profit attributable to shareholders amounted to € 127 million (€ 257 million net profit from continuing operations before € 66 million restructuring costs after tax and € 62 million goodwill impairment) for the year ended 31 December 2019, while the Bank's after tax result amounted to a profit of 31 million. Furthermore, the Bank has eliminated the use of ELA as of end January 2019. As at 31 December 2019, the Group deposits have increased by € 5.7 billion (out of which € 1.1 billion is associated with the acquisition of Piraeus Bank Bulgaria) to € 44.8 billion (2018: € 39.1 billion), improving the Group's (net) loans to deposits (L/D) ratio to 83.2% as at 31 December 2019 (2018: 92.6%). In the context of the internal liquidity stress test framework, which is part of the 2019 ILAAP (Internal Liquidity Adequacy Assessment Process), the results of the short and medium term liquidity stress tests indicate that the Bank has adequate liquidity buffer to withstand to all of the stress test scenario effects.

In 2019, the Group, after completing in September the sale of 95% of the mezzanine and junior notes of a securitization of a residential mortgage loan portfolio with a gross book value of ca. € 2 billion (project Pillar comprising primarily NPEs - note 20) and executing its organic NPE reduction strategy, managed to decrease its NPEs at amortised cost by € 3.7 billion to € 13.0 billion (Bank: € 12.0 billion), driving the NPE ratio to 29% (2018: 37%), while the Bank's NPE ratio was 33.15% (2018: 40.8%).

The Greek government in order to support the reduction of non-performing loans (NPL) of banks designed an asset protection scheme ('APS'), approved by European Commission in October 2019, to assist them in securitizing and moving non-performing loans off their balance sheets. In December 2019 the Bank, following the enactment of the 'APS' law (note 5) and its decision to opt-in for all the senior notes of the Cairo transaction, has entered into binding agreements for: a) the sale of 20% of the mezzanine and the minimum required percentage (as per 'APS') of junior notes of a securitization of a mixed assets portfolio with a gross book value of ca. € 7.5 billion (project Cairo comprising primarily NPEs - note 34) and b) the sale of a majority stake in Financial Planning Services S.A. (FPS), the licensed 100%-owned loan servicer of Eurobank (project Europe - note 30). The above projects are a key component of the Group's frontloaded NPE reduction plan for the achievement of the targeted NPE ratio of ca. 16% in the first quarter of 2020 and a single digit ratio by 2021.

In response to the coronavirus outbreak, on 12 March 2020, the ECB announced a number of temporary capital and operational relief measures to ensure that its directly supervised banks can continue to fulfil their role in funding the real economy. Banks will be allowed to use capital and liquidity buffers and cover Pillar 2 requirements with other than CET 1 instruments. On the same date the EBA decided to postpone the EU-wide stress test exercise to 2021 to allow banks to focus on and ensure continuity of their core operations, including support for their customers. The ECB stated that it supports the above EBA decision and will extend the postponement to all banks (including Eurobank) subject to the 2020 stress test (note 4). In addition, the EBA stated that there is flexibility in the implementation of the EBA Guidelines on management of non-performing and forborne exposures and called for a close dialogue between supervisors and banks, also on their non-performing exposure strategies, on a case by case basis (note 5.2).

Going concern assessment

The Board of Directors, taking into account the above factors relating to the adequacy of the Bank's capital and liquidity position as well as the progress that has been made in executing its NPE reduction acceleration plan, has been satisfied that the financial statements of the Bank can be prepared on a going concern basis.

2.1.1 New and amended standards and interpretations

New and amended standards adopted by the Bank as of 1 January 2019

The following new standards, amendments to standards and new interpretations as issued by the International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IC) and endorsed by the European Union (EU), apply from 1 January 2019:

IFRS 9, Amendments–Prepayment Features with Negative Compensation

The amendments in IFRS 9 requirements allow the measurement of a financial asset at amortised cost, or at fair value through other comprehensive income (FVOCI), depending on the business model, even in the case of prepayment options which could result in the party that triggers the early termination, receiving compensation from the other party (negative compensation). Therefore, these financial assets can now be measured at amortised cost or at FVOCI, regardless of the event or circumstance that caused the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination. Applying IFRS 9 before the amendments would probably result in these financial assets failing the "Solely Payments of Principal and Interest" criterion and thus being measured at FVTPL.

The amendments also confirm the modification accounting of financial liabilities under IFRS 9. Specifically, when a financial liability measured at amortised cost is modified without this to result in derecognition, a gain or loss, calculated as the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate, should be recognized in profit or loss.

The adoption of the amendments had no impact on the Bank's financial statements.

IFRIC 23, Uncertainty over Income Tax Treatments

The interpretation clarifies the application of the recognition and measurement requirements of IAS 12 'Income Taxes' when there is uncertainty over income tax treatments. In such a circumstance, recognition and measurement of current or deferred tax asset or liability according to IAS 12 is based on taxable profit (tax loss), tax bases, unused tax losses and tax credits and tax rates as determined by applying IFRIC 23.

According to the interpretation, each uncertain tax treatment is considered separately or together as a group, depending on which approach better predicts the resolution of the uncertainty. The entity also assumes that the taxation authority that will examine these uncertain tax amounts, has a right to examine and has full knowledge of all related information when making those examinations.

If an entity concludes that it is probable that the taxation authority will accept an uncertain tax treatment, it will determine its taxable profits, tax bases, tax losses, tax credits and tax rates consistently with that treatment. If it concludes that it is not probable that the uncertain tax treatment will be accepted, the effect of the uncertainty in its income tax accounting should be reflected in the period in which that determination is made, using the method that best predicts the resolution of the uncertainty (i.e. the single most likely amount, or the expected value method which follows a probability weighted approach).

Judgments and estimates that are made for the recognition and measurement of the effect of the uncertain tax treatments should be reassessed whenever circumstances change or new information that affects those judgments arise (e.g. actions by the tax authority, evidence that it has taken a particular position in connection with a similar item or the expiry of its right to examine a particular tax treatment).

The adoption of the interpretation had no impact on the Bank's financial statements.

IFRS 16, Leases

IFRS 16, which supersedes IAS 17 'Leases' and related interpretations, introduces a single, on-balance sheet lease accounting model for lessees, under which the classification of leases for a lessee, as either operating leases or finance leases, is eliminated and all leases are treated similarly to finance leases under IAS 17.

The definition of a lease under IFRS 16 mainly relates to the concept of control. The new standard distinguishes between leases and service contracts on the basis of whether the use of an identified asset is controlled by the customer. Control is considered to exist if the customer has:

- The right to obtain substantially all of the economic benefits from the use of an identified asset; and

- The right to direct the use of that asset.

IFRS 16 provides for the recognition of a 'right-of-use-asset' and a 'lease liability' upon lease commencement in case that there is a contract, or part of a contract, that conveys to the lessee the right to use an asset for a period of time in exchange for a consideration.

The right-of-use-asset is, initially, measured at cost, consisting of the amount of the lease liability, plus any lease payments made to the lessor at or before the commencement date less any lease incentives received, the initial estimate of restoration costs and any initial direct costs incurred by the lessee and, subsequently, at cost less accumulated depreciation and impairment. The lease liability is initially recognized at an amount equal to the present value of the lease payments during the lease term that are not yet paid.

Consequently, the typical straight line operating lease expense of operating leases under IAS 17 is replaced by the depreciation charge of the 'right-of-use-asset' and the interest expense on the 'lease liability'. The recognition of assets and liabilities by lessees, as described above, is not required for certain short term leases and leases of low value assets. The accounting treatment for lessors is not substantially affected by the requirements of IFRS 16.

Adoption of IFRS 16

The Bank implemented the requirements of IFRS 16 on 1 January 2019. The Bank has chosen the modified retrospective application of IFRS 16 and therefore the comparative information was not restated.

Upon transition, the Bank adopted the practical expedient available on transition to IFRS 16 not to reassess whether a contract is or contains a lease. Accordingly, existing contracts previously classified as service contracts such as ATMs, APSs and printing services were not classified as leases under IFRS 16, while the definition set out in IFRS 16 is applied to all lease contracts entered into or modified on or after 1 January 2019.

In accordance with IFRS 16, at the commencement date of the lease, the Bank as a lessee recognises right-of-use assets and lease liabilities in the balance sheet, initially measured at the present value of the future lease payments.

The Bank applied this initial measurement principle to all leases, except for those with a lease term of 12 months or less, and leases of low value (i.e. less than € 5,000) - making use of the relevant short-term leases and leases of low-value assets exemptions. The Bank also adopted the practical expedient not to separate non-lease components from lease components.

In applying the modified retrospective transition approach, the Bank used the following main estimates and judgments:

- In determining the lease term for the leases in which the Bank is the lessee, including those leases having an indefinite life, all relevant facts and circumstances, such as future housing needs and expected use, were considered and judgment was exercised. Furthermore, options to extend or terminate the lease that are reasonably certain to exercise were considered. These estimates will be revisited on a regular basis over the lease term.
- The present value of the lease liabilities was measured by using the incremental borrowing rate on the transition date, since the interest rate implicit in the leases was not readily determinable. The incremental borrowing rate was derived from the estimated covered bonds yield curve, which is constructed based on observable Greek Government Bond yields. The weighted average discount rate used to determine the lease liabilities was 2.6% and will be recalculated on a regular basis, using updated input.
- Applicable taxes, Value Added Tax and stamp duties were excluded from the scope of IFRS 16 calculations.

The quantitative impact of applying IFRS 16 as at 1 January 2019 is disclosed in note 2.3.1.

IAS 28, Amendments – Long -Term Interests in Associates and Joint Ventures

The amendments clarify that IFRS 9 'Financial Instruments' including its impairment requirements, applies to long -term interests in associates or joint ventures that form part of the entity's net investment in the associate or joint venture but are not accounted for using the equity method of accounting.

According to the amendments, an entity should not take into account any adjustments to the carrying amount of long term interests (net investment in the associate or joint venture), resulting from the application of IAS 28 'Investments in Associates and Joint Ventures' when applying IFRS 9.

The adoption of the amendments had no impact on the Bank's financial statements.

IAS 19, Amendments –Plan Amendment, Curtailment or Settlement

The amendments clarify that when a change to a defined benefit plan i.e. an amendment, curtailment or settlement takes place and a remeasurement of the net defined benefit liability or asset is required, the updated actuarial assumptions from the remeasurement should be used to determine current service cost and net interest for the remainder of the reporting period after that event. Additionally, the amendments include clarifications about the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling.

The adoption of the amendments had no impact on the Bank's financial statements.

Annual Improvements to IFRSs 2015-2017 Cycle

The improvements introduce key changes to several standards as set out below:

The amendments to IFRS 3 'Business Combinations' and IFRS 11 'Joint Arrangements' clarified how an entity accounts for increasing its interest in a joint operation that meets the definition of a business. Specifically, when an entity obtains control of a business that is a joint operation, then the transaction constitutes a business combination achieved in stages and the acquiring party re-measures the entire previously held interest in the assets and liabilities of the joint operation at fair value. In case when a party that participates in, but does not have joint control of, a joint operation obtains joint control of the joint operation, then the previously held interest is not re-measured.

The improvement to IAS 12 'Income Taxes' clarified that all income tax consequences of dividends, including payments on financial instruments classified as equity, should be recognized in profit or loss, other comprehensive income or equity, according to where the originating transaction or event that generated distributable profits giving rise to the dividend, was recognized.

IAS 23 'Borrowing costs' amendments clarified that any borrowing originally performed to develop a qualifying asset should be treated as part of the funds that the entity borrowed generally, when substantially all of the activities necessary to prepare that asset for its intended use or sale are complete.

The adoption of the amendments had no impact on the Bank's financial statements.

New standards, amendments to standards and interpretations not yet adopted by the Bank

A number of new standards, amendments to existing standards and interpretations are effective after 2019, as they have not yet been endorsed by the European Union, or have not been early applied by the Bank. Those that may be relevant to the Bank are set out below:

Interest Rate Benchmark Reform: Amendments to IFRS 9, IAS 39 and IFRS 7 (effective 1 January 2020)

In September 2019, the IASB issued amendments to IFRS 9 'Financial Instruments', IAS 39 'Financial Instruments: Recognition and Measurement' and IFRS 7 'Financial Instruments: Disclosures' to address the implications for certain hedge accounting requirements related to the uncertainties arising from the market-wide reform of several interest rate benchmarks (referred to as 'IBOR reform'). As a result of the IBOR reform, there may be uncertainties about: a) the interest rate benchmark designated as a hedged risk and/or b) the timing or amount of the benchmark-based cash flows of the hedged item or the hedging instrument, during the period before the replacement of an existing interest rate benchmark with an alternative nearly risk-free interest rate (an 'RFR'). The amendments modify certain hedge accounting requirements under IAS 39 or IFRS 9 to provide temporary reliefs from the potential effect of uncertainty, during the transition period. These reliefs are related mainly to the highly probable requirement for the cash flows hedges, the compliance with the identifiable nature of the risk component and the application of prospective and retrospective effectiveness tests.

The IASB addresses the IBOR reform and its potential effects on financial reporting in two phases. These amendments conclude phase one that focuses on hedge accounting issues affecting financial reporting in the period before the interest rate benchmark reform, while the second phase focuses on potential issues that might affect financial reporting once the existing rates are replaced with an RFR.

As described in note 2.2.3, the Bank elected, as a policy choice permitted under IFRS 9, to continue to apply hedge accounting in accordance with IAS 39. Therefore, the amendments to IAS 39 and IFRS 7 will be applicable for the Bank.

The Bank has set up an IBOR transition program to implement the transition to alternative interest rates that focuses on key areas of impact on customers' contracts, systems and processes, financial reporting, valuation, capital and liquidity planning and communication (refer to note 5.2.4).

The Bank is currently assessing the amendments in order to define the extent to which the reliefs provided will be applied in its hedging relationships.

Amendments to the Conceptual Framework for Financial Reporting, including amendments to references to the Conceptual Framework in IFRS Standards (effective 1 January 2020)

In March 2018, the IASB issued its revised "Conceptual Framework for Financial Reporting" (Conceptual Framework). The revised Conceptual Framework is not a standard nor overrides any requirements of individual standards. This replaces the previous version of the Conceptual Framework issued in 2010. Revisions performed by IASB introduced guidance on measurement, presentation and disclosure on derecognition concepts. In addition, the revision includes updated definitions of an asset/liability and of recognition criteria, as well as clarifications on important areas.

Alongside the revised Conceptual Framework, the IASB has published an accompanying document "Amendments to References to the Conceptual Framework in IFRS Standards" which contains consequential amendments to affected standards so that they refer to the revised Framework.

The adoption of the amended Framework is not expected to impact the Bank's financial statements.

Amendments to IFRS 3 Business Combinations (effective 1 January 2020, not yet endorsed by EU)

The IASB issued amendments to the definition of a business in IFRS 3 "Business Combinations" to help entities determine whether an acquired set of activities and assets is a business or not. They clarify the minimum requirements for a business, remove the assessment of whether market participants are capable of replacing any missing elements and add guidance to help entities assess whether an acquired process is substantive. In addition, with the introduction of the amendments the definitions of a business and of outputs are narrowed, while an optional fair value concentration test is introduced.

The adoption of the amendments is not expected to impact the Bank's financial statements.

Amendments to IAS 1 and IAS 8: Definition of Material (effective 1 January 2020)

The amendments to IAS 1 "Presentation of Financial Statements" and IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" aim to align the definition of 'material' across the standards and to clarify certain aspects of the definition. According to the new definition, information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments clarify that materiality will depend on the nature or magnitude of information, or both.

The adoption of the amendments is not expected to impact the Bank's financial statements.

IAS 1, Amendments, Classification of Liabilities as Current or Non-Current (effective 1 January 2022, not yet endorsed by EU)

The amendments 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, a entity can ignore only those conversion options that are recognised as equity.

The adoption of the amendments is not expected to impact the Bank's financial statements.

IFRS 17, Insurance Contracts (effective 1 January 2021, not yet endorsed by EU)

IFRS 17, which supersedes IFRS 4 'Insurance Contracts' provides a comprehensive and consistent accounting model for insurance contracts. It applies to insurance contracts issued, all reinsurance contracts and to investment contracts with discretionary participating features provided that the entity also issues insurance contracts. 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 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 2019, the IASB issued exposure draft Amendments to IFRS 17, including a deferral of the effective date by one year, so that entities would be required to apply IFRS 17 for annual periods beginning on or after 1 January 2022.

IFRS 17 is not relevant to the Bank's activities, other than through its associate Eurolife ERB Insurance Group Holdings S.A.

2.2 Principal accounting policies

2.2.1 Investments in subsidiaries, associates and joint ventures

Investments in subsidiaries, associates and joint ventures, including investments acquired through common control transactions, are accounted at cost less any impairment losses. Cost is the fair value of the consideration given being the amount of cash or shares issued, or if that cannot be determined reliably, the consideration received together with any directly attributable costs.

As an exception to the above measurement basis, when the Bank transfers an existing Group entity or business sector to a new subsidiary formed for this purpose in a share for share exchange that does not have commercial substance, the Bank's investment in that newly formed subsidiary is recognized at the carrying amount of the transferred entity.

Legal mergers that involve the combination of the Bank with one or more of its subsidiaries are accounted for by using the pooling of interest method (also known as merger accounting) pursuant to IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" 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 interest method, the Bank incorporates the acquired assets and liabilities of the merged subsidiary at their carrying amounts in the financial statements as of the date of the legal merger without any fair value adjustments. Any difference between the carrying amount of the investment in the merged subsidiary before the legal merger, and the carrying amount of net assets acquired is recognized in the Bank's equity.

Legal mergers that involve the absorption of an entity by the Bank, other than an entity under common control, are accounted for by using the purchase method of accounting pursuant to IFRS 3 for business combinations. The consideration transferred for the 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. Under the purchase method of accounting, the identifiable assets acquired and liabilities and contingent liabilities assumed are measured initially at their fair values at the acquisition date. 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 excess of the consideration transferred 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 entity 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 the acquisition is incomplete by the end of the reporting period in which it occurs, the Bank 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.

For acquisitions of entities not meeting the definition of a business, the Bank 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 merged subsidiaries or other entities have been changed to ensure consistency with the policies of the Bank.

A listing of the Bank's subsidiaries, associates and joint ventures is set out in notes 23 and 25, respectively.

2.2.2 Foreign currencies

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 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, including foreign exchange contracts, forward currency agreements and interest rate options (both written and purchased), currency and interest rate swaps, and other derivative financial instruments, are initially recognized in the balance sheet at fair value on the date on which a derivative contract is 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 2.2.12 and 5.3.

Embedded derivatives

Financial assets that contain embedded derivatives are recognised in the balance sheet in their entirety in the appropriate classification category, following 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 Bank's activities and aims principally at managing risk effectively.

Accordingly, the Bank, 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:

- Reduction of interest rate exposure that is in excess of the Bank's interest rate limits
- Efficient management of interest rate risk and fair value exposure
- Management of future variable cash flows
- Reduction of foreign currency risk or inflation risk

Hedge accounting

The Bank 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 Bank forms a hedging relationship between a hedging instrument and a related item or group of items to be hedged. A hedging instrument is a designated derivative 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.

Specifically, the Bank designates certain derivatives as: (a) hedges of the exposure to changes in fair value of recognized assets or liabilities or unrecognized firm commitments (fair value hedge), (b) hedges of the exposure to variability in cash flows of recognized assets or liabilities or highly probable forecasted transactions (cash flow hedge).

In order to apply hedge accounting, specified criteria should be met. Accordingly, at the inception of the hedge accounting relationship, the Bank 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 Bank 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 Bank 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 Bank 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 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 Bank 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 will be inherent in each of the items in the group.

(i) Fair value hedge

The Bank applies fair value hedging to hedge exposures primarily to changes in the fair value attributable to interest rate risk and currency risk.

The items that qualify for fair value hedge accounting include fixed rate debt securities classified as FVOCI and amortized cost financial assets, fixed rate term deposits or term loans measured at amortized cost, as well as fixed rate debt securities in issue.

The interest rate and currency risk with respect to the applicable benchmark rate may be hedged using interest rate swaps and cross currency swaps.

The Bank uses the dollar-offset method in order to assess the effectiveness of fair value hedges. 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. 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.

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with the changes in the fair value of the hedged assets or liabilities that are attributable to the hedged risk.

The Bank discontinues hedge accounting 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 period to maturity. 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.

(ii) Cash flow hedge

The Bank 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 Bank 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 Bank 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 Bank uses the dollar-offset method.

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.

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) Derivatives not designated as hedging instruments for hedge accounting purposes

Changes in the fair value of derivative financial instruments that are not designated as hedging instruments or do not qualify for hedge accounting are recognized in the income statement.

The fair values of derivative instruments held for trading and hedging 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 Bank currently has a legally enforceable right to set off the recognized amounts and intends either to settle 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 is 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 Bank estimates 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 Bank 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 all fees and points paid or received that are an integral part of the effective interest rate, transaction costs, and all 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 Bank 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 Bank 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.

For financial assets that were credit-impaired on initial recognition (POCI) interest income is calculated by applying the credit-adjusted EIR (calculated as described above) to the POCI asset's amortized cost. For such assets even if the credit risk improves, interest income does not revert to gross basis calculation. For inflation-linked instruments the Bank 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.

Interest income and expense is 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 Bank's financial statements which may be partially in the scope of IFRS 9 and partially in the scope of IFRS 15, the Bank 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, plant and equipment and Investment property

(i) Property, plant and equipment

Property, plant 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 Bank 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, plant and equipment, to their residual values over their estimated useful life as follows:

- Land: no depreciation;
- Freehold buildings: 40-50 years;
- Leasehold improvements: over the lease term or the useful life of the asset if shorter;
- Computer hardware and software: 4-10 years;
- Other furniture and equipment: 4-20 years; and
- Motor vehicles: 5-7 years.

(ii) Investment property

In the fourth quarter of 2019, the Bank voluntarily changed its accounting policy regarding the measurement of Investment Property from cost model to fair value model according to IAS 40 "Investment property". In accordance with IAS 8 "Accounting policies, changes in accounting estimates and errors", the above change in the Bank's accounting policy on Investment Property was applied retrospectively as of 1 January 2018 (note2.3.2).

Property held for rental yields and/or capital appreciation that is not occupied by the Bank 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 Bank 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, plant and equipment and its fair value at the date of reclassification becomes its deemed cost. If an item of property, plant 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 profit or loss.

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 2.2.24 are met.

2.2.7 Intangible assets

(i) Goodwill

Goodwill arising on legal mergers that involve the absorption of an entity by the Bank, other than an entity under common control, represents the excess of the aggregate of the fair value of the consideration transferred and the acquisition date fair value of any previously held equity interest in the acquiree over the fair value of the Bank's share of net identifiable assets and contingent liabilities acquired. Goodwill arising is included in 'intangible assets' and is measured at cost less accumulated impairment losses.

(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 Bank 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 15 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 legal mergers that involve the absorption of an entity by the Bank, other than an entity under common control, is not amortized but tested for impairment annually or more frequently if there are any indications that impairment may have occurred. The Bank's impairment test is performed each year end. The Bank 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 is allocated to each Cash Generating Unit (CGU) or groups of CGUs that are expected to benefit from the synergies of the merger. Each unit or group of units to which the goodwill is allocated represents the lowest level within the Bank at which goodwill is monitored for internal management purposes. The Bank monitors goodwill either at the separate CGU or group of CGUs consistent with the internal monitoring of operating segments.

The Bank 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 operation within that CGU include the carrying amount of goodwill relating to the operation disposed of.

(ii) Other non-financial assets

Other non- financial assets, including property, plant and equipment and other intangible assets, are assessed for indications of impairment at each reporting date. 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 Bank's associates and joint ventures are determined in accordance with this accounting policy.

2.2.9 Financial assets

Financial assets - Classification and measurement

The Bank 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 Bank commits to purchase or sell the assets. Loans originated by the Bank are recognized when cash is advanced to the borrowers.

Financial Assets measured at Amortized Cost ('AC')

The Bank 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 direct and incremental transaction costs, and are subsequently measured at amortized cost, using the effective interest rate (EIR) method (as described in 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 Bank 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 direct and incremental transaction costs.

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 Bank 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 Bank 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, unless they are designated and effective hedging instruments, in which case hedge accounting requirements under IAS 39 continue to apply.

Furthermore, a financial asset that meets the above conditions to be classified at AC or FVOCI, may be irrevocably designated by the Bank 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 Bank manages a group of assets to generate cash flows. That is, whether the Bank'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 Bank'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 Bank 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 Bank'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 vehicles established by the Bank 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 Bank'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 Bank 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 Bank 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. Moreover, for the securitized notes issued by special purpose vehicles and held by the Bank, the cash flow characteristics of 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 Bank 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 special purpose entities, the Bank 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 Bank 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 Bank 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 Bank, 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 Bank 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 vehicles established by the Bank and debt securities the assessment is performed on an individual basis.

Derecognition of financial assets

The Bank 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 Bank 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 Bank 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. 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 Bank 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 purposes vehicles, as well as the securitization's contractual terms that may indicate that the Bank 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.

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 Bank 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.

The Bank 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 Bank 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 Bank. 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 Bank's income statement.

2.2.10 Reclassifications of financial assets

The Bank 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 Bank 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 Bank's competent Committees and the amendment is reflected appropriately in the Bank'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 Bank with different business models, are not considered by the Bank 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 Bank 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.

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 are those liabilities that the Bank incurs principally for the purpose of repurchasing in the near term for short term profit.

The Bank 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; 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 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 Bank'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 Bank 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 Bank 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 Bank repurchases any debt instruments issued by the Bank, 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 Bank has access at that date. The fair value of a liability reflects its non-performance risk.

When available, the Bank 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 Bank 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 Bank 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 Bank 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 (note 5.3).

For assets and liabilities that are measured at fair value on a recurring basis, the Bank 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 Bank 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 vehicles established by the Bank, 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 Bank 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-months 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 Bank applies a default definition for accounting purposes, which is consistent with the European Banking Authority (EBA) definition for non-performing exposure (refer to note 5.2.1.2). The accounting definition of default is 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 past due event.
- The Bank, for economic or contractual reasons relating to the borrower's financial difficulty, has granted to the borrower a concession(s) that the Bank 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 Bank 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 Bank determines the risk of default using an internal credit rating scale. The Bank 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 Bank 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 Bank 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 Bank 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 Bank'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 Bank takes into consideration the changes of internal ratings by a certain number of notches. In addition, a watchlist status is also considered by the Bank as a trigger for SICR identification. Internal credit risk ratings models include borrower specific information as well as, forward-looking information including macroeconomic variables.

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 Bank are considered as a SICR indicator and thus the exposures are allocated into Stage 2 upon forbearance, unless they are considered credit-impaired in which case 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 Bank 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.

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 Bank applies the same principles for assessing SICR since initial recognition when estimating ECL on a collective or on an individual basis.

The Bank 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 Bank 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 Bank, 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 Bank in accordance with the contractual terms of the instrument and the cash flows that the Bank 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 Bank expects to receive.

The Bank estimates expected cash shortfalls, which reflect the cash flows expected from all possible sources, including collateral 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 Bank 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 Bank's expected credit risk management actions to mitigate credit risk and past practice.

Receivables from customers arising from the Bank'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 Bank 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 an unbiased and probability-weighted amount.

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 Bank 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 Bank assigns internal credit ratings to each issuer/counterparty based on these PDs. In case of counterparties for which no information is available, the Bank 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 Bank'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 Bank 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 Bank distinguishes its loan portfolios into two broad categories i.e. secured and unsecured. The Bank 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 Bank 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 base scenario represents the most likely scenario and is aligned with the information used by the Bank 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 Bank 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, etc. In order to capture material non – linearities in the ECL model, in the case of individually significant exposures, the Bank 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 Bank 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 Bank 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 Bank's procedures for recovery of amounts due.

2.2.14 Sale and repurchase agreements and securities lending

(i) Sale and repurchase agreements

Securities sold subject to repurchase agreements (repos) continue to be recorded in the Bank's Balance Sheet as the Bank 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. Securities purchased under agreements to resell (reverse repos) are recorded as loans and advances to other banks or customers, as appropriate. 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

Securities lent to counterparties are retained in the financial statements. Securities borrowed are not recognized in the financial statements, unless these are sold to third parties, in which case the obligation to return them is recorded at fair value as a trading liability.

2.2.15 Leases

Policy applicable after 1 January 2019

(i) Accounting for leases as lessee

When the Bank 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 Bank acquires control of the physical use of the asset.

Lease liabilities are presented within Other liabilities and RoU assets within Property, plant 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 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 Bank 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.

(ii) Accounting for leases as lessor

At inception date of the lease, the Bank, acting as a lessor, classifies each of its leases as either an operating lease or a finance lease based on certain criteria.

Finance leases

At commencement date, the Bank 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 profit or loss, 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 Bank 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 Bank 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 Bank 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 Bank recognizes lease payments from the lessees as income on a straight-line basis. Also it recognizes costs, including depreciation, incurred in earning the lease income as an expense. The Bank 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 Bank, 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 Bank 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.

Policy applicable before 1 January 2019

(i) Accounting for leases as lessee

Finance leases:

Leases of property, plant and equipment where the Bank has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are recognized, at the inception of the lease term, at the lower of the fair value of the leased asset or the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charge so as to achieve a constant rate of interest on the liability outstanding. The property, plant and equipment acquired under finance leases is depreciated over the shorter of the useful life of the asset or the lease term.

Operating leases:

Leases, where a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases under which the leased asset is not recognized on balance sheet. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease.

(ii) Accounting for leases as lessor

Finance leases:

When assets are leased out under finance leases, the present value of the lease payments is recognized under loans and receivables. The difference between the gross receivable (gross investment) and the present value of minimum lease payments (net investment) is recognized as unearned future finance income and is deducted from loans and advances. Lease income is recognized over the term of the lease using the net investment method, which reflects a constant periodic rate of return. Finance lease receivables are assessed for impairment losses in accordance with Bank's impairment policy for financial assets as described in note 2.2.13.

Operating leases:

Assets leased out under operating leases are included in property, plant and equipment or investment property, as appropriate, in the balance sheet. They are depreciated over their expected useful lives on a basis consistent with similar owned property, plant and equipment. Rental income (net of any incentives given to lessees) is recognized on a straight-line basis over the lease term.

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, is recognized as an expense in the period in which profits arise.

(ii) Deferred income tax

Deferred income 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 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 relating to loans, Private Sector Initiative (PSI+) tax related losses, losses from disposals and crystallized write-offs of loans, depreciation of property, plant 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 Bank 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 investment 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 Bank 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 , the Bank 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 Bank'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 Bank 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 Bank presents in its balance sheet all uncertain tax balances as current or deferred tax assets or liabilities.

The Bank as a general rule has opted to obtain 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, is provided in note 14.

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 Bank 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 Bank'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 Bank operates unfunded defined benefit plans in Greece under the regulatory framework. In accordance with the local labor legislation, the Bank provides for staff retirement indemnity obligation for employees which 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 Bank 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. 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 Bank'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 Bank 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 Bank 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 Bank). The Bank recognizes termination benefits at the earlier of the following dates: (a) when the Bank can no longer withdraw the offer of those benefits; and (b) when the Bank 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 Bank'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 Bank's shareholders.

(v) Performance-based share-based payments

The Bank's Management awards employees with bonuses in the form of shares and share options on a discretionary basis. 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 shares granted is recognized as an employee benefit expense with a corresponding increase in share capital (par value) and share premium.

The fair value of the options granted is recognized as an employee benefit expense with a corresponding increase in a non-distributable reserve over the vesting period. The proceeds received net of any directly attributable transaction costs are credited to share capital (par value) and share premium when the options are exercised, with a transfer of the non distributable reserve to 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 Bank 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 Bank include:

(a) an entity that has control over the Bank 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 Bank and entities controlled by this entity,
(c) members of key management personnel of the Bank, their close family members and entities controlled or jointly controlled by the abovementioned persons;
(d) associates and joint ventures of the Bank; and
(e) subsidiaries.

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 Bank 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 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 Bank's equity when approved by the General Meeting of shareholders. Interim dividends are recognized as a deduction in the Bank's equity when approved by the Board of Directors.

Where the Bank purchases own shares (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.

2.2.22 Hybrid capital

Hybrid capital issued by the Bank, through its special purpose entity, is 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 hybrid capital are shown in equity as a deduction from the proceeds, net of tax.

Dividend distribution on hybrid capital is recognized as a deduction in the Bank's equity on the date it is due.

Where hybrid capital, issued by the Bank, is 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.

2.2.23 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. Such financial guarantees are granted to banks, financial institutions and other bodies on behalf of customers to secure loans, overdrafts and other banking facilities.

Financial guarantees are initially recognized at fair value. Subsequent to initial recognition, such guarantees are measured at the higher of the amount of the impairment loss allowance, and the amount initially recognised less any cumulative amortization of the fee earned, where appropriate.

Commitments to extend credit

Commitments represent off-balance sheet items where the Bank 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 Bank, for which an impairment allowance is recognised under IFRS 9.

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

2.2.24 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 Bank presents discontinued operations in a separate line in the income statement if a component of the Bank's operations 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 or
(b) Is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations.

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. Upon classification of a component of the Bank's operations as a discontinued operation, the Bank restates prior periods in the income statement.

2.2.25 Cash and cash equivalents

Cash and cash equivalents include cash in hand, unrestricted deposits with central banks, due from credit institutions and other short-term highly liquid investments with original maturities of three months or less.

2.2.26 Fiduciary activities

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

2.3 Impact of significant changes in applying accounting policies

2.3.1 IFRS 16 'Leases' – Impact of adoption

The Bank implemented the requirements of IFRS 16 on 1 January 2019, as further analyzed in note 2.1.1. The impact of the transitioning to the new standard is discussed below.

On 1 January 2019, the Bank recognised right-of-use assets of € 280 million and lease liabilities of an equivalent amount arising from leases of properties and vehicles, with no impact on shareholders' equity. The capital impact arising primarily from the increase in risk-weighted assets was a reduction of approximately 11 bps on the Bank's common equity Tier I ratio by applying regulatory transitional arrangements (approximately -9 bps on the Bank's CET1 ratio, on a fully loaded basis).

It is noted that € 114 million of the above mentioned right-of-use assets and of the corresponding lease liabilities were related to properties on lease from Grivalia. Following the merger of Eurobank with Grivalia (note 24), these assets and liabilities have been derecognized in the second quarter of 2019, as the related properties have become own used assets of the combined group.

With regard to subsequent measurement, the Bank, acting as a lessee, applies the cost model for the measurement of right-of-use asset. Accordingly, the right-of-use asset is measured at cost less any accumulated depreciation and accumulated impairment losses as determined in accordance with IAS 36, and is adjusted for the remeasurement of the lease liability.

On the other hand, interest expense is recognized on the lease liabilities, while their carrying amount is reduced to reflect the lease payments made. In case of any reassessments or lease modifications specified, the carrying amount of the lease liabilities is remeasured to reflect revised lease payments. For the year ended 31 December 2019, the depreciation charge for right-of-use assets was € 29 million and the interest expense recognised on lease liabilities was € 3 million.

The following table presents the reconciliation between the operating lease commitments, as disclosed under IAS 17 in the financial statements for the year ended 31 December 2018 and the lease liabilities recognised under IFRS 16 on 1 January 2019:

	€ million
Non-cancellable operating lease rentals payable under IAS 17	**107**
Plus: Future contractual lease payments (in excess of non-cancellable term)	118
Total future contractual operating lease payments	**225**
Plus: Re-estimation of lease term [(1)]	105
Adjusted total operating lease commitments as at 31 December 2018	**330**
Less: Recognition exemption for short term leases and leases of low value	(3)
Less: Exclusion of Stamp Duty, VAT and other applicable taxes from the lease payments	(10)
Undiscounted lease liabilities as at 31 December 2018	**317**
Less: Discounting effect of the lease liabilities using the incremental borrowing rate as at 1 January 2019	(37)
Total lease liabilities recognised as at 1 January 2019 under IFRS 16	**280**

[(1)] *The re-estimation of total future contractual lease payments includes primarily:*

a) contracts that expire in 2019 but the Bank expects to renew and has reset their term,

b) contracts with indefinite duration for which the Bank has determined the term that it expects to occupy the leased asset, and

c) re-assessment of extension and termination options.

There was no impact from the adoption of IFRS 16 for the leases in which the Bank is a lessor.

2.3.2 IAS 40 'Investment property' – Impact of change in accounting policy to Fair value model

In the fourth quarter of 2019, the Bank has elected to change its accounting policy regarding the measurement of Investment Property from cost model to fair value model according to IAS 40 "Investment property".

The Bank deems the fair value model to be currently more appropriate for measuring Bank's investment property portfolio, which was significantly expanded following Grivalia's merger, also considering the positive real-estate market prospects. As such the adoption of fair value model provides more relevant and reliable information since it better reflects the current value of Bank's investment property.

In accordance with IAS 8 "Accounting policies, changes in accounting estimates and errors", the above change in the Bank's accounting policy on Investment Property was applied retrospectively. The tables below show the adjustments recognized for each individual line item as at 1 January 2018, 31 December 2018 and 31 December 2019. Line items that were not affected by the changes have not been included.

	31 December 2019			31 December 2018			1 January 2018		
Balance Sheet	**IP under cost model**	FV model adjustment	**As presented**	As published	Restatement	Restated	As published	Restatement	Restated
	€ million	€ million	**€ million**	€ million	€ million	€ million	€ million	€ million	€ million
ASSETS									
Investment property	**664**	57	**721**	32	7	39	22	7	29
Deferred tax assets	**4,771**	(17)	**4,754**	4,903	(2)	4,901	4,846	(2)	4,844
Total assets	**54,806**	**40**	**54,846**	50,275	5	50,280	51,448	5	51,453
EQUITY									
Reserves and retained earnings	**(3,094)**	40	**(3,054)**	(4,376)	5	(4,371)	(3,263)	5	(3,258)
Total equity	**5,817**	**40**	**5,857**	4,378	5	4,383	6,442	5	6,447
Total equity and liabilities	**54,806**	**40**	**54,846**	50,275	5	50,280	51,448	5	51,453

Income Statement	31 December 2019 IP under cost model € million	FV model adjustment € million	As presented € million	31 December 2018 As published € million	Restatement € million	Restated € million
Other income/(expenses)	**(44)**	45	**1**	(4)	(3)	(7)
Operating income	**1,329**	**45**	**1,374**	1,464	(3)	1,461
Operating expenses	**(659)**	5	**(654)**	(665)	0	(665)
Profit from operations before impairments, provisions and restructuring costs	**670**	**50**	**720**	799	(3)	796
Other impairment losses and provisions	**(41)**	**-**	**(41)**	(79)	3	(76)
Profit before tax	**(31)**	**50**	**19**	56	0	56
Income tax	**27**	(15)	**12**	(23)	(0)	(23)
Net profit	**(4)**	**35**	**31**	33	0	33

2.3.3 IFRS 9 'Financial Instruments' – Impact of adoption

The Bank adopted IFRS 9 in the first quarter of 2018, whereas the Standard's requirements were applied retrospectively by adjusting the Bank's balance sheet on the date of transition on 1 January 2018. The effect on the carrying amounts of financial assets and liabilities at the date of transition to IFRS 9 was recognized as an adjustment to opening reserves and retained earnings as further discussed below.

The impact of transitioning to IFRS 9 amounted to € 982 million, which is recognised as an opening balance adjustment at 1 January 2018 of the Bank's total shareholders' equity. The above impact, as depicted in the table below, is mainly attributed to the impact on the Greek lending portfolio, which amounts to € 918 million.

Impact attributed to :	**IFRS 9 impact € million**
Impairment	
- Loans and advances to customers	(918)
- Other financial assets	(62)
Total impairment	(980)
Classification & Measurement	(2)
Hedging	-
Total IFRS 9 impact	**(982)**

The Bank, based on the Management's relevant assessment at 1 January 2018, did not recognize a deferred tax asset (DTA) of € 285 million approximately arising from the IFRS 9 transition impact. Up to 31 December 2019, following the reassessment of the recoverability of deferred tax assets, the Bank has recognized the above deferred tax asset, of which € 260 million in 2019, affecting the income statement accordingly (note 14).

The table below presents the impact of transition to IFRS 9 to Fair value reserve and Retained earnings:

	IFRS 9 impact € million
Special reserves	
Closing balance under IAS 39	**7,755**
of which AFS reserve	*206*
Remeasurement under IFRS 9 measurement categories	**5**
Remeasurement under IFRS 9 ECL impairment for FVOCI portfolio	**12**
Deferred tax	**(4)**
Opening balance under IFRS 9	**7,768**
Retained earnings	
Closing balance under IAS 39	**(11,018)**
Remeasurement under IFRS 9 measurement categories	**(7)**
Remeasurement under IFRS 9 ECL impairment including FVOCI portfolio	**(992)**
Deferred tax	**4**
Opening balance under IFRS 9	**(12,013)**

(ii) Regulatory capital

The Bank's capital impact from the initial application of IFRS 9 as shown in the table below:

Capital impact from the initial application of IFRS 9	As at		
	31 December 2017 IAS 39 € million	1 January 2018 IFRS 9 full impact € million	1 January 2018 IFRS 9 transitional arrangements € million
Common equity Tier 1 Capital	6,173	5,189	6,049
Risk weighted assets	32,689	32,293	32,445
	%	%	%
Common equity Tier 1 (CET 1) Ratio	18.9	16.1	18.6

The Bank's capital impact on the fully loaded CET1 ratio as at 1 January 2018, based on the full implementation of the Basel III rules in 2024 is shown in the table below:

Fully loaded CET 1 ratio	As at		
	31 December 2017 IAS 39 € million	1 January 2018 IFRS 9 full impact € million	IFRS 9 impact € million
Common equity Tier 1 Capital	4,934	3,950	(984)
Risk weighted assets	32,441	32,045	(396)
	%	%	%
Common equity Tier 1 (CET 1) Ratio	15.2	12.3	(2.9)

The Bank has elected to apply the phase-in approach as per EU legislation (Regulation EU 2017/2395) for mitigating the impact of IFRS 9 transition on the regulatory capital. The transition period is for five years, with the proportion of the impact to be included being 5% in 2018 and 15%, 30%, 50% and 75% in the subsequent four years (note 4). The full impact is expected as of 1 January 2023.

3. Critical accounting estimates and judgments in applying accounting policies

In the process of applying the Bank's accounting policies, the Bank's 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 Bank makes judgments, estimates and assumptions in applying its accounting policies are set out below:

3.1 Impairment losses on loans and advances to customers

ECL measurement

The ECL measurement requires management to apply significant 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 Bank's ECL calculations are outputs of complex models with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies. Elements of the ECL models that are considered 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 Bank 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. More stringent criteria could significantly increase the number of instruments migrating to stage 2.

For retail lending exposures the primary criterion is the change in the residual cumulative lifetime 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 2019 and 31 December 2018, the range of lifetime PD thresholds based on the above segmentation, that triggers 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%

For wholesale portfolios, 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 Bank segments the wholesale portfolios based on asset class, loan type and credit rating at origination.

As at 31 December 2019 and 31 December 2018, the credit rating deterioration thresholds as per applicable borrower internal rating scale, that trigger allocation to stage 2 per rating bands for Greece's wholesale portfolio are set out in the tables below:

Wholesale internal rating bands	SICR threshold range
1-2	Two to Three notches
3-4	Two notches or more
5-8	One notch or more

Determination of scenarios, scenario weights and macroeconomic factors

To achieve the objective of measuring ECL, the Bank 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 2019 and 31 December 2018, the probability weights for the above mentioned scenarios applied by the Bank in the ECL measurement calculations are 50% for the baseline scenario and 25% for the adverse and optimistic scenarios.

The Bank ensures that impairment estimates and macroeconomic forecasts applicable for business and regulatory purposes are fully consistent. Accordingly, the baseline scenario applied in the ECL calculation coincides with the one used for ICAAP, business planning and internal stress testing purposes. In addition, all experience gained from the stress tests imposed by the regulator, have 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 Bank 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. Regarding the key macroeconomic indicators used in the ECL measurement of Greek lending portfolios for the year ended 31 December 2019 and 31 December 2018, the arithmetic averages of the scenarios' probability-weighted annual forecasts for the next four year period following the reporting date, are set in the following table:

Key macroeconomic indicator	As at 31 December 2019 Average (2020-2023) annual forecast	As at 31 December 2018 Average (2019-2022) annual forecast
Gross Domestic Product growth	2.47%	1.74%
Unemployment rate	14.70%	17.72%
Residential property prices' index	3.96%	1.70%
Commercial property prices' index	4.17%	2.20%

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 Bank 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 Bank 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. EAD, PDs, LGDs, CCFs, etc. incorporating management's view of the future. The Bank 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 explanatory variables, such as GDP, unemployment etc. which are used as independent variables for optimum predictive capability. The 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 Bank 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 Bank 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. Internal counterparty rating changes, new or revised models and data may significantly affect ECL. The models are governed by the Bank's validation framework, which aim to ensure independent verification, and are approved by the Board Risk Committee (BRC).

Sensitivity analysis on lending portfolios

The tables below depicts, the estimated effect in the Bank's ECL measurement (including off-balance sheet items) upon potential reasonable combined changes of forecasts in key macroeconomic indicators over the next 5 years (2020-2024 and 2019-2023, respectively):

As at 31 December 2019			
Sensitivity scenario			
Key macroeconomic indicators	**Combined change %**		
	Positive change	**Adverse change**	
GDP growth	+30%	-30%	change of annual forecasts
Unemployment Rate	-6.5%	+6.5%	change of annual forecasts
Property indices (RRE/CRE)	+3%	-3%	change of index adjusted real estate collateral market values

As at 31 December 2019				
Impact				
Lending Portfolio	**in € million**		**% of allowance**	
	Positive change	**Adverse change**	**Positive change**	**Adverse change**
Wholesale lending	-27	26	-1.14	+1.11
Retail lending	-57	65	-1.38	+1.58
Total Bank	**-84**	**91**	**-1.29**	**+1.41**

As at 31 December 2018			
Sensitivity scenario			
Key macroeconomic indicators	Combined change %		
	Positive change	Adverse change	
GDP growth	+30%	-30%	change of annual forecasts
Unemployment Rate	-6.5%	+6.5%	change of annual forecasts
Property indices (RRE/CRE)	+2%	-2%	change of index adjusted real estate collateral market values

As at 31 December 2018				
Impact				
Lending Portfolio	in € million		% of allowance	
	Positive change	Adverse change	Positive change	Adverse change
Wholesale lending	-40	50	-1.27	+1.59
Retail lending	-105	123	-1.93	+2.26
Total Bank	-145	173	-1.69	+2.01

It is noted that 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 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 Bank 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 Bank's Risk Management function monitors 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 Bank 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.

Valuation models are used mainly to value over-the-counter derivatives and securities measured at fair value.

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 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 Bank's financial assets and liabilities is provided in note 5.3.

3.3 Classification of financial instruments

The Bank 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 Bank'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 Bank and debt securities. However, further disaggregation may be performed by business strategy/ region, etc.

In assessing the business model for financial instruments, the Bank 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 Bank performs the SPPI assessment of lending exposures including securitized notes issued by special purpose entities established by the Bank 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 Bank 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. Furthermore, in order to assess whether any variability in the cash flows is introduced by the modified time value of money element, the Bank performs a quantitative assessment (as described in note 2). Moreover, the Bank evaluates certain cases on whether the existence of performance-related terms exposes the Bank to asset risk rather to the borrower's credit risk.

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

3.4 Income tax

The Bank is subject to income tax and estimates are required in determining the liability for income tax. The Bank 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 14.

In addition, the Bank 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 Bank's future financial performance 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 Bank has considered all available evidence, including management's projections of future taxable income and the tax legislation.

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 Bank 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.

As at 31 December 2019, the Bank revisited its estimates regarding the level of future taxable profits against which the unused tax losses and the deductible temporary differences can be utilized and evaluated accordingly the recoverability of the recognized deferred tax assets based on a) its three- year Business Plan, which was approved by the Board of Directors in March 2019 and has been submitted to the Hellenic Financial Stability Fund (HFSF) and to the Single Supervisory Mechanism (SSM), providing outlook of its profitability and capital position for the period up to the end of 2021 and b) the update of this Plan for the period till the end of 2022 that was submitted to the Board of Directors and the Hellenic Financial Stability Fund (HFSF) in December 2019. The implementation of the abovementioned Business Plan and its update largely depend on the risks and uncertainties that stem from the macroeconomic environment in Greece.

Further information in respect of the recognized deferred tax assets and the Bank's assessment for their recoverability is provided in note 14.

3.5 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 changes in these assumptions will impact the carrying amount of pension obligations.

The Bank 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. The currency and term to maturity of the bonds used are consistent with the currency and estimated term to maturity of the retirement benefit obligations. The salary rate increase assumption is based on future inflation estimates reflecting also the Bank's reward structure and expected market conditions.

Other assumptions for pension obligations, such as the inflation rate, are based in part on current market conditions.

For information in respect of the sensitivity analysis of the Bank'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.

3.6 Investment properties

Investment property is carried at fair value, as determined by external, independent, certified valuators on an annual basis.

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, future vacancy rates and periods, discount rates or rates of return, the 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 Bank's investment properties is included in note 27.

3.7 Provisions and contingent liabilities

The Bank 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 Bank 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 Bank'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 Bank's provisions and contingent liabilities is provided in note 35 and note 42.

3.8 Leases

The Bank, 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 Bank 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 Bank 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 Bank 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 Bank 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 or when they need to be adjusted to reflect the terms and conditions of the lease. The Bank 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, the IBR is derived from the estimated covered bonds yield curve, which is constructed based on observable Greek Government Bond yields.

3.9 Other significant accounting estimates and judgments

Information in respect of other estimates and judgments that are made by the Bank is provided in notes 23, 28 and 30.

4. Capital Management

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

	2019 € million	2018 [(1)] € million
Total equity	**5,857**	4,378
Add: Adjustment due to IFRS 9 transitional arrangements	**714**	798
Less: Preferred securities	**(2)**	(42)
Less: Goodwill	**(160)**	-
Less: Other regulatory adjustments	**(498)**	(566)
Common Equity Tier 1 Capital	**5,911**	4,568
Add: Preferred securities subject to phase-out	**-**	17
Total Tier 1 Capital	**5,911**	4,585
Tier 2 capital-subordinated debt	**950**	950
Add: Other regulatory adjustments	**89**	-
Total Regulatory Capital	**6,950**	5,535
Risk Weighted Assets	**35,806**	34,436
Ratios:	%	%
Common Equity Tier 1	**16.5**	13.3
Tier 1	**16.5**	13.3
Total Capital Adequacy Ratio	**19.4**	16.1

[(1)] The capital adequacy ratios for the year ended 31 December 2018 have not been adjusted following the change in accounting policy (note 2.3.2).

Note: The Bank's CET1 as at 31 December 2019, based on the full implementation of the Basel III rules in 2024 (fully loaded CET1), would be 14.5% (2018: 10.7%).

The Bank has sought to maintain an actively managed capital base to cover risks inherent in the business. The adequacy of the Bank's capital is monitored using, among other measures, the rules and ratios established by the Basel Committee on Banking Supervision (BIS rules/ratios) as adopted by the European Central Bank and the Bank of Greece in supervising the Bank. The capital adequacy framework, as in force, was 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). Directive 2013/36/EU was transposed into Greek legislation by Law 4261/2014. Supplementary to that, in the context of Internal Capital Adequacy Assessment Process (ICAAP), the Bank considers a broader range of risk types and the Bank's risk management capabilities. ICAAP aims ultimately to ensure that the Bank 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 2018 SREP decision, starting from 1 March 2019, the Bank is required to meet on an individual basis a Common Equity Tier 1 ratio of at least 10.25% and a Total Capital Adequacy Ratio of at least 13.75% (Overall Capital Requirements including the Capital Conservation Buffer and the Other Systemically Important Institutions Buffer), plus the applicable Countercyclical Capital Buffer (0.05% for the last quarter of 2019 mainly stemming from the exposures in Bulgaria and Ireland) analyzed as follows:

	31 December 2019	
	CET1 Capital Requirements	Total Capital Requirements
Minimum regulatory requirement	**4.5%**	**8.0%**
Pillar 2 Requirement (P2R)	3.0%	3.0%
Total SREP Capital Requirement (TSCR)	**7.5%**	**11.0%**
Combined Buffer Requirement (CBR)		
Capital conservation buffer (CCoB)	2.5%	2.5%
Countercyclical capital buffer (CCyB)	0.05%	0.05%
Other systemic institutions buffer (O-SII)	0.25%	0.25%
Overall Capital Requirement (OCR)	**10.30%**	**13.80%**

Pillar 2 additional own fund requirement of 3% for 2019, must be held in the form of CET1 capital and amounts to € 1,074 million for the Bank on an individual basis.

According to the 2019 SREP decision, for 2020, the Bank is required to meet on an individual basis a Common Equity Tier 1 ratio of at least 10.5% and a Total Capital Adequacy Ratio of at least 14% (Overall Capital Requirements including Capital Conservation Buffer of 2.5% and Other Systemically Important Institution Buffer of 0.5%) plus any applicable Countercyclical Capital Buffer.

In response to the coronavirus outbreak, on 12 March 2020, the ECB announced a number of measures to ensure that its directly supervised banks can continue to fulfil their role in funding the real economy (note 2). Specifically, banks will be allowed, among others, to operate temporarily below the level of capital defined by the Pillar 2 Guidance and the capital conservation buffer (CCB). Banks will also be allowed to partially use capital instruments that do not qualify as CET1 capital, for example Additional Tier 1 or Tier 2 instruments, to meet the Pillar 2 Requirements.

2020 EU – wide stress test postponed to 2021

An EU - wide stress test was announced by the European Banking Authority (EBA), launched in January 2020, to assess the resilience of EU banks to an adverse economic shock. This was initiated and coordinated by the EBA, in close cooperation with the European Systemic Board (ESRB), the competent Authorities (including the Single Supervisory Mechanism – SSM) and the European Central Bank (ECB).

The 2020 EU-wide stress test consisted of two stress-testing exercises – the EBA EU-wide stress test and the ECB SREP stress test – the results of which would be factored into its overall assessment within the 2020 Supervisory Review and Evaluation Process (SREP).

The scope of the 2020 ECB SREP stress test would complement the 2020 EBA EU-wide stress test in order to address those ECB supervised entities which are not included in the 2020 EBA EU-wide stress test. Eurobank would participate in the ECB SREP stress test of 2020.

On 12 March 2020, the EBA decided to postpone the EU-wide stress test exercise to 2021 to mitigate the impact of coronavirus on the EU banking sector and thus allow banks to focus on and ensure continuity of their core operations, including support for their customers. For 2020, the EBA announced that it will carry out an additional EU-wide transparency exercise in order to provide updated information on banks' exposures and asset quality to market participants. In the light of the operational pressure on banks, the ECB stated that it supports the above decision by the EBA and will extend the postponement to all banks subject to the 2020 stress test.

5. Financial risk management and fair value

5.1 Use of financial instruments

By their nature the Bank's activities are principally related to the use of financial instruments including derivatives. The Bank 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 Bank 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 Bank 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 Bank 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 Bank is exposed to a number of financial risks, such as credit risk, market risk (including currency and interest rate risk), liquidity and operational risks. The Bank'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), 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 credit, market, liquidity and operational risk, both in Greece and in each country of its international operations. The risk management policies implemented by the Bank and its subsidiaries are reviewed annually.

The Group Risk and Capital Strategy, which has been formally documented, outlines the Group's overall direction regarding risk and capital management issues, the risk management mission and objectives, risk definitions, risk management principles, risk appetite framework, 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.

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.

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 an adequate and robust risk appetite.

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 an appropriate risk management framework with appropriate methodologies, modelling tools, data sources and sufficient and competent staff to identify, assess, monitor and mitigate risks.

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 operates as an advisory committee to the BRC.

The main responsibility of the MRC is to oversee the risk management framework of the Group. As part of its responsibility, the MRC facilitates reporting to the BRC on the range of risk-related topics under its purview. The MRC ensures that material risks are identified and promptly escalated to the BRC and that the necessary policies and procedures are in place to prudently manage risks and to comply with regulatory requirements. Additionally, the MRC determines appropriate management actions which are discussed and presented to the Executive Board ('EXBO') for information and submitted to BRC for approval.

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 monitoring, measurement and management of credit, market, operational and liquidity risks of the Group. It comprises of the Group Credit General Division, 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, the Group Model Validation and Governance Sector, the Group Risk Management Strategy Planning and Operations Unit and the Supervisory Relations and Resolution Planning Division (dual reporting also to the Group Chief Financial Officer).

Non-Performing Exposures (NPEs) management

Following the Bank of Greece (BoG) Executive Committee's Act No.42/30.05.2014 and its amendments, that detail the supervisory directives for the administration of exposures in arrears and non-performing loans, the Bank has proceeded with a number of initiatives to adopt the regulatory requirements and empower the management of troubled assets. In particular, the Bank transformed its troubled assets operating model into a vertical organizational structure through the establishment of the Troubled Assets Committee (TAC) and Troubled Assets Group General Division (TAG).

Troubled Assets Committee (TAC)

The Troubled Assets Committee (TAC), with direct reporting line to the BRC, has been established in order to provide strategic guidance and monitoring of the troubled assets of Eurobank ensuring independence from business and compliance with the requirements of Decision 42/2014. In particular, the main competencies that have been delegated to TAC relate to the monitoring of loans in arrears and the management of non-performing loans, the determination and implementation of the troubled assets' management strategy, as well as approving and assessing the sustainability of the forbearance and closure procedure measures.

Troubled Assets Group General Division (TAG)

The TAG, which has been established as an independent body, is headed by the Deputy Chief Executive Officer, and Executive member of the BoD and is responsible for the management of the Group's troubled assets portfolio, for the whole process, from the pre-delinquency status in case of high risk exposures up to legal workout. It ensures close monitoring, tight control and course adjustment taking into account the continuous developments in the macro environment, the regulatory and legal requirements, the international best practices and new or evolved internal requirements.

TAG comprises the Retail Remedial General Division, the Corporate Remedial General Division, the Collaterals Recovery Sector, the TAG Business Planning Sector, the TAG Risk Management and Business Policies Sector, the TAG Operational Risk Management Sector and the Business Improvement Program Management Sector. TAG structure is completely segregated from the Bank's business units both in terms of account management, as well as credit approval process, which ensures transparency, flexibility, better prioritization and management accountability and shifts the management from bad debt minimization to bad debt value management, in line with the Group's risk appetite.

The TAG cooperates with Group Risk Management to reach a mutual understanding of the implemented practices and to develop appropriate methodologies for the assessment of risks that may be inherent in any type of forbearance and, generally, troubled assets strategy deployment for all portfolios managed. The TAG's recommendations and reports to the Board of Directors and its Committees are also submitted to the GCRO who expresses an opinion.

The key governing principles of the TAG are to:

- Preserve the clear demarcation line between business units and troubled assets management;
- Ensure direct top management involvement in troubled assets management and close monitoring of the respective portfolio;
- Deploy a sound credit workout strategy through innovative propositions that will lead to viable solutions, ensuring a consistent approach for managing troubled assets across portfolios;
- Engineer improvements in monitoring and offering targeted solutions by segmenting delinquent borrowers and tailoring the remedial and workout approach to specific segment;
- Prevent non performing loans formation through early intervention and clear definition of primary financial objectives of troubled assets;
- Monitor the loan delinquency statistics, as well as define targeted risk mitigating actions to ensure portfolio risk reduction;
- Target maximization of borrowers who return to current status through modifications or collections;
- Monitor losses related to troubled assets; and
- Define criteria to assess the sustainability of proposed forbearance or resolution and closure measures and design decision trees.

Following the Corporate Transformation Hive-down, the Pillar and Cairo securitizations and the FPS agreement (notes 30, 34 and 43), the Bank will assign the management of its remaining NPE portfolio to FPS, through a 10-year agreement.

Eurobank will retain the business ownership and responsibility for the performance of the NPEs and will manage the relationship with FPS through a structured governance and a solid control framework.

In this context, a dedicated Eurobank team will devise the NPE reduction plan, actively set the strategic principles and KPIs (Key Performance Indicators) framework under which FPS will manage the portfolio, closely monitor the execution of the approved strategies and service level agreements and ensure compliance with regulatory requirements.

Operational targets for Non-Performing Exposures (NPEs)

In March 2019, Eurobank and the other Greek systemic banks responded to the new regulatory framework and SSM requirements for the NPEs management and submitted their new NPE Management Strategy for 2019-21, at both bank and, for the first time, group level. Specifically for Eurobank, the new submission has taken into account the NPE reduction acceleration plan that was announced in the context of its Transformation plan.

The Greek government in order to support the reduction of non-performing loans of banks, has designed an asset protection scheme ('APS') to assist them in securitizing and moving non-performing loans off their balance sheets. In October 2019, the European Commission approved the Greek APS, stating that state guarantees are to be remunerated at market terms according to the risk taken. Following the enactment of the Law 4649/2019 related to the APS and the agreement with an international investor on the projects Cairo (note 34) and FPS sale (note 30), Eurobank aims to achieve the targeted Group's NPE ratio of ca. 16% in the first quarter of 2020 and a single digit ratio by 2021.

As at 31 December 2019, the Group's NPEs' stock amounted to € 13 billion (Bank: € 12 billion), reduced by € 3.7 billion (Bank: € 3.2 billion) compared to 31 December 2018.

The Bank has fully embedded the NPEs strategy into its management processes and operational plan. The supervisory authorities review the Group's progress to meet its operational targets on a quarterly basis and request additional corrective measures if deemed necessary.

On 12 March 2020, the EBA announced actions to mitigate the impact of coronavirus on the EU banking sector stating among others that there is flexibility in the implementation of the EBA Guidelines on management of non-performing and forborne exposures. Additionally, the EBA called for a close dialogue between supervisors and banks, also on their non-performing exposure strategies, on a case by case basis (note 2).

Legal Framework

A new protection scheme on primary residence was voted by the Greek Parliament in March 2019 (Law 4605/2019), aimed to bolster the banks' efforts to reduce NPEs through a more effective mechanism to work out troubled loans, a restriction of strategic defaulters and, ultimately, an improvement in payment discipline. The scheme expires in April 2020, after which the Government has announced that it will duly devise a comprehensive Individual Insolvency framework.

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.

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.

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 Bank 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 Bank, including from credit enhancements provided, such as financial guarantees and letters of credit. The Bank 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 Bank is exposed to, it is very closely managed and monitored by centralized dedicated 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, in order to manage the corporate credit risk. Main Committees of the Bank are considered to be the following:

- Credit Committees (Central and Local) authorized to approve new financing, renewals or amendments in the existing credit limits, in accordance with their approval authority level, 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 credit underwriting to wholesale borrowers for the Group's international Bank subsidiaries, authorized to approve new limits, renewals or amendments to existing limits, in accordance with their approval authority level, depending on total customer exposure and customer 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)

The main responsibilities of the GCGD of the Risk Management General Division are:

- Review and evaluation of credit requests of:
  (a) Domestic large and medium scale corporate entities of every risk category;
  (b) Specialized units, such as Shipping, Structured Finance; and
  (c) Retail sector's customers (small business and individual banking) above a predetermined threshold.
- Issuance of an independent risk opinion for each credit request, which includes:
  (a) Assessment of the customer credit profile based on the qualitative and quantitative risk factors identified (market, operations, structural and financial);
  (b) A focused sector analysis; and
  (c) Recommendations to structure a bankable, well-secured and well-controlled transaction.
- Review and confirmation of the ratings of each separate borrower, to reflect the risks acknowledged;
- Participation with voting rights in all credit committees, as per the credit approval procedures (except for Special Handling Committee I- no voting rights);
- Active participation in all external/regulatory audits of the Bank;
- Preparation of specialized reports to Management on a regular basis, with regards to Top 25 biggest Borrower groups and statistics on the new approved financings;
- Safeguard compliance of the Lending Units with specific policies (such as SPPI/ derecognition process, assessment of individual customers for impairment review purposes, environmental and social policy); and
- Provision of specialized knowledge, expertise and support to other divisions of the Bank, in relation to operational and credit procedures, security policies, new lending products and restructuring schemes.

The GCGD through its specialized International Credit Sector (ICS) is also responsible to actively participate in the design, implementation and review of the credit underwriting function for the wholesale portfolio of the International Subsidiaries. Moreover, ICS advises and supports Risk Divisions of the International Subsidiaries.

In this context, ICS is responsible for the implementation, among others, of the below activities:

- Participation with voting right in all International Committees (Regional and Special Handling);
- Participation in the sessions of Special Handling Monitoring Committees 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 and implementation of Group Risk's credit related special projects such as acquisition and /or sale of wholesale portfolio ; and
- In cooperation with Group Credit Control Sector (GCCS), it conducts field reviews regarding the quality of the loan portfolios and specific loan segments.

The Group's international subsidiaries in Bulgaria, Serbia, Cyprus and Luxembourg apply the same credit risk management structure and control procedures as the Bank and report directly to the GCRO. Risk management policies and processes are approved and monitored by the credit risk divisions of the Bank ensuring that the Group guidelines are in place and credit risk strategy is uniformly applied across the Group.

Furthermore, information on credit risk monitoring of troubled assets is also provided in the section of Non-Performing Exposures (NPEs) management.

Retail Banking approval process

The approval process for loans to small businesses (turnover up to € 5 million) is centralized following specific guidelines for eligible collaterals as well as the 'four-eyes' principle. The assessment is based on an analysis of the borrower's financial position and statistical scorecards.

The credit approval process for Individual Banking (consumer and mortgage loans) is also centralized and differentiated between performing and non-performing businesses. It is based on specialized credit scoring models and credit criteria taking into account the payment behavior, personal wealth and financial position of the borrowers, including the existence of real estate property, the type and quality of securities and other factors as well. The ongoing monitoring of the portfolio quality and of any other deviations that may arise, leads to an immediate adjustment of the credit policy and procedures, when deemed necessary.

(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;
- develop, supervise and support the Transactional Rating (TR) application used to measure the overall risk of wholesale credit relationships, taking into account both the creditworthiness of the borrower and required collaterals;
- 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;
- ensure that EBA classifications are made 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 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; and
- provide guidance and monitor the process of designing and reviewing credit policies before approved by Management.

Furthermore, in the context of reviewing performance of Group's wholesale portfolio, GCCS through its specialized Early Warning Unit (EWU), is also responsible to assess the wholesale portfolio and detect distress signals for specific borrowers. EWU has developed a multi-criterion delinquency application that is operating in parallel to the Bank's rating systems and targets to identify those borrowers whose financial performance may deteriorate significantly in the future and consequently the Bank should take actions for close monitoring and effective management.

Group Credit Risk Capital Adequacy Control Sector

The Group Credit Risk Capital Adequacy Control Sector implements and maintains the Internal Ratings Based (IRB) approach in accordance with the Basel framework and the Capital Requirements Directive (CRD) and maintains the credit risk assessment models for the loans portfolio of the Group. 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);
- measure and monitor the risk parameters (PD, LGD, EAD) for the purposes of capital adequacy calculations, as well as, the estimation of risk related parameters (such as forecast 12-m PD, forecast lifetime PD) for impairment calculation purposes
- reviewing the grouping of lending exposures and ensuring their homogeneity under IFRS , re-assessing and re-developing the significant increase in credit risk (SICR) threshold;
- prepare monthly capital adequacy calculations (Pillar 1) and relevant management, as well as, regulatory reports (COREPs, SREP) on a quarterly basis;
- 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;
- monitoring of the regulatory framework in relation to the IRB framework performing impact assessment by initiating and managing relevant projects;
- manage the models development, implementation, monitoring of the IRB models of Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) for evaluating credit risk;
- prepare the credit risk analyses for Internal Capital Adequacy Assessment (ICAAP)/ Pillar 2 purposes;
- implement the IRB roll-out plan of the Group;
- prepare the Basel Pillar 3 disclosures for credit risk;
- monitor the regulatory framework in relation to the above, to perform impact assessment, to initiate and manage relevant projects;
- 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), updates on regulatory changes and impact assessment and asset quality reviews;
- 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;
- 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;
- 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 Troubled Asset Group 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 regular reporting of the Group's exposure to counterparty risk, which is the risk of loss due to the customer's failure to meet its contractual obligations in the context of treasury activities, such as 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. 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, asset backed securities etc.). In addition, the Group sets limits that are applicable for investment on tradable instruments. For non- tradable instruments, the applicable limits are determined by the appropriate Credit Committees.

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 Bank'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.

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 along with regular reporting that includes the exposure to the Hellenic Republic, which is also provided to regulators (ECB/SSM).

(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 Bank 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 Bank on behalf of a customer authorizing a third party to draw drafts on the Bank 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 Bank 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 Bank 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 Bank 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 Bank 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 specific factors. Specifically, aiming to facilitate its understanding of the Expected Loss (EL) when approving a credit limit, the Bank has developed a relevant application, whereby a borrower's credit rating along with proposed credit limit and provided collaterals/guarantees are considered for the calculation of the TR.
- 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 Viability and the Impairment scorecards.

MRA, ICR, Slotting, Viability and Impairment scorecards functions are supported by the Risk Analyst ("RA") 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 entity'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 within its industry 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 Bank performs an overall assessment of wholesale customers, based both on their rating (MRA or ICR) and the collaterals and guarantees referred to the respective approved credit relationship, using a 14-grade rating scale. Credit exposures are subject to detailed reviews by the appropriate Credit Committee based on the respective transactional rating (TR). Low risk wholesale customers are reviewed at least once a year, whereas higher risk customers are reviewed either on a semi-annual or a quarterly basis.

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).

Regarding the assessment of a borrower's viability and the corresponding classification into Viable-Non-Viable, it is performed by the responsible relationship manager at least annually, as a part of a credit review process. The assessment is made through the RA platform, as part of the credit limit application, renewal or amendment process. The criteria considered for the classification of a borrower as “Viable” or “Non-Viable” include the level of turnover, the values of specific financial ratios, the future cash flow generation capacity, as well as a number of qualitative characteristics.

In addition, the Bank has developed an Impairment Rating Scorecard in accordance to which borrowers should be assessed and classified as impaired or not. The Impairment Rating Scorecard is embedded in the RA platform, in order to depict and archive in the most effective way, the information which is taken into consideration during credit limit reviews, especially in respect to the assessment of impairment triggers.

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 Bank 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 Bank'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 Bank

The Bank 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 Bank's credit policy.

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

Valuation principles of collaterals

In defining the maximum collateral ratio for loans, the Bank 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 Bank 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 developed in collaboration with other major banks in Greece. This methodology, has been approved by the Bank of Greece, and its use enables a dynamic monitoring of residential properties' values and market trends, on an annual basis. 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 based on internationally accepted methodology and 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, Bank'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 Bank 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 Bank are largely issued by the government. The National Fund for Entrepreneurship and Development (ETEAN SA) 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 Bank 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 Bank 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 Bank 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

	2019 € million		2018 € million	
Credit risk exposures relating to on-balance sheet assets are as follows:				
Due from credit institutions	2,787		2,005	
Less: Impairment allowance	(1)	**2,786**	(2)	2,003
Debt securities held for trading		**50**		18
Derivative financial instruments		**2,278**		1,875
Loans and advances to customers at amortised cost:				
- Wholesale lending [(1)]	14,978		13,668	
- Mortgage lending	12,656		14,895	
- Consumer lending	2,586		2,862	
- Small business lending	5,894		5,850	
Less: Impairment allowance	(6,466)	**29,648**	(7,967)	29,308
Loans and advances to customers measured at FVTPL		**50**		46
Investment securities:				
- Debt securities measured at amortised cost	1,044		971	
Less: Impairment allowance	(2)	**1,042**	(30)	941
Debt securities measured at FVOCI		**5,443**		5,578
Investment securities at FVTPL		**95**		78
Other financial assets [(2)]	63		35	
Less: Impairment allowance	(20)	**43**	(13)	22
Credit risk exposures relating to off-balance sheet items (note 42):				
- Loan commitments		**2,850**		2,438
- Financial guarantee contracts and other commitments		**2,000**		2,532
Total		**46,285**		44,839

[(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 Bank's maximum credit risk exposure as at 31 December 2019 and 31 December 2018 respectively, without taking account of any collateral held or other credit enhancements that do not qualify for offset in the Bank'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 Bank 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 € 2.1 billion (2018: € 2.2 billion) that are subject to ECL measurement.

5.2.1.2 Loans and advances to customers

The section below provides an overview of the Bank'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 Bank in order to comply with the revised IFRS 7 'Financial Instruments: Disclosures', following the adoption of IFRS 9 from 1 January 2018. In addition, the types of the Bank'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 'Lifetime ECL' is recognized and loans classified as 'Purchased or originated credit impaired' (POCI) which are always measured on the basis of 'lifetime ECL'.

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 Bank's accounting policy regarding impairment of financial assets is set out in note 2.2.13.

Regulatory definitions

'Default exposures', in line with the regulatory definition of default as adopted by the Bank, include material exposures that are past due more than 90 days, exposures that are assessed by the Bank as unlikely to pay as well as those that are assessed for impairment individually and carry an individual impairment allowance. As at 31 December 2019, the Bank's default exposures amounted to € 11,392 million (2018: € 14,290 million).

'Non-performing exposures' as currently monitored and reported by the Bank, in line with the guidelines set by the European Banking Authority (EBA Implementing Technical Standards), include material exposures that are in arrears for more than 90 days or assessed as unlikely to pay, impaired exposures under individual or collective impairment assessment, exposures categorized as defaulted for regulatory purposes, as well as forborne non performing exposures. As at 31 December 2019, the Bank's non-performing exposures included in loans and advances to customers at amortised cost amounted to € 11,970 million (2018: € 15,208 million). Correspondingly, 'Performing exposures' include exposures without arrears, those that are less than 90 days past due or are not assessed as unlikely to pay, non-impaired and non-defaulted exposures. As at 31 December 2019, the Bank's performing exposures included in loans and advances to customers at amortised cost amounted to € 24,144 million (2018: € 22,067 million).

'Unlikely to pay' category refers to exposures where a borrower's ability to repay his credit obligations in full without realization of collateral is assessed as unlikely, regardless the existence of any past due amounts or the number of days past due.

Quantitative information

The following tables present the total gross carrying and nominal amount, representing the maximum exposure to credit risk before the impairment allowance, of loans and advances including securitized notes issued by special purpose vehicles established by the Bank and credit related commitments respectively, that are classified as non-impaired (stage 1 and stage 2) and those classified as credit-impaired (stage 3). They also present 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.

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.

In addition, the value of collateral presented in the tables below is capped to the respective gross loan amount.

The following tables present information about the credit quality of the gross carrying amount of loans and advances to customers carried at amortised cost, the nominal exposure of credit related commitments and the respective impairment allowance as well as the carrying amount of loans and advances to customers carried at FVTPL:

	31 December 2019										
						Impairment allowance					
			Lifetime ECL credit-impaired					Lifetime ECL credit-impaired			
	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	**9,102**	**4,194**	**442**	**7,398**	**21,136**	**(56)**	**(305)**	**(244)**	**(3,524)**	**17,007**	***13,651***
- Mortgage	5,878	3,042	199	3,537	12,656	(11)	(173)	(100)	(1,356)	11,016	
Value of collateral	*5,221*	*2,457*	*112*	*2,281*							*10,071*
- Consumer	798	234	0	910	1,942	(13)	(32)	(0)	(776)	1,121	
Value of collateral	*0*	*1*	-	*120*							*121*
- Credit card	553	30	0	61	644	(15)	(4)	(0)	(55)	570	
Value of collateral	-	-	-	-							-
- Small business	1,873	888	243	2,890	5,894	(17)	(96)	(144)	(1,337)	4,300	
Value of collateral	*1,152*	*605*	*121*	*1,581*							*3,459*
Wholesale Lending	**9,528**	**1,273**	**2,991**	**1,139**	**14,931**	**(48)**	**(74)**	**(1,628)**	**(586)**	**12,595**	***6,742***
- Large corporate	7,152	656	1,583	67	9,458	(35)	(36)	(792)	(31)	8,564	
Value of collateral	*2,218*	*490*	*802*	*29*							*3,539*
- SMEs	1,318	617	1,408	1,072	4,415	(13)	(38)	(836)	(555)	2,973	
Value of collateral	*649*	*420*	*660*	*416*							*2,145*
-Securitized notes [1]	*1,058*	-	-	-	1,058	*(0)*	-	-	-	1,058	
Value of collateral	*1,058*	-	-	-							*1,058*
Public Sector	**44**	**3**	**-**	**-**	**47**	**(1)**	**(0)**	**-**	**-**	**46**	***2***
- Greece	44	3	-	-	47	(1)	(0)	-	-	46	
Value of collateral	*1*	*1*	-	-							*2*
Loans and advances to customers at FVTPL										**50**	***50***
Total	**18,674**	**5,470**	**3,433**	**8,537**	**36,114**	**(105)**	**(379)**	**(1,872)**	**(4,110)**	**29,698**	**20,445**
Total value of collateral	**10,299**	**3,974**	**1,695**	**4,427**							
Credit related commitments	**4,100**	**239**	**481**	**30**	**4,850**	**(28)**	**(4)**	**(250)**	**(7)**		
Loan commitments	2,777	69	4	-	2,850	(20)	(0)	(0)	-		
Financial guarantee contracts and other commitments	1,323	170	477	30	2,000	(8)	(4)	*(250)*	*(7)*		
Value of collateral	*274*	*33*	*16*	*5*							

	31 December 2018										
						Impairment allowance					
			Lifetime ECL credit-impaired					Lifetime ECL credit-impaired			
	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	8,409	4,813	469	9,916	23,607	(74)	(581)	(257)	(4,327)	18,368	*14,847*
- Mortgage	5,686	3,397	223	5,589	14,895	(30)	(279)	(129)	(2,016)	12,441	
Value of collateral	*4,966*	*2,647*	*126*	*3,710*							*11,449*
- Consumer	873	230	-	966	2,069	(28)	(85)	-	(747)	1,209	
Value of collateral	*0*	*1*	-	*128*							*129*
- Credit card	568	15	-	210	793	(5)	(6)	-	(172)	610	
Value of collateral	-	-	-	-							-
- Small business	1,282	1,171	246	3,151	5,850	(11)	(211)	(128)	(1,392)	4,108	
Value of collateral	*748*	*770*	*123*	*1,628*							*3,269*
Wholesale Lending	7,373	1,416	3,653	1,170	13,612	(49)	(97)	(2,065)	(516)	10,885	*5,586*
- Large corporate	6,274	902	2,166	64	9,406	(38)	(57)	(1,207)	(28)	8,076	
Value of collateral	*2,005*	*688*	*912*	*25*							*3,630*
- SMEs	1,099	514	1,487	1,106	4,206	(11)	(40)	(858)	(488)	2,809	
Value of collateral	*520*	*338*	*685*	*413*							*1,956*
Public Sector	56	-	-	0	56	(1)	-	-	(0)	55	*5*
- Greece	56	-	-	0	56	(1)	-	-	(0)	55	
Value of collateral	*5*	-	-	-							*5*
Loans and advances to customers at FVTPL										46	*42*
Total	15,838	6,229	4,122	11,086	37,275	(124)	(678)	(2,322)	(4,843)	29,354	20,480
Total value of collateral	8,244	4,444	1,846	5,904							
Credit related commitments	3,894	178	589	309	4,970	(12)	(4)	(271)	(18)		
Loan commitments	2,428	10	-	0	2,438	(7)	(0)	-	-		
Financial guarantee contracts and other commitments	1,466	168	589	309	2,532	(5)	(4)	(271)	(18)		
Value of collateral	*433*	*33*	*48*	*2*							

[1] *It refers to the notes of Pillar securitization (note 20).*

The Bank 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 2019				31 December 2018			
Internal credit rating	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Total gross carrying amount € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Total gross carrying amount € million
Retail Lending								
- Mortgage								
PD<2.5%	5,326	613	-	5,939	2,610	1	-	2,611
2.5%<=PD<4%	328	392	-	720	2,117	593	-	2,710
4%<=PD<10%	190	753	-	943	823	611	-	1,434
10%<=PD<16%	22	238	-	260	31	376	-	407
16%<=PD<99.99%	12	1,046	-	1,058	105	1,816	-	1,921
100%	-	-	3,736	3,736	-	-	5,812	5,812
- Consumer								
PD<2.5%	465	8	-	473	495	-	-	495
2.5%<=PD<4%	101	20	-	121	126	-	-	126
4%<=PD<10%	232	90	-	322	83	5	-	88
10%<=PD<16%	0	58	-	58	169	1	-	170
16%<=PD<99.99%	0	58	-	58	0	224	-	224
100%	-	-	910	910	-	-	966	966
- Credit card								
PD<2.5%	16	0	-	16	421	-	-	421
2.5%<=PD<4%	152	0	-	152	124	-	-	124
4%<=PD<10%	385	22	-	407	-	1	-	1
10%<=PD<16%	-	-	-	-	21	-	-	21
16%<=PD<99.99%	-	8	-	8	2	14	-	16
100%	-	-	61	61	-	-	210	210
- Small business								
PD<2.5%	161	3	-	164	218	2	-	220
2.5%<=PD<4%	942	20	-	962	937	-	-	937
4%<=PD<10%	627	185	-	812	37	7	-	44
10%<=PD<16%	143	191	-	334	45	9	-	54
16%<=PD<99.99%	0	489	-	489	45	1,153	-	1,198
100%	-	-	3,133	3133	-	-	3,397	3,397
Wholesale Lending								
- Large corporate								
Strong	4,793	11	-	4,804	3,821	14	-	3,835
Satisfactory	2,117	446	-	2,563	2,448	509	-	2,957
Watch list	242	199	-	441	5	379	-	384
Impaired (Defaulted)	-	-	1,650	1,650	-	-	2,230	2,230
- SMEs								
Strong	691	47	-	738	571	25	-	596
Satisfactory	556	173	-	729	516	150	-	666
Watch list	71	397	-	468	12	339	-	351
Impaired (Defaulted)	-	-	2,480	2,480	-	-	2,593	2,593
-Securitized notes								
Strong	1,058	-	-	1,058	-	-	-	-
Public Sector								
All countries								
Strong	1	-	-	1	6	-	-	6
Satisfactory	43	-	-	43	50	-	-	50
Watch list	-	3	-	3	-	-	-	-
Impaired (Defaulted)	-	-	-	-	-	-	0	0
Total	**18,674**	**5,470**	**11,970**	**36,114**	**15,838**	**6,229**	**15,208**	**37,275**

Internal credit rating	31 December 2019 12-month ECL-Stage 1 € million	31 December 2019 Lifetime ECL - Stage 2 € million	31 December 2019 Lifetime ECL credit-impaired € million	31 December 2019 Total nominal amount € million	31 December 2018 12-month ECL-Stage 1 € million	31 December 2018 Lifetime ECL-Stage 2 € million	31 December 2018 Lifetime ECL credit-impaired € million	31 December 2018 Total nominal amount € million
Credit Related Commitments								
Retail Lending								
Loan commitments								
PD<2.5%	70	-	-	70	1,339	0	-	1,339
2.5%<=PD<4%	519	0	-	519	922	-	-	922
4%<=PD<10%	1,334	62	-	1,396	3	1	-	4
10%<=PD<16%	165	1	-	166	21	1	-	22
16%<=PD<99.99%	-	6	-	6	1	8	-	9
100%	-	-	-	-	-	-	0	0
Financial guarantee contracts and other commitments								
PD<2.5%	1	-	-	1	21	-	-	21
2.5%<=PD<4%	88	-	-	88	93	-	-	93
4%<=PD<10%	39	-	-	39	-	-	-	-
10%<=PD<16%	-	-	-	-	-	-	-	-
16%<=PD<99.99%	-	-	-	-	-	-	-	-
100%	-	-	-	-	-	-	-	-
Wholesale Lending								
Loan commitments								
Strong	366	-	-	366	90	-	-	90
Satisfactory	321	-	-	321	44	-	-	44
Watch list	2	-	-	2	8	-	-	8
Impaired (Defaulted)	-	-	4	4	-	-	-	-
Financial guarantee contracts and other commitments								
Strong	786	34	-	820	1,019	52	-	1,071
Satisfactory	385	51	-	436	327	62	-	389
Watch list	24	85	-	109	6	54	-	60
Impaired (Defaulted)	-	-	507	507	-	-	*898*	898
Total	**4,100**	**239**	**511**	**4,850**	**3,894**	**178**	**898**	**4,970**

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:

Wholesale Lending	
Credit Quality classification categories	**Internal Credit Rating**
Strong	1-4
Satisfactory	5-6
Watch list	7-9
Impaired (Defaulted)	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 2019 to 31 December 2019 and 1 January 2018 to 31 December 2018:

	31 December 2019												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Total € million
Gross carrying amount at 1 January	**7,429**	**1,416**	**4,823**	**5,686**	**3,397**	**5,812**	**1,441**	**245**	**1,176**	**1,282**	**1,171**	**3,397**	**37,275**
Arising from acquisitions [(1)]	67	-	-	184	-	-	8	-	-	21	-	-	**280**
New loans and advances originated or purchased	2,255	-	-	139	-	-	191	-	-	206	-	-	**2,791**
Securitized notes	1,058	-	-	-	-	-	-	-	-	-	-	-	**1,058**
Transfers between stages													
-to 12-month ECL	*175*	*(173)*	*(2)*	*631*	*(623)*	*(8)*	*83*	*(80)*	*(3)*	*495*	*(492)*	*(3)*	**-**
-to lifetime ECL	*(387)*	*560*	*(173)*	*(216)*	*746*	*(530)*	*(128)*	*182*	*(54)*	*(48)*	*370*	*(322)*	**-**
-to lifetime ECL credit-impaired loans	*(96)*	*(70)*	*166*	*(107)*	*(354)*	*461*	*(34)*	*(52)*	*86*	*(41)*	*(135)*	*176*	**-**
Loans and advances derecognised/ reclassified as held for sale during the year	-	-	(77)	(0)	(90)	(1,896)	(6)	(1)	(0)	(5)	(1)	(0)	**(2,076)**
Amounts written-off [(2)]	-	-	(364)	-	-	(119)	-	-	(210)	-	-	(125)	**(818)**
Repayments	(960)	(452)	(259)	(606)	(140)	(74)	(245)	(37)	(51)	(184)	(52)	(46)	**(3,106)**
Foreign exchange differences and other movements	31	(5)	16	167	106	90	41	7	27	147	27	56	**710**
Gross Carrying amount at 31 December	**9,572**	**1,276**	**4,130**	**5,878**	**3,042**	**3,736**	**1,351**	**264**	**971**	**1,873**	**888**	**3,133**	**36,114**
Impairment allowance	(49)	(74)	(2,214)	(11)	(173)	(1,456)	(28)	(36)	(831)	(17)	(96)	(1,481)	**(6,466)**
Carrying amount at 31 December	**9,523**	**1,202**	**1,916**	**5,867**	**2,869**	**2,280**	**1,323**	**228**	**140**	**1,856**	**792**	**1,652**	**29,648**

	31 December 2018												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Total € million
Gross carrying amount at 1 January	6,419	2,106	5,441	5,743	3,405	6,151	1,476	297	2,439	1,248	1,064	4,008	39,797
New loans and advances originated or purchased	2,127	-	-	115	-	-	179	-	-	177	-	-	2,598
Transfers between stages													
-to 12-month ECL	*859*	*(839)*	*(20)*	*501*	*(487)*	*(14)*	*90*	*(87)*	*(3)*	*108*	*(102)*	*(6)*	-
-to lifetime ECL	*(217)*	*285*	*(68)*	*(164)*	*925*	*(761)*	*(50)*	*132*	*(82)*	*(58)*	*398*	*(340)*	-
-to lifetime ECL credit-impaired loans	*(16)*	*(192)*	*208*	*(69)*	*(408)*	*477*	*(44)*	*(71)*	*115*	*(26)*	*(171)*	*197*	-
Loans and advances derecognised/ reclassified as held for sale during the year	-	-	(144)	-	-	(0)	(11)	(2)	(994)	(6)	(1)	(0)	(1,158)
Amounts written-off [(2)]	-	-	(329)	-	-	(53)	-	-	(256)	-	-	(423)	(1,061)
Repayments	(1,253)	(86)	(489)	(590)	(170)	(111)	(249)	(44)	(78)	(154)	(75)	(83)	(3,382)
Foreign exchange differences and other movements	(490)	142	224	150	132	123	50	20	35	(7)	58	44	481
Gross Carrying amount at 31 December	7,429	1,416	4,823	5,686	3,397	5,812	1,441	245	1,176	1,282	1,171	3,397	37,275
Impairment allowance	(50)	(97)	(2,581)	(30)	(279)	(2,145)	(33)	(91)	(919)	(11)	(211)	(1,520)	(7,967)
Carrying amount at 31 December	7,379	1,319	2,242	5,656	3,118	3,667	1,408	154	257	1,271	960	1,877	29,308

[(1)] Refers to the loans at amortized cost, acquired from the Bank's subsidiary ERB New Europe Funding II B.V.

[(2)] The contractual amount outstanding on lending exposures that were written off during the year ended 31 December 2019 and that are still subject to enforcement activity is € 786 million (2018: € 1,010 million).

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 during the year due to a) securitization/ sale transactions (note 20) and b) substantial modifications of the loans' contractual terms and those that have been reclassified as held for sale during the year (note 30).

Credit impaired loans and advances to customers

The following tables present the ageing analysis of credit impaired (Stage 3) 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 Bank 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 2019							
	Retail lending				Wholesale lending		Public sector	
	Mortgage € million	**Consumer € million**	**Credit card € million**	**Small business € million**	**Large corporate € million**	**SMEs € million**	**Greece € million**	**Lifetime ECL credit-impaired € million**
up to 90 days	812	104	1	349	614	358	-	**2,238**
90 to 179 days	116	28	5	61	99	47	-	**356**
180 to 360 days	107	33	5	66	23	32	-	**266**
more than 360 days	2,701	745	50	2,657	914	2,043	-	**9,110**
Total gross carrying amount	**3,736**	**910**	**61**	**3,133**	**1,650**	**2,480**	**-**	**11,970**
Impairment allowance	(1,456)	(776)	(55)	(1,481)	(823)	(1,391)	-	**(5,982)**
Carrying amount	**2,280**	**134**	**6**	**1,652**	**827**	**1,089**	**-**	**5,988**
Value of Collateral	**2,393**	**120**	**-**	**1,702**	**831**	**1,076**	**-**	**6,122**

	31 December 2018							
	Retail lending				Wholesale lending		Public sector	
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece € million	Lifetime ECL credit-impaired € million
up to 90 days	1,229	121	1	560	906	392	-	3,209
90 to 179 days	227	45	5	78	38	48	-	441
180 to 360 days	159	60	6	67	24	25	-	341
more than 360 days	4,197	740	198	2,692	1,262	2,128	0	11,217
Total gross carrying amount	5,812	966	210	3,397	2,230	2,593	0	15,208
Impairment allowance	(2,145)	(747)	(172)	(1,520)	(1,235)	(1,346)	(0)	(7,165)
Carrying amount	3,667	219	38	1,877	995	1,247	0	8,043
Value of Collateral	3,836	128	-	1,751	937	1,098	-	7,750

(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:

	2019 € million	2018 € million
Mortgages		
Less than 50%	**3,091**	3,136
50%-70%	**1,944**	1,774
71%-80%	**1,255**	1,186
81%-90%	**961**	1,075
91%-100%	**2,034**	2,560
101%-120%	**956**	1,460
121%-150%	**841**	1,288
Greater than 150%	**1,574**	2,416
Total exposure	**12,656**	14,895
Average LTV	**80.13%**	90.31%

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

	31 December 2019				
	Value of collateral received				**Guarantees received**
	Real Estate € million	**Financial € million**	**Other € million**	**Total € million**	**€ million**
Retail Lending	**13,237**	**332**	**82**	**13,651**	**263**
Wholesale Lending [1]	**2,732**	**100**	**3,910**	**6,742**	**124**
Public sector	**1**	**1**	**0**	**2**	**-**
Total	**15,970**	**433**	**3,992**	**20,395**	**387**

	31 December 2018				
	Value of collateral received				Guarantees received
	Real Estate € million	Financial € million	Other € million	Total € million	€ million
Retail Lending	14,491	288	68	14,847	196
Wholesale Lending [1]	2,651	75	2,860	5,586	150
Public sector	1	4	-	5	-
Total	17,143	367	2,928	20,438	346

[1] *Other collaterals include assigned receivables, equipment, inventories, vessels, etc.*

Repossessed assets

The Bank recognizes collateral assets on the balance sheet by taking possession usually through legal processes or by calling upon other credit enhancements. The main type of collateral that the Bank repossesses against repayment or reduction of the outstanding loan is real estate, which is recognized within repossessed assets and carried at the lower of cost or net realizable value (see also notes 2.2.18 and 29). In cases where the Bank makes use of repossessed properties as part of its operations, they are classified as own-used or investment properties, as appropriate (notes 2.2.6, 26 and 27).

The following tables present a summary of collaterals that the Bank took possession, and were recognized as repossessed assets, as well as the net gains/ (losses) arising from the sale of such assets in the year:

	31 December 2019						
	Gross amount € million	**Of which: added this year € million**	**Accumulated impairment € million**	**Of which: arising this year € million**	**Net amount € million**	**Net Sale Price € million**	**Net gain/(loss) on sale € million**
Real estate auction items	**504**	**128**	**(93)**	**4**	**411**	**19**	**(1)**
- Residential	*247*	*46*	*(46)*	*15*	*201*	*14*	*(1)*
- Commercial	*257*	*82*	*(47)*	*(11)*	*210*	*5*	(0)

	31 December 2018						
	Gross amount € million	Of which: added this year € million	Accumulated impairment € million	Of which: arising this year € million	Net amount € million	Net Sale Price € million	Net gain/(loss) on sale € million
Real estate auction items	455	135	(97)	0	358	25	(1)
- Residential	*268*	*62*	*(61)*	*4*	*207*	*18*	*(1)*
- Commercial	*187*	*73*	*(36)*	*(4)*	*151*	*7*	*0*

Properties that have been classified as held for sale (note 30) in 2019 following their transfer from repossessed properties category, amounted to € 28 million (2018: nil).

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

As described above in note 5.2.1, the Bank 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.

The following tables break down the Bank'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 2019											
	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 credit-Impaired € million	Impairment allowance € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Impairment allowance € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Impairment allowance € million
Retail Lending	**9,014**	**4,157**	**7,758**	**(4,115)**	**88**	**37**	**82**	**(14)**	**-**	**-**	**-**	**-**
-Mortgage	*5,794*	*3,007*	*3,675*	*(1,627)*	*84*	*35*	*61*	*(13)*	-	-	-	-
-Consumer	*795*	*233*	*907*	*(820)*	*3*	*1*	*3*	*(1)*	-	-	-	-
-Credit card	*553*	*30*	*61*	*(74)*	-	-	-	-	-	-	-	-
-Small business	*1,872*	*887*	*3,115*	*(1,594)*	*1*	*1*	*18*	*(0)*	-	-	-	-
Wholesale Lending	**7,204**	**1,220**	**3,779**	**(2,118)**	**1,198**	**14**	**277**	**(183)**	**1,126**	**39**	**74**	**(35)**
-Commerce and services [(1)]	*3,747*	*366*	*1,797*	*(1,032)*	*1,067*	*10*	*140*	*(113)*	*12*	-	*32*	*(18)*
-Manufacturing	*1,666*	*235*	*740*	*(436)*	-	-	*1*	*(0)*	-	-	-	-
-Shipping	*8*	*5*	*8*	*(7)*	*120*	-	*62*	*(57)*	*1,114*	*39*	*24*	*(7)*
-Construction	*608*	*336*	*849*	*(509)*	*11*	*4*	*20*	*(13)*	-	-	*18*	*(10)*
-Tourism	*637*	*271*	*375*	*(122)*	-	-	-	-	-	-	-	-
-Energy	*538*	*7*	*10*	*(12)*	-	-	-	-	-	-	-	-
-Other	*0*	-	*0*	*(0)*	*0*	*0*	*54*	*(0)*	-	-	-	-
Public Sector	**44**	**3**	**-**	**(1)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total	***16,262***	***5,380***	***11,537***	***(6,234)***	***1,286***	***51***	***359***	***(197)***	***1,126***	***39***	***74***	***(35)***
Credit related Commitments	**3,704**	**186**	**108**	**(66)**	**220**	**37**	**403**	**(223)**	**176**	**16**	**0**	**(0)**
-Loan commitments	*2,669*	*69*	*4*	*(20)*	-	-	-	-	*108*	-	-	*(0)*
-Financial guarantee contracts and other commitments	*1,035*	*117*	*104*	*(46)*	*220*	*37*	*403*	*(223)*	*68*	*16*	*0*	*(0)*

	31 December 2018											
	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 credit-Impaired € million	Impairment allowance € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Impairment allowance € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-Impaired € million	Impairment allowance € million
Retail Lending	8,409	4,813	10,385	(5,239)	-	-	-	-	-	-	-	-
-Mortgage	*5,686*	*3,397*	*5,812*	*(2,454)*	-	-	-	-	-	-	-	-
-Consumer	*873*	*230*	*966*	*(860)*	-	-	-	-	-	-	-	-
-Credit card	*568*	*15*	*210*	*(183)*	-	-	-	-	-	-	-	-
-Small business	*1,282*	*1,171*	*3,397*	*(1,742)*	-	-	-	-	-	-	-	-
Wholesale Lending	6,356	1,325	4,514	(2,497)	103	15	202	(154)	914	76	107	(76)
-Commerce and services	*3,177*	*539*	*2,160*	*(1,263)*	*26*	*8*	*111*	*(78)*	*5*	*24*	*54*	*(42)*
-Manufacturing	*1,534*	*232*	*902*	*(488)*	-	*1*	*1*	*(0)*	-	-	-	-
-Shipping	*22*	*0*	-	*(0)*	*77*	-	*61*	*(56)*	*909*	*52*	*35*	*(24)*
-Construction	*556*	*307*	*994*	*(596)*	*0*	*6*	*20*	*(13)*	-	-	*18*	*(10)*
-Tourism	*564*	*236*	*447*	*(136)*	-	-	-	-	-	-	-	-
-Energy	*503*	*11*	*9*	*(13)*	-	-	*4*	*(4)*	-	-	-	-
-Other	-	-	*2*	*(1)*	-	-	*5*	*(3)*	-	-	-	-
Public Sector	56	-	0	(1)	-	-	-	-				
Total	*14,821*	*6,138*	*14,899*	*(7,737)*	*103*	*15*	*202*	*(154)*	*914*	*76*	*107*	*(76)*
Credit related Commitments	3,568	101	113	(61)	270	60	785	(244)	56	17	0	(0)
-Loan commitments	*2,400*	*10*	*0*	*(7)*	-	-	-	-	*28*	-	-	*(0)*
-Financial guarantee contracts and other commitments	*1,168*	*91*	*113*	*(54)*	*270*	*60*	*785*	*(244)*	*28*	*17*	*0*	*(0)*

[(1)] *The operations in Rest of Europe include € 1,058 million related to the notes of the Pillar securitization.*

As at 31 December 2019, the carrying amount of Bank's loans measured at FVTPL of € 50 million (2018: € 46 million) was included in Wholesale lending portfolio,of which € 47 million (2018: € 46 million) were held by operations in Greece, while € 3 million (2018: nil) 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 Bank 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 Bank, 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 Bank 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 Bank, 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 Bank from suffering credit losses. The Bank 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;
- 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 reduced 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.

The Troubled Assets Group General Division (TAG) is the independent body, which has the overall responsibility for the management of the Group's troubled assets portfolio, in alignment with the Bank of Greece Executive Committee Act 42/30.05.2014 and its amendments. TAG controls and monitors the effectiveness of the forbearance schemes and warrants the continuous improvement and adjustment of policies and procedures.

TAG cooperates with Risk Management to reach a mutual understanding and develop an appropriate methodology for the evaluation of the risks inherent in every type of modification and delinquency bucket, per portfolio. Further information regarding TAG's structure and main responsibilities are provided in notes 5.2.

Debt for equity swaps

For wholesale portfolios, the Bank on occasion participates in debt for equity transactions as part of forbearance measures, as described in note 2.2.9. In 2019, equity positions acquired by the Bank and held as of 31 December 2019 are: a) 12.46% of the non-voting preference shares of Helesi S.A. for € 1.8 thousand and b) 6.75% of the non-voting preference shares of Akritas S.A. for € 0.01 million. Similarly in 2018, equity positions acquired by the Bank and held as of 31 December 2018 were: a) 10.67% of the non-voting shares of Pillarstone Bidco S.C.A. for € 0.02 million, in the context of the restructuring of Famar S.A. and b) 12.1% of Regency Hellenic Investments S.A. for € 8.5 million, following the debt restructuring of Regency Entertaiment S.A.

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 Bank's forbearance activities and are reported as denounced credit impaired loans (stage 3) consistently with the Bank's management and monitoring of all denounced loans

ii. Impairment assessment

Where forbearance measures are extended, the Bank performs an assessment of the borrower's financial condition and its ability to repay, under the Bank'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 Bank 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 Bank recalculates the gross carrying amount of the loan and recognizes the difference as a modification gain or loss in the income statement. The Bank 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 2019, the carrying amount of Bank's forborne loans measured at FVTPL amounted to € 26 million (2018: € 31 million).

The following tables present an analysis of Bank'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 Bank's internal credit risk monitoring and reporting.

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

	2019 € million	2018 € million
Forbearance measures:		
Split balance	**2,338**	3,213
Loan term extension	**2,462**	2,988
Arrears capitalisation	**378**	556
Reduced payment below interest owed	**215**	254
Interest rate reduction	**586**	656
Reduced payment above interest owed	**230**	506
Arrears repayment plan	**53**	118
Interest only	**20**	37
Grace period	**85**	99
Debt/equity swaps	**28**	65
Partial debt forgiveness/Write-down	**30**	24
Operational restructuring	**74**	49
Other	**238**	174
Total gross carrying amount	**6,737**	8,739
Less: cumulative impairment allowance	**(1,483)**	(1,997)
Total carrying amount	**5,254**	6,742

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

	31 December 2019		
	Total loans & advances at amortised cost € million	Forborne loans & advances € million	% of Forborne loans & advances
Gross carrying amounts:			
12-month ECL-Stage 1	18,674	-	0%
Lifetime ECL-Stage 2	5,470	3,831	70%
Lifetime ECL credit-impaired	11,970	2,906	24%
Total Gross Amount	36,114	6,737	19%
Cumulative ECL Loss allowance:			
12-month ECL-Stage 1	(105)	-	
Lifetime ECL -Stage 2	(379)	(299)	
Lifetime ECL (credit-impaired) of which:	(5,982)	(1,184)	
- Individually assessed	*(1,872)*	*(337)*	
- Collectively assessed	*(4,110)*	*(847)*	
Total carrying amount	29,648	5,254	18%
Collateral received	20,395	4,752	

	31 December 2018		
	Total loans & advances at amortised cost € million	Forborne loans & advances € million	% of Forborne loans & advances
Gross carrying amounts:			
12-month ECL-Stage 1	15,838	-	0%
Lifetime ECL-Stage 2	6,229	4,489	72%
Lifetime ECL credit-impaired	15,208	4,250	28%
Total Gross Amount	37,275	8,739	23%
Cumulative ECL Loss allowance:			
12-month ECL-Stage 1	(124)	-	
Lifetime ECL - Stage 2	(678)	(527)	
Lifetime ECL (credit-impaired) of which:	(7,165)	(1,470)	
- Individually assessed	*(2,322)*	*(447)*	
- Collectively assessed	*(4,843)*	*(1,023)*	
Total carrying amount	29,308	6,742	23%
Collateral received	20,438	5,883	

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

	2019 € million	2018 € million
Gross carrying amount at 1 January	**8,739**	10,005
Forbearance measures in the year [(1)]	**726**	1,010
Forborne loans derecognised/ reclassified as held for sale during the year [(2)]	**(782)**	(41)
Write-offs of forborne loans	**(95)**	(20)
Repayment of loans	**(351)**	(406)
Loans & advances that exited forbearance status [(3)]	**(1,732)**	(1,999)
Other	**232**	190
Less: cumulative impairment allowance	**(1,483)**	(1,997)
Carrying amount at 31 December	**5,254**	6,742

[(1)] Forbearnce measures in the year depict loans to which forbearance measures were granted for the first time during the reporting period.

[(2)] "Forborne loans derecognised/ reclassified as held for sale during the year" presents loans derecognized during the year due to a) sale transactions and b) substantial modifications of the loans' contractual terms and those that have been reclassified as held for sale during the year (note 30).

[(3)] In 2019, an amount of € 466 million loans and advances that exited forbearance status refers to loans that were denounced (2018: € 825 million).

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

	2019 € million	2018 € million
Retail Lending	**5,295**	7,020
- Mortgage	*3,689*	*4,960*
- Consumer	*276*	*390*
- Credit card	*0*	*0*
- Small business	*1,330*	*1,670*
Wholesale Lending	**1,442**	1,719
-Large corporate	*802*	*1,066*
-SMEs	*640*	*653*
Total gross carrying amount	**6,737**	8,739
Less: cumulative impairment allowance	**(1,483)**	(1,997)
Total carrying amount	**5,254**	6,742

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

	2019 € million	2018 € million
Greece	**6,616**	8,666
Rest of Europe	**111**	40
Other countries	**10**	33
Total gross carrying amount	**6,737**	8,739
Less: cumulative impairment allowance	**(1,483)**	(1,997)
Total carrying amount	**5,254**	6,742

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	2019 € million	2018 € million
Loans modified during the year with loss allowance measured at an amount equal to lifetime ECL		
Gross carrying amount at 31 December [(1)]	1,593	1,969
Modification loss	63	68
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	1,080	560

[(1)] *Gross carrying amount at 31 December includes all loans modifications due to forbearance during the year.*

In the year ended 31 December 2019, 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 € 101 million (2018: € 96 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 2019 and 2018, based on Moody's ratings or their equivalent:

	31 December 2019		
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Total € million
Investment securities at amortised cost			
Gross Carrying Amount - Lower than A3	**1,044**	**-**	**1,044**
Impairment Allowance	**(2)**	**-**	**(2)**
Carrying Amount	**1,042**	**-**	**1,042**
Investment securities at FVOCI			
Aaa	**158**	**-**	**158**
Aa1 to Aa3	**336**	**-**	**336**
A1 to A3	**304**	**-**	**304**
Lower than A3	**4,576**	**-**	**4,576**
Unrated	**69**	**-**	**69**
Carrying amount	**5,443**	**-**	**5,443**

	31 December 2018		
	12-month ECL- Stage 1 € million	Lifetime ECL- Stage 2 € million	Total € million
Investment securities at amortised cost			
Gross Carrying Amount - Lower than A3	217	754	971
Impairment Allowance	(2)	(28)	(30)
Carrying Amount	215	726	941
Investment securities at FVOCI			
Aaa	219	-	219
Aa1 to Aa3	1,093	-	1,093
A1 to A3	435	-	435
Lower than A3	3,739	21	3,760
Unrated	71	-	71
Carrying amount	5,557	21	5,578

	31 December 2019	
	Securities held for trading € million	**Investment securities measured at FVTPL € million**
Securities at FVTPL		
Aa1 to Aa3	**-**	**3**
Lower than A3	**50**	**0**
Carrying Amount	**50**	**3**

	31 December 2018	
	Securities held for trading € million	Investment securities measured at FVTPL € million
Securities at FVTPL		
A1 to A3	-	4
Unrated	18	0
Carrying Amount	0	-
	18	4

Securities rated lower than A3 include: € 4,308 million related to Greek sovereign debt (2018: € 3,180 million), € 759 million related to Eurozone members sovereign debt (2018: € 1,115 million) and € 121 million related to sovereign debt issued mainly by European Union members and candidate members and other European countries (2018: € 83 million).

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

	31 December 2019						
	Greece		Other European countries		Other countries		
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Total € million
Investment securities at amortised cost							
Sovereign	1,044	-	-	-	-	-	1,044
Banks	-	-	-	-	-	-	-
Corporate	-	-	-	-	-	-	-
Gross Carrying Amount	1,044	-	-	-	-	-	1,044
Impairment Allowance	(2)	-	-	-	-	-	(2)
Net Carrying Amount	1,042	-	-	-	-	-	1,042
Investment securities at FVOCI							
Sovereign [1]	3,226	-	1,346	-	115	-	4,687
Banks	88	-	130	-	10	-	228
Corporate	151	-	234	-	143	-	528
Carrying Amount	3,465	-	1,710	-	268	-	5,443

	31 December 2018						
	Greece		Other European countries		Other countries		
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Total € million
Investment securities at amortised cost							
Sovereign	216	754	-	-	-	-	970
Banks	-	-	-	-	-	-	-
Corporate	1	-	-	-	-	-	1
Gross Carrying Amount	217	754	-	-	-	-	971
Impairment Allowance	(2)	(28)	-	-	-	-	(30)
Net Carrying Amount	215	726	-	-	-	-	941
Investment securities at FVOCI							
Sovereign [1]	2,229	-	2,740	-	50	-	5,019
Banks	61	-	92	-	4	-	157
Corporate	144	16	156	5	81	-	402
Carrying Amount	2,434	16	2,988	5	135	-	5,578

[1] As at 31 December 2019, sovereign debt securities of other European countries include EFSF bonds of carrying amount of € 199 million (2018: € 453 million).

	31 December 2019		
	Greece € million	Other European countries € million	Total € million
Investment securities at FVTPL			
Sovereign	-	-	-
Banks	-	-	-
Corporate	0	3	3
Carrying amount	0	3	3
Securities held for trading			
Sovereign	40	8	48
Banks	-	-	-
Corporate	1	1	2
Carrying amount	41	9	50

	31 December 2018		
	Greece	Other European countries	Total
	€ million	€ million	€ million
Investment securities at FVTPL			
Sovereign	-	-	-
Banks	-	-	-
Corporate	0	4	4
Carrying amount	0	4	4
Securities held for trading			
Sovereign	11	-	11
Banks	-	6	6
Corporate	1	-	1
Carrying amount	12	6	18

During the year ended 31 December 2019, the Bank recognized € 74 million gains presented in line 'Gains less losses from investment securities', of which € 58 million resulted from debt securities at FVOCI sale transactions and € 16 million mainly from the increase in the fair value of equity instruments. In the comparative period, the Bank had recognized € 79 million gains, mainly as a result of debt securities at FVOCI sale transactions.

In the year ended 31 December 2019, the improvement of the credit spreads of the Hellenic Republic debt, resulted in the increase of the fair value of Greek Government Bonds classified at FVOCI.

5.2.1.4 Offsetting of financial assets and financial liabilities

The disclosures set out in the tables below include financial assets and financial liabilities that:

(a) are offset in the Bank's balance sheet according to IAS 32 'Financial Instruments: Presentation' criteria; or

(b) are subject to enforceable master netting arrangements or similar agreements that cover similar financial instruments, irrespective of whether they are offset in balance sheet.

Regarding the former, financial assets and financial liabilities are offset and the net amount is reported in the balance sheet when, there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously (the offset criteria), as also set out in Bank's accounting policy 2.2.4.

Regarding the latter, the International Swaps and Derivatives Association (ISDA) and similar master netting arrangements do not meet the criteria for offsetting in the balance sheet, as they create a right of set-off that is enforceable only following an event of default, insolvency or bankruptcy of the Bank or the counterparties or following other predetermined events. In addition, the Bank and its counterparties may not intend to settle on a net basis or to realize the assets and settle the liabilities simultaneously.

Similar agreements to ISDA include derivative clearing agreements, global master repurchase agreements, and global master securities lending agreements. Similar financial instruments include derivatives, repos and reverse repos agreements and securities borrowing and lending agreements. Financial instruments such as loans and deposits are not subject to this disclosure unless they are offset in the balance sheet.

The following tables present financial assets and financial liabilities that meet the criteria for offsetting and thus are reported 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 offset criteria mentioned above are not satisfied. The latter amounts, which mainly relate to derivatives, repos and reverse repos, are not set off in the balance sheet. In respect of these transactions, the Bank receives and provides collateral in the form of marketable securities and cash that are included in the tables below under columns 'financial instruments' and 'cash collateral' at their fair value.

	31 December 2019					
				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	1,634	(1,607)	27	(27)	-	-
Derivative financial instruments	2,251	-	2,251	(2,135)	(24)	92
Total	3,885	(1,607)	2,278	(2,162)	(24)	92

	31 December 2019					
				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	2,723	-	2,723	(608)	(2,073)	42
Repurchase agreements with banks	8,395	(1,607)	6,788	(6,788)	-	-
Total	11,118	(1,607)	9,511	(7,396)	(2,073)	42

	31 December 2018					
				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	120	(100)	20	(20)	-	-
Derivative financial instruments	1,874	-	1,874	(1,790)	(23)	61
Total	1,994	(100)	1,894	(1,810)	(23)	61

	31 December 2018					
				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	1,897	-	1,897	(601)	(1,285)	11
Repurchase agreements with banks	8,010	(100)	7,910	(7,910)	-	-
Total	9,907	(100)	9,807	(8,511)	(1,285)	11

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 Bank 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 of the above, can affect the Bank's income or the fair value of its financial instruments. The market risks the Bank is exposed to, are managed and monitored by Group Market and Counterparty Risk Sector (GMCRS).

GMCRS is responsible for the measurement, monitoring 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, interest rate gaps);
- Implementation of Stress Testing methodologies for market risk (historical and hypothetical), and IRRBB;
- Monitoring and reporting of market and IRRBB risk limits utilization; and
- Development, maintenance and expansion of risk management infrastructure

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

(a) Interest rate risk

The Bank 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 Bank 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 Bank undertakes arises mainly from the investment portfolio.

(d) Implied volatilities

The Bank carries limited implied volatility (vega) risk, mainly as a result of proprietary swaption positions.

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

Market risk is managed and monitored using Value at Risk (VaR) methodology.

(i) VaR summary for 2019 and 2018

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 Bank 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).

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.

Since VaR constitutes an integral part of the Bank's market risk control regime, VaR limits have been established for all (trading and investment portfolios) operations 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.

Average VaR by risk type (Trading and Investment portfolios [(1)])-Greece

	2019 **€ million**	2018 € million
Interest Rate Risk	**42**	35
Foreign Exchange Risk	**0**	0
Equities Risk	**0**	1
Total VaR	**42**	35

[(1)] Interest rate volatility applied to all portfolios. Credit spread volatility applied to FVTPL and FVOCI positions.

The aggregate VaR of the interest rate, foreign exchange and equities VaR benefits from diversification effects.

Interest Rate VaR takes into account the changes to the fair valuation of all the Bank's items that are attributable to movements in the interest rates. This includes loans and deposits (customers and interbank), Eurosystem funding and debt issued, as well as securities and derivatives held by the Bank. Despite the large relative size of the loan and deposit portfolio, Eurosystem funding and debt issued, its timing and amount matching, combined with the current level of interest rates, mean that the incremental contribution of these items to the Interest Rate VaR is not material. The largest portion of the Bank's Interest Rate VaR figures is attributable to the risk associated with interest rate sensitive securities and derivatives.

Interest rate exposure for the Bank's securities, derivatives portfolio, covered bonds, securitizations and Tier 2 notes can be analyzed into time bands as shown in the following tables:

	31 December 2019				
	Less than 1 month **€ million**	**1-3 months** **€ million**	**3-12 months** **€ million**	**1-5 years** **€ million**	**More than 5 years** **€ million**
Securities held for trading	**-**	**1**	**1**	**6**	**32**
-Fixed coupon bonds	-	1	1	6	32
Investment securities	**50**	**87**	**257**	**868**	**3,832**
-Fixed coupon bonds	25	56	254	868	3,832
-Variable coupon bonds	25	31	3	-	-
Debt issued (Third parties)	**-**	**(944)**	**(500)**	**-**	**(950)**
-Fixed coupon covered bonds	-	-	(500)	-	-
-Fixed coupon subordinated notes (Tier 2)	-	-	-	-	(950)
-Variable coupon securitisations	-	(944)	-	-	-
Derivatives[(1)]	**278**	**(528)**	**1,714**	**(1,098)**	**(398)**

	31 December 2018				
	Less than 1 month € million	1-3 months € million	3-12 months € million	1-5 years € million	More than 5 years € million
Securities held for trading	-	2	1	2	13
-Fixed coupon bonds	-	-	1	2	13
-Variable coupon bonds	-	2	-	-	-
Investment securities	36	58	516	2,304	3,229
-Fixed coupon bonds	-	-	516	2,304	3,229
-Variable coupon bonds	36	58	-	-	-
Debt issued (Third parties)	-	(1,246)	-	(500)	(950)
-Fixed coupon covered bonds	-	-	-	(500)	-
-Fixed coupon subordinated notes (Tier 2)	-	-	-	-	(950)
-Variable coupon securitisations	-	(1,246)	-	-	-
Derivatives[(1)]	348	1,782	1,389	(1,441)	(2,122)

[(1)] For linear interest rate derivatives, notional amounts are shown in the appropriate time band, aggregated across all currencies. For non-linear interest rate derivatives, delta equivalent notional amounts are shown in the appropriate time band, aggregated across all currencies.

(ii) Foreign exchange risk

The following table presents the Bank's exposure to foreign currency exchange risk as at 31 December 2019 and 2018:

	31 December 2019							
	USD	**CHF**	**RON**	**RSD**	**BGN**	**OTHER**	**EUR**	**Total**
	€ million	**€ million**	**€ million**	**€ million**	**€ million**	**€ million**	**€ million**	**€ million**
ASSETS								
Cash and balances with central banks	**7**	**1**	**-**	**-**	**-**	**4**	**2,614**	**2,626**
Due from credit institutions	**129**	**9**	**18**	**0**	**1**	**34**	**3,268**	**3,459**
Securities held for trading	**0**	**-**	**-**	**-**	**-**	**0**	**50**	**50**
Derivative financial instruments	**23**	**2**	**-**	**-**	**0**	**0**	**2,253**	**2,278**
Loans and advances to customers	**1,516**	**3,378**	**20**	**-**	**0**	**14**	**24,770**	**29,698**
Investment securities	**331**	**0**	**-**	**-**	**-**	**6**	**6,243**	**6,580**
Other assets [(1)]	**15**	**18**	**45**	**233**	**189**	**0**	**9,606**	**10,106**
Assets of disposal groups classified as held for sale	**-**	**-**	**-**	**-**	**-**	**-**	**49**	**49**
Total Assets	**2,021**	**3,408**	**83**	**233**	**190**	**58**	**48,853**	**54,846**
LIABILITIES								
Due to central banks and credit institutions	**600**	**20**	**0**	**0**	**0**	**24**	**9,457**	**10,101**
Derivative financial instruments	**30**	**0**	**0**	**-**	**0**	**0**	**2,694**	**2,724**
Due to customers	**1,883**	**19**	**0**	**0**	**0**	**133**	**30,658**	**32,693**
Debt securities in issue	**0**	**-**	**-**	**-**	**-**	**-**	**2,390**	**2,390**
Other Liabilities	**7**	**0**	**26**	**-**	**0**	**0**	**1,048**	**1,081**
Total Liabilities	**2,520**	**39**	**26**	**0**	**0**	**157**	**46,247**	**48,989**
Net on balance sheet position	**(499)**	**3,369**	**57**	**233**	**190**	**(99)**	**2,606**	**5,857**
Derivative forward foreign exchange position	**512**	**(3,370)**	**(12)**	**-**	**(506)**	**101**	**3,225**	**(50)**
Total Foreign Exchange Position	**13**	**(1)**	**45**	**233**	**(316)**	**2**	**5,831**	**5,807**

	31 December 2018 restated							
	USD	CHF	RON	RSD	BGN	OTHER	EUR	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
ASSETS								
Cash and balances with central banks	10	1	-	-	-	4	382	397
Due from credit institutions	88	210	25	0	0	32	2,835	3,190
Securities held for trading	0	-	0	-	-	0	18	18
Derivative financial instruments	13	2	-	-	0	0	1,860	1,875
Loans and advances to customers	1,292	3,235	0	-	0	24	24,803	29,354
Investment securities	245	-	-	-	-	-	6,352	6,597
Other assets [(1)] (note 2.3.2)	3	1	-	221	189	0	8,415	8,829
Assets classified as held for sale	-	-	0	-	-	-	20	20
Total Assets	1,651	3,449	25	221	189	60	44,685	50,280
LIABILITIES								
Due to central banks and credit institutions	722	3	5	0	0	17	10,550	11,297
Derivative financial instruments	14	0	0	-	0	0	1,882	1,896
Due to customers	1,525	18	0	0	0	117	27,475	29,135
Debt securities in issue	0	-	-	-	-	-	2,697	2,697
Other Liabilities	8	1	16	-	-	0	847	872
Total Liabilities	2,269	22	21	0	0	134	43,451	45,897
Net on balance sheet position	(618)	3,427	4	221	189	(74)	1,234	4,383
Derivative forward foreign exchange position	608	(3,399)	(25)	-	(430)	65	3,322	141
Total Foreign Exchange Position	(10)	28	(21)	221	(241)	(9)	4,556	4,524

[(1)] *Other assets include Shares in subsidiaries, property, plant and equipment, Investment property, Intangible assets, Deferred tax assets and Other assets.*

5.2.3 Liquidity risk

The Bank 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 draw-downs 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 Bank 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 Bank. 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 Bank.

Liquidity Risk Management Framework

The Bank’s Liquidity Risk Management Policy defines the following supervisory and control structure:

- Board Risk Committee's role is to approve all strategic liquidity risk management decisions and 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 Bank's risk appetite, and to review at least monthly the overall liquidity position of the Bank;
- Group Treasury is responsible for the implementation of the Bank's liquidity strategy, the daily management of the Bank’s liquidity and for the preparation and monitoring of the Bank’s liquidity budget; and
- Group Market and Counterparty Risk Sector is responsible for measuring, monitoring and reporting the liquidity of the Bank.

The following list summarizes the main reports which are produced on a periodic basis:

(a) The regulatory liquidity gap report along with the regulatory liquidity ratios;
(b) Stress test scenarios. These scenarios evaluate the impact of a number of stress events on the Bank's liquidity position;
(c) Report on market sensitivities affecting liquidity;
(d) Liquidity coverage ratios (LCR) estimation (Basel III new regulatory ratio); and
(e) Reporting on the Bank’s Asset Encumbrance.

Maturity analysis of assets and assets held for managing liquidity risk

The following tables present maturity analysis of Bank assets as at 31 December 2019 and 2018, based on their carrying values. Loans without contractual maturities are presented in the ‘less than 1 month’ time bucket. The Bank has established credit risk mitigation contracts with its interbank counterparties (ISDA/CSA). Under these contracts the Bank 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 2019				
	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	2,626	-	-	-	2,626
- Due from credit institutions	382	96	280	414	1,172
- Loans and advances to customers	1,925	317	2,806	24,650	29,698
- Debt Securities	43	41	262	6,192	6,538
- Equity Securities	-	-	-	92	92
- Derivative financial instruments	-	-	-	118	118
- Other assets[1]	83	11	10	10,002	10,106
- Assets of disposal groups classified as held for sale (note 30)	-	2	47	-	49
Total	**5,059**	**467**	**3,405**	**41,468**	**50,399**

	31 December 2018 restated				
	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	397	-	-	-	397
- Due from credit institutions	663	142	361	462	1,628
- Loans and advances to customers	2,276	325	2,058	24,695	29,354
- Debt Securities	-	6	528	6,007	6,541
- Equity Securities	-	-	-	74	74
- Derivative financial instruments	-	-	-	66	66
- Other assets[1] (note 2.3.2)	72	10	9	8,738	8,829
- Assets of disposal groups classified as held for sale (note 30)	20	-	-	-	20
Total	3,428	483	2,956	40,042	46,909

[1] *Other assets include Shares in subsidiaries, Property, plant and equipment, Investment property, Intangible assets, Deferred tax assets and Other assets.*

The Bank holds a diversified portfolio of cash and high liquid assets to support payment obligations and contingent deposit withdrawals in a stressed market environment. The Bank'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.

Maturity analysis of liabilities

The amounts disclosed in the tables below are the contractual undiscounted cash flows for the years 2019 and 2018. Liabilities without contractual maturities (sight and saving deposits) are presented in the 'less than 1 month' time bucket. The Bank has established credit risk mitigation contracts with its interbank counterparties (ISDA/CSA). Due to these contracts the Bank 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 earlier than expected (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 2019				
	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	5,406	2,358	10	2,338	10,112
- Due to customers	24,194	3,920	4,600	-	32,714
- Debt securities in issue	31	84	792	2,050	2,957
- Lease liabilities	2	4	18	111	135
- Other liabilities	193	247	520	-	960
	29,826	6,613	5,940	4,499	46,878
Derivative financial instruments:	5	-	-	-	5

Off-balance sheet items

	Less than 1 year € million	Over 1 year € million
Credit related commitments	3,627	1,224
Contractual commitments [1]	136	-
Total	3,763	1,224

	31 December 2018				
	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	8,828	790	-	1,688	11,306
- Due to customers	22,155	2,802	4,195	4	29,156
- Debt securities in issue	1	91	327	3,043	3,462
- Other liabilities	103	169	600	-	872
	31,087	3,852	5,122	4,735	44,796
Derivative financial instruments:	13	-	-	-	13

Off-balance sheet items

	Less than 1 year € million	Over 1 year € million
Credit related commitments	3,906	1,064
Contractual commitments [(1)]	13	-
Operating lease commitments	26	81
Total	3,945	1,145

[(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

Following the financial crisis, global regulators undertook a fundamental review of major interest rate benchmarks and decided to replace existing Interbank Offered Rates (IBORs) with alternative reference rates in currency jurisdictions that will be based on liquid underlying market transactions. As a result of this project (referred to as the 'IBOR reform'), there may be uncertainties relating to the long-term viability of the existing IBORs.

In this context, the Bank has established an IBOR Working Group, led by senior representatives from Units across the Bank including Economic Analysis and Research, Global Markets and GMCRS, and the participation of other Business Units and the support of Legal and Group Organization & Business Analysis (Regulatory Unit) Units, in order to manage the transition to the new alternative risk free rates that will replace the current interbank offered rates (IBORs), minimize, as possible , any related risks and fully comply with the regulatory requirements on the EU Benchmarks Regulation (BMR).

The main objectives of the above mentioned IBOR Working Group include:

- Monitoring of the regulatory, market and industry developments on the IBOR reform and preparation of the action plans for an orderly transition to the new benchmark rates,
- Assessment and evaluation of implications to the business activity including proper integration of the new methodologies to calculate the alternative benchmark rates in the Bank's core systems, amendment of clearing agreements with clearing entities/brokers and contracts with financial institutions-market counterparties based on the new alternative benchmark rates, incorporation of fallback provisions as may be required or recommended by the regulatory authorities of financial markets international associations, in existing and newly originated floating rate financial instruments indexed to benchmark rates that will be replaced as part of the IBOR reform and appropriate modification of customers' contracts,
- Development of a communication strategy to all stakeholders regarding changes deriving from the IBOR Reform, and
- Regular reporting to the Group Assets Liabilities Committee and as may be required to the BRC in order to review and assess developments, recommend or approve actions and/or strategies relevant to the IBOR reform.

The Bank has exposure to a significant number of IBOR-linked financial instruments such as derivatives, debt securities, lending and deposit contracts. Since these benchmark rates will be replaced, as part of the market driven IBOR reform, there may be uncertainty regarding the methods and timing of transition to the new rates, as well as the resulting modifications of the IBOR linked financial instruments in respect of the timing or amount of the new benchmark rate-based cash flows. Accordingly, the above uncertainty may have consequences on the financial instruments' accounting treatment mainly relating to hedge accounting over the transition period, hedge designations when existing uncertainties are no longer present and the accounting treatment to be applied to any changes to the terms of the contracts.

As at 31 December 2019, the Bank is exposed to a number of interest rate benchmarks within its hedge accounting relationships that mature beyond the end of 2021, when the IBOR reform is expected to be completed, i.e. the Euribor, the USD Libor, the CHF Libor and the Euro Overnight Index Average (EONIA).

Regarding Euribor rate, as at 31 December 2019 there has been no official statement from the ECB Working Group on Euro Risk Free Rates and the European Money Markets Institute, which is the administrator of Euribor, with respect to Euribor termination date. On the contrary, Euribor from July 2019 is considered BMR compliant as a critical benchmark. Consequently, Euribor may continue to exist as a benchmark rate for the foreseeable future and related fair value hedges are not expected to be directly affected by the IBOR reform

Furthermore, the hedged items include Euro and CHF floating rate mortgage loans, Euro and US dollar fixed rate debt securities, and Euro deposits to customers. Currently, the market expects that upon the IBOR's transition, the applicable interest rates (i.e. new IBORs plus spread) will be set at such levels so as to minimize, as possible, value transfer for all parties resulting in the respective cash flows being broadly equivalent for all stakeholders, before and after the IBOR change. Considering the market view and the Bank's expectation that the hedged items will contractually remain as floating rated and the identified hedged risk components will not change, the existing uncertainties relating to the IBOR replacement during the transition period do not impact the Group's hedge accounting as at 31 December 2019.

The Bank will continue to monitor any market developments and regulatory guidance relating to the IBOR Reform and adjust its implementation plans accordingly in order to achieve mitigation of the risks resulting from the transition.

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 Bank'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 Bank 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 Bank, 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 Bank 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 loans issued by special purpose entities established by the Bank and recognized in financial assets and debt securities issued by the Bank.

Financial instruments carried at fair value

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

	31 December 2019			
	Level 1 € million	Level 2 € million	Level 3 € million	Total € million
Securities held for trading	**50**	**-**	**-**	**50**
Investment securities at FVTPL	**21**	**17**	**57**	**95**
Derivative financial instruments	**0**	**2,278**	**0**	**2,278**
Investment securities at FVOCI	**5,393**	**50**	**-**	**5,443**
Loans and advances to customers mandatorily at FVTPL	**-**	**-**	**50**	**50**
Financial assets measured at fair value	**5,464**	**2,345**	**107**	**7,916**
Derivative financial instruments	**0**	**2,724**	**-**	**2,724**
Trading liabilities	**39**	**-**	**-**	**39**
Financial liabilities measured at fair value	**39**	**2,724**	**-**	**2,763**

	31 December 2018			
	Level 1 € million	Level 2 € million	Level 3 € million	Total € million
Securities held for trading	18	0	-	18
Investment securities at FVTPL	20	6	52	78
Derivative financial instruments	0	1,874	1	1,875
Investment securities at FVOCI	5,493	85	0	5,578
Loans and advances to customers mandatorily at FVTPL	-	-	46	46
Financial assets measured at fair value	5,531	1,965	99	7,595
Derivative financial instruments	0	1,896	-	1,896
Trading liabilities	4	-	-	4
Financial liabilities measured at fair value	4	1,896	-	1,900

The Bank 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. There were no material transfers between levels during the year ended 31 December 2019.

Reconciliation of Level 3 fair value measurements

	2019 € million	2018 € million
Balance at 1 January	**99**	39
Transition to IFRS 9	**-**	52
Transfers into Level 3	**0**	0
Transfers out of Level 3	**(0)**	(1)
Additions, net of disposals and redemptions	**2**	4
Total gain/(loss) for the year included in profit or loss	**7**	4
Foreign exchange differences and other	**(1)**	1
Balance at 31 December	**107**	99

Bank's valuation processes and techniques

The Bank's processes and procedures governing the fair valuations are established by the Group Market Counterparty Risk Sector in line with the Bank's accounting policies. The Bank 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 Bank and the counterparty, where appropriate.

Valuation controls applied by the Bank 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.

OTC derivative financial instruments are fair valued 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 Bank 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 Bank 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 Bank 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 Bank 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 which contractual cash flows 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. 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. A reasonably possible increase/decrease in those recovery rates by +5%/-5% would increase/decrease the total fair value measurement by € 2 million.

Financial instruments not measured at fair value

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

	31 December 2019				
	Level 1 € million	Level 2 € million	Level 3 € million	Fair value € million	Carrying amount € million
Loans and advances to customers	-	-	29,734	29,734	29,648
Investment securities at amortized cost	-	681	-	681	1,042
Financial assets not measured at fair value	**-**	**681**	**29,734**	**30,415**	**30,690**
Debt securities in issue held by third party investors	513	865	944	2,322	2,390
Financial liabilities not measured at fair value	**513**	**865**	**944**	**2,322**	**2,390**

	31 December 2018				
	Level 1 € million	Level 2 € million	Level 3 € million	Fair value € million	Carrying amount € million
Loans and advances to customers	-	-	29,270	29,270	29,308
Investment securities at amortized cost	-	392	-	392	941
Financial assets not measured at fair value	-	392	29,270	29,662	30,249
Debt securities in issue held by third party investors	510	722	1,247	2,479	2,691
Financial liabilities not measured at fair value	510	722	1,247	2,479	2,691

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 loans issued by special purpose entities established by the Bank: for loans and advances to customers, 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 Bank makes assumptions on expected prepayments, product spreads and timing of collateral realization. The discount rates incorporate inputs for expected credit losses and interest rates, as appropriate;

(b) Investment securities measured at amortized cost: the fair values of financial investments 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; and

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

	2019 € million	2018 € million
Interest income		
Customers	**1,084**	1,197
- measured at amortized cost	*1,082*	*1,196*
- measured at FVTPL	*2*	*1*
Banks and other assets [1]	**32**	30
Securities [2]	**157**	151
- measured at amortized cost	*15*	17
- measured at FVOCI	*141*	133
- measured at FVTPL	*1*	1
Derivatives (hedge accounting) [3]	**51**	59
Derivatives (no hedge accounting) [3]	**377**	370
	1,701	1,807
Interest expense		
Customers [1]	**(130)**	(129)
Banks [1]	**(75)**	(140)
Debt securities in issue [1]	**(105)**	(85)
Derivatives (hedge accounting) [3]	**(36)**	(38)
Derivatives (no hedge accounting) [3]	**(360)**	(360)
Lease liabilities - IFRS 16	**(3)**	-
	(709)	(752)
Total	**992**	1,055

[1] *Measured at amortized cost.*

[2] *The interest income from trading securities included is immaterial for the year ended 31 December 2019 and 2018.*

[3] *For year 2018, it includes a reclassification between hedge and no hedge accounting of € 44 million in interest income and € 35 million in interest expense.*

Interest income recognized by quality of Loans and Advances and Product Line is further analyzed below:

	31 December 2019		
	Interest income on non-impaired loans and advances **€ million**	**Interest income on impaired loans and advances** **€ million**	**Total** **€ million**
Retail lending	**433**	**198**	**631**
Wholesale lending[1]	**358**	**95**	**453**
Total interest income from customers	**791**	**293**	**1,084**

	31 December 2018		
	Interest income on non-impaired loans and advances € million	Interest income on impaired loans and advances € million	Total € million
Retail lending	441	278	719
Wholesale lending[1]	351	127	478
Total interest income from customers	792	405	1,197

[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.

	31 December 2019						
	Retail € million	Corporate € million	Wealth Management € million	Global & Capital Markets € million	Other and Elimination center € million	Investment Property € million	Total € million
Lending related activities	7	36	0	6	2	0	51
Mutual funds and assets under management	17	2	18	1	0	0	38
Network activities and other [1]	25	14	0	14	0	0	53
Capital markets	0	4	(3)	2	2	0	5
Total	**49**	**56**	**15**	**23**	**4**	**0**	**147**

	31 December 2018						
	Retail € million	Corporate € million	Wealth Management € million	Global & Capital Markets € million	Other and Elimination center € million	Investment Property € million	Total € million
Lending related activities [1]	6	46	0	5	5	0	62
Mutual funds and assets under management	12	1	16	3	0	0	32
Network activities and other [1]	32	13	0	12	0	0	57
Capital markets	0	4	(1)	29	2	0	34
Total	50	64	15	49	7	0	185

[1] *Including income from credit cards related services and as of 2019 fees from institutional clients previously included in lending related activities. Comparative information has been adjusted accordingly.*

8. Income from non banking services

Income from non banking services includes rental income of € 39 million from real estate properties and other income of € 3 million from IT services provided by the Bank.

9. Dividend income

During the year, the Bank recognized dividend income mainly resulting from shares in subsidiaries amounting to € 142 million (2018: € 123 million).

The analysis of the aforementioned dividends per entity is as follows:

	2019 € million	2018 € million
Eurobank Private Bank Luxembourg S.A.	15	30
ERB Istanbul Holding A.S.	-	30
Eurobank Bulgaria A.D.	-	17
Eurolife ERB Insurance Group Holdings S.A.	11	16
Eurobank Factors S.A.	15	15
ERB New Europe Holding B.V.	100	13
Other	1	2
Total	**142**	123

10. Net trading income and gains less losses from investment securities

	2019 € million	2018 € million
Debt securities of which:	63	78
- measured at FVOCI	61	77
- measured at FVTPL	2	1
Equity securities measured at FVTPL	16	2
Gains/(losses) on derivative financial instruments (hedge accounting)	(8)	(1)
Gains/(losses) on derivative financial instruments (no hedge accounting)	(21)	11
Revaluation on foreign exchange positions	-	9
Total	**50**	99

11. Other income/ (expenses)

	2019 € million	2018 restated € million
Gain/(loss) from change in fair value of investment property (note 2.3.2)	**45**	(3)
Derecognition gain/ (loss) on loans measured at amortised cost [(1)]	**(40)**	4
Fee expense related to the deferred tax credits (note 14)	**(7)**	(7)
Gain/ (loss) on the disposal of subsidiaries (note 23)[(2)]	**2**	(23)
Capital return received from Eurolife ERB Insurance Group Holdings S.A. [(3)]	**-**	25
Gains/(losses) on loans at FVTPL	**2**	1
Other	**(1)**	(4)
Total	**1**	(7)

[(1)] *For the year 2019, it mainly includes derecognition loss resulting from the Pillar transaction (note 20).*
[(2)] *For the year 2018, it includes a refund of € 5 million based on the agreement for the sale of 80% of the Group's insurance operations in August 2016*
[(3)] *It corresponded to the accumulated profits of Eurolife group*

12. Operating expenses

	2019 € million	2018 restated € million
Staff costs	**(360)**	(382)
Administrative expenses	**(163)**	(148)
Contributions to resolution and deposit guarantee funds	**(52)**	(53)
Depreciation of real estate properties and equipment	**(28)**	(24)
Depreciation of right of use assets [(1)]	**(29)**	-
Amortisation of intangible assets	**(21)**	(18)
Operating lease rentals [(1)]	**(1)**	(40)
Total	**(654)**	(665)

[(1)] *Following the adoption of IFRS 16 as of 1 January 2019 (note 2); VAT and other applicable taxes on operating lease rentals are included.*

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

	2019 € million	2018 € million
Wages, salaries and performance remuneration	**(250)**	(269)
Social security costs	**(63)**	(64)
Additional pension and other post employment costs	**(11)**	(12)
Other	**(36)**	(37)
Total	**(360)**	(382)

The average number of employees of the Bank during the year was 7,929 (2018: 8,216). As at 31 December 2019, the number of branches and business/private banking centers of the Bank amounted to 373.

13. Other impairments, restructuring costs and provisions

	2019 **€ million**	2018 restated € million
Impairments and provisions related to shares in subsidiaries (notes 23, 35)	**(27)**	(76)
Impairment and valuation losses on real estate properties (note 2.3.2)	**(39)**	(12)
Other impairment losses and provisions [1]	**(10)**	(3)
Impairment losses/ reversal on bonds (note 22)	**35**	15
Other impairment losses and provisions	**(41)**	(76)
Voluntary exit schemes and other related costs (note 35)	**(59)**	(52)
Other restructuring costs	**(10)**	(6)
Restructuring costs	**(69)**	(58)
Total	**(110)**	(134)

[1] Includes impairment losses on equipment and software, other assets and provisions on litigations and other operational risk events.

For the year ended 31 December 2019, the Bank recognized € 39 million impairment and valuation losses on real estate properties, of which € 31 million relate to the properties' portfolios classified as held for sale (note 30).

For the year ended 31 December 2019, the Bank recognized restructuring costs amounting to € 10 million mainly related with its transformation plan. As at 31 December 2018, the Bank recognized restructuring costs amounting to € 6 million mainly related with the optimization of its lending operations.

14. Income tax

	2019 **€ million**	2018 restated € million
Current tax	**(4)**	(3)
Deferred tax	**16**	(6)
Tax adjustments	**-**	(14)
Total tax (charge)/income	**12**	(23)

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%. As of the year 2019 onwards, according to Law 4646/2019 which was enacted in December 2019 and amended Law 4172/2013, the Greek corporate tax rate for legal entities other than the above credit institutions decreased from 29% to 24% (for the year 2018: 29% corporate tax rate for all legal entities). In addition, according to the aforementioned Law 4646/2019, as of 1 January 2020 the withholding tax rate for dividends distributed, other than intragroup dividends, decreased from 10% to 5%. In particular, the intragroup dividends under certain preconditions are relieved from both income and withholding tax.

Tax certificate and open tax years

The Bank has in principle 6 open tax years (i.e. five years as from the end of the fiscal year within which the relevant tax return should have been submitted). For the open tax years 2014-2015 the Bank was required to obtain an 'Annual Tax Certificate' pursuant to the Law 4174/2013, which is issued after a tax audit is performed by the same statutory auditor or audit firm that audits the annual financial statements. For fiscal years starting from 1 January 2016 onwards, the 'Annual Tax Certificate' is optional, however, the Bank will continue to obtain such certificate.

The tax certificates, which have been obtained by the Bank, are unqualified for the open tax years 2014-2018. For the year ended 31 December 2019, the tax audit from external auditor is 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/aforementioned statute of limitations, 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 2013 (included) has been time-barred for the Bank at 31 December 2019.

Receivables from withholding taxes

Law 4605/2019 (article 93) voted on 29 March 2019 provided clarifications regarding the treatment of the Bank's withholding tax amounts under Law 2238/1994 (amounting to €50 million) in a manner that safeguards these tax amounts by providing for their offsetting with the Bank's corporate income tax whenever this becomes due.

Law 4605/2019 further addresses the treatment of tax receivables of Law 4046/2012 (for years 2010, 2011 and 2012), which provides for a five year settlement of tax withheld on interest from GGBs/Tbills/corporate bonds with the Greek State's guarantee against the Banks' corporate income tax. Law 4605/2019 clarified that any remaining amounts (i.e. not offsettable withholding taxes within the set five year period) will be then offset against all taxes within ten years in equal installments starting from 1 January 2020. As at 31 December 2019, the Bank's receivables subject to the abovementioned law amount to € 13.7 million.

For the year ended 31 December 2018, a provision of € 14 million has been recognized in the income statement against income tax receivables.

In reference to its total uncertain tax positions, the Bank 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 movement on deferred tax is as follows:

	2019 **€ million**	2018 restated € million
Balance at 1 January	**4,901**	4,846
Restatement due to change in accounting policy (note 2.3.2)	**-**	(2)
Balance at 1 January , as restated	**4,901**	4,844
Income statement credit/(charge)	**16**	(6)
Investment securities at FVOCI	**(167)**	64
Cash flow hedges	**2**	(2)
Other	**2**	1
Balance at 31 December	**4,754**	4,901

Deferred tax assets/ (liabilities) are attributable to the following items:

	2019 **€ million**	2018 restated € million
Impairment/valuation relating to loans and accounting write-offs	**1,583**	3,124
PSI+ tax related losses	**1,101**	1,151
Losses from disposals and crystallized write-offs of loans	**1,985**	265
Other impairments/ valuations through the income statement	**202**	248
Unused tax losses	**-**	62
Costs directly attributable to equity transactions	**16**	23
Cash flow hedges	**17**	15
Defined benefit obligations	**13**	12
Real estate properties and equipment (note 2.3.2)	**(35)**	(17)
Investment securities at FVOCI	**(191)**	(24)
Other	**63**	42
Net deferred tax	**4,754**	4,901

In the year ended 31 December 2019, the securitization of certain loan portfolios and a related sale transaction have taken place (projects Cairo and Pillar, note 34), as well as the disposal of other loan portfolios has been completed. The crystallization for tax purposes of the related impairment losses resulted in the significant increase of the deferred tax on the above presented category

"Losses from disposals and crystallised write-offs of loans" against a decrease in the category "Impairment/valuation relating to loans and accounting write-offs".

In the year ended 31 December 2019, the deferred tax on the cumulative Bank's unused tax losses was considered as being non-recoverable due to the securitization of certain loan portfolios for the execution of the acceleration plan for the NPEs reduction and was reversed accordingly.

Deferred income tax (charge)/credit is attributable to the following items:

	2019 € million	2018 restated € million
Impairment/ valuation relating to loans, disposals and write-offs	**180**	85
Unused tax losses	**(62)**	41
Tax deductible PSI+ losses	**(50)**	(50)
Change in fair value and other temporary differences	**(52)**	(82)
Deferred income tax (charge)/credit	**16**	(6)

As at 31 December 2019, the Bank recognized net deferred tax assets amounting to € 4.8 billion as follows:

(a) € 1,583 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;

(b) € 1,101 million refer to losses resulted from the Bank's participation in PSI+ and the Greek's state debt buyback program which are subject to amortization (i.e. 1/30 of losses per year starting from year 2012 onwards) for tax purposes;

(c) € 1,985 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, according to the Greek tax law 4172/2013, as in force;

(d) € 16 million mainly refer to deductible temporary differences related to the (unamortized for tax purposes) costs directly attributable to Bank's share capital increases, subject to 10 years' amortization according to tax legislation in force at the year they have been incurred; and

(e) € 69 million refer to other taxable and deductible temporary differences (i.e. valuation gains/losses, provisions for pensions and other post-retirement benefits, etc.) the majority of which can be utilized in future periods with no specified time limit and according to the applicable tax legislation.

Assessment of the recoverability of deferred tax assets

The recognition of the above presented deferred tax assets is based on management's assessment, as at 31 December 2019, that the Bank will have sufficient future taxable profits, against which the deductible temporary differences 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, the eligibility of carried forward losses for offsetting with future taxable profits and the actual tax results for the year ended 31 December 2019. Additionally, the Bank'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 Bank 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 Bank's performance in combination with the previous years' tax losses caused by one off or non-recurring events.

For the year ended 31 December 2019, the Bank has conducted a deferred tax asset (DTA) recoverability assessment based on a) its three-year Business Plan that was approved by the Board of Directors in March 2019 and provided outlook of its profitability and capital position for the period up to the end of 2021, taking into consideration the progress in the implementation of the steps/transactions indicated in the plan for the accelerated reduction of Non-Performing Exposures - NPEs Acceleration Plan and b) the update of this Plan for the period till the end of 2022 that was submitted to the Board of Directors in December 2019. Both Plans have also been submitted to the Hellenic Financial Stability Fund (HFSF), while the March 2019 Plan has also been submitted to the Single Supervisory Mechanism (SSM).

For the years beyond 2022, the forecast of operating results was based on the management projections considering the growth opportunities of the Greek economy, the banking sector and the Bank itself. The level of the abovementioned projections adopted in the Bank's Business Plan is mainly based on assumptions and estimates regarding (a) the further reduction of its funding cost driven by the gradual repatriation of customer deposits replacing more expensive funding sources as well as the gradual reduction of nominal rates, (b) the lower loan impairment losses as a result of the gradual improvement of the macroeconomic conditions in Greece, the completion of Cairo transaction and all the strategic initiatives for the Acceleration Plan, in line with the NPEs strategy that the Bank has committed to the SSM, (c) the gradual strengthening of the lending activity in Greek operations mainly focused on business loans, (d) the impact from the planned disposal of 80% stake of Financial Planning Services S.A. ('FPS') and the completion of the related Trouble Asset Group carve out, (e) the effectiveness of the continuous cost containment initiatives, and (f) the gradual restoration of traditional commission income, such as asset management and network fees and commissions relating with capital markets and investment banking activities.

The implementation of the Bank's Business Plan largely depends on the risks and uncertainties that stem from the macroeconomic environment in Greece (note 2).

Deferred tax credit against the Greek State and tax regime for loan losses

As at 31 December 2019, pursuant to the Law 4172/2013, as in force, the Bank's eligible DTAs/deferred tax credits (DTCs) against the Greek State amounted to € 3,821 million. 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. In particular, DTCs are accounted for on: (a) the losses from the Private Sector Involvement (PSI) and the Greek State Debt Buyback Program and (b) on the sum of (i) the unamortized part of the crystallized loan losses from write-offs and disposals, (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.

In accordance with the tax regime, in force, the above crystallized tax losses arising from write-offs and disposals on customers' loans are amortised over a twenty-year period, maintaining the DTC status during all this period, while they are disconnected from the accounting write-offs. Accordingly, the recovery of the Bank's deferred tax asset recorded on loans and advances to customers and the regulatory capital structure are safeguarded, contributing substantially to the achievement of the NPEs reduction targets, through the acceleration of write-offs and disposals.

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 credit institutions (i.e. 29%) and the tax rate applicable on 30 June 2015 (i.e. 26%). For the year ended 31 December 2019, an amount of € 6.6 million has been recognized in "Other income/(expenses)".

Income tax reconciliation and unused tax losses

The tax on the Bank's profit before tax differs from the theoretical amount that would arise using the applicable tax rates as follows:

	2019 **€ million**	2018 restated € million
Profit/(loss) before tax	**19**	56
Tax at the applicable tax rate	**(5)**	(16)
Tax effect of:		
- income not subject to tax and non deductible expenses	**32**	24
- tax adjustments	**-**	(14)
- other	**(15)**	(17)
Total tax (charge)/income	**12**	(23)

In the year ended 2019, the above category "other" mainly includes a) € 260 million deferred tax asset (DTA), which was recognised on the Bank's deductible temporary differences arising from the IFRS 9 transition impact following the reassessment of the recoverability of DTA, based on the aforementioned updated business plan, b) € 211 million relating to deferred tax on the Bank's unused tax losses, which has not been recognised or reversed, c) € 37 million DTA, which has not been recognised or reversed relating to the impairment charge against the Bank's investment cost in certain subsidiaries and d) € 18 million referring to a permanent non tax deductible impairment of € 62 million for Grivalia's goodwill (note 28).

As at 31 December 2019, the Bank has not recognised deferred tax asset (DTA) on unused tax losses amounted to € 233 million (2018: € 80 million). The analysis of unrecognized DTA on unused tax losses of the Bank per year of maturity of related tax losses is presented in the table below:

	Unrecognised DTA € million
Year of maturity of unused tax losses	
2021	**22**
2024	**58**
2025	**153**
Total	**233**

15. Cash and balances with central banks

	2019 € million	2018 € million
Cash in hand	**332**	329
Balances with central banks	**2,294**	68
Total	**2,626**	397

The Bank is required to hold a minimum level of deposits (minimum reserve requirement - MRR) with the Bank of Greece (BoG) on an average basis over maintenance periods (i.e. six week periods); these deposits are calculated as 1% of certain Bank's liabilities, mainly customers' deposits, and can be withdrawn at any time, provided that the MRR is met over the determined period of time. As at 31 December 2019, the whole amount of the deposit with the BoG is considered cash equivalent, as its average balance over the maintenance period exceeds the MRR (2018: € 45 million deposits with BoG were considered as mandatory for meeting the MRR and thus were excluded from the cash and cash equivalents).

In September 2019, the European Central Bank (ECB) decided to introduce a two-tier system for eligible credit institutions' reserve remuneration, effective from 30 October 2019, which exempts part of excess liquidity holdings (i.e. reserve holdings in excess of MRR) from negative deposit facility rate. The exempted part is determined as a multiple of an institution's MRR (current multiplier has been set at 6). Following the above development, a significant part of the Bank's excess liquidity was deposited with the BoG as at 31 December 2019.

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:

	2019 € million	2018 € million
Cash and balances with central banks (excluding mandatory and collateral deposits with central banks) (note 15)	**2,626**	352
Due from credit institutions	**146**	138
Securities held for trading	**1**	-
Total	**2,773**	490

Other (income)/losses on investment securities presented in operating activities are analyzed as follows:

	2019 € million	2018 € million
Amortisation of premiums/discounts and accrued interest	**8**	(79)
(Gains)/losses from investment securities	**(74)**	(79)
Dividends	**(1)**	(1)
Total	**(67)**	(159)

As of 1 January 2019, following the adoption of IFRS 16, cash payments for the principal portion of the lease liabilities are classified within financing activities.

Changes in liabilities arising from financing activities

During the year ended 31 December 2019, changes in the Bank's liabilities arising from financing activities, other than lease liabilities (note 41), are attributable to: a) debt issuance amounting to € 255 million (net of issuance costs), b) debt repayment amounting to € 564 million and c) accrued interest and amortisation of debt issuance costs amounting to € 2 million.

17. Due from credit institutions

	2019 € million	2018 € million
Pledged deposits with banks	**3,237**	2,986
Placements and other receivables from banks	**104**	85
Current accounts and settlement balances with banks	**118**	119
Total	**3,459**	3,190

	2019 € million	2018 € million
Included in due from credit institutions were unsubordinated amounts due from:		
-subsidiary undertakings	**752**	1,263

As at 31 December 2019, the pledged deposits with banks mainly include: a) € 673 million cash collaterals for guarantees relating to the lending activities of banking subsidiaries, b) € 2,368 million cash collaterals on risk mitigation contracts for derivative transactions and repurchase agreements (CSAs, GMRAs), c) € 153 million pledged deposits relating to the securitized issues and d) € 43 million cash collateral relating to the sale of the Romanian disposal group (note 23).

The Bank's exposure arising from credit institutions, as categorized by counterparty's geographical region, is presented in the following table:

	2019 € million	2018 € million
Greece	**11**	18
Other European countries	**3,415**	3,156
Other countries	**33**	16
Total	**3,459**	3,190

18. Securities held for trading

	2019 € million	2018 € million
Debt securities (note 5.2.1.3)	**50**	18
Total	**50**	18

19. Derivative financial instruments and hedge accounting

The Bank uses derivative financial instruments both for hedging and non-hedging purposes.

The table below presents the fair values of the Bank'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 Bank's exposure at the reporting date.

	31 December 2019			31 December 2018		
	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	**25,966**	**2,210**	**1,727**	24,648	1,726	1,265
- Interest rate options	**5,617**	**29**	**94**	7,113	35	76
- Cross currency interest rate swaps	**207**	**16**	**16**	286	20	19
- Currency forwards/currency swaps	**4,588**	**17**	**28**	3,106	16	15
- Currency options	**105**	**1**	**1**	214	1	1
- Commodity derivatives	**54**	**2**	**2**	56	7	7
- Credit default swaps	**80**	**1**	**1**	801	4	7
- Other (see below)	**9**	**0**	**0**	10	0	-
		2,276	**1,869**		1,809	1,390
Derivatives designated as fair value hedges						
- Interest rate swaps	**3,149**	**2**	**760**	3,110	1	347
- Cross currency interest rate swaps	**4**	**0**	**1**	4	0	0
		2	**761**		1	347
Derivatives designated as cash flow hedges						
- Interest rate swaps	**127**	**-**	**65**	154	-	58
- Cross currency interest rate swaps	**2,179**	**0**	**29**	3,078	65	101
		0	**94**		65	159
Total derivatives assets/liabilities		**2,278**	**2,724**		1,875	1,896

Other derivative contracts include exchange traded interest futures and warrants.

Information on the fair value measurement and offsetting of derivatives is provided in notes 5.3 and 5.2.1.4, respectively.

The Bank 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 Bank, as well as the relevant accounting treatment are disclosed in note 2.2.3. In particular:

(a) Fair value hedges

The Bank hedges a proportion of its existing interest rate risk resulting from any potential change in the fair value of fixed rate debt securities held or fixed rate loans, denominated both in local and foreign currencies, using interest rate swaps and cross currency interest rate swaps. In 2019, the Bank recognized a loss of € 412 million (2018: € 59.3 million loss) from changes in the carrying amount of the hedging instruments, used as the basis of recognizing hedge ineffectiveness and € 408 million gain (2018: € 59.1 million gain) from changes in the carrying amount of the hedged items attributable to the hedged risk. The amount of hedge ineffectiveness recognized for 2019 in income statement was € 4 million loss (2018: € 0.2 million loss).

(b) Cash flow hedges

The Bank hedges a proportion of its existing interest rate and foreign currency risk resulting from any cash flow variability on floating rate performing customer loans or fixed 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 2019, an amount of € 10 million loss was recognised in other comprehensive income in relation to derivatives designated as cash flow hedges. Furthermore, in 2019, the ineffectiveness recognized in the income statement that arose from cash flow hedges was nil (2018: nil).

In addition, the Bank 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.

The Bank's exposure in derivative financial assets, as categorized by counterparty's geographical region and industry sector, is presented in the following table:

	31 December 2019			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Sovereign	1,545	-	-	1,545
Banks	0	330	289	619
Corporate	113	0	1	114
Total	**1,658**	**330**	**290**	**2,278**

	31 December 2018			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Sovereign	1,210	-	-	1,210
Banks	7	295	302	604
Corporate	60	-	1	61
Total	1,277	295	303	1,875

At 31 December 2019 and 2018, the maturity profile of the nominal amount of the financial instruments designated by the Bank in hedging relationships is presented in the tables below:

	31 December 2019								
	Fair Value Hedges				Cash Flow Hedges				
	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million	1 - 3 months € million	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million
Interest rate swaps	30	491	2,628	3,149	-	-	47	80	127
Cross currency interest rate swaps	-	-	4	4	184	456	1,040	499	2,179
Total	**30**	**491**	**2,632**	**3,153**	**184**	**456**	**1,087**	**579**	**2,306**

	31 December 2018								
	Fair Value Hedges				Cash Flow Hedges				
	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million	1 - 3 months € million	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million
Interest rate swaps	42	525	2,543	3,110	-	27	35	92	154
Cross currency interest rate swaps	-	-	4	4	500	1,343	1,060	175	3,078
Total	42	525	2,547	3,114	500	1,370	1,095	267	3,232

(a) Fair value hedges

The following tables present data relating to the hedged items under fair value hedges for the years ended 31 December 2019 and 2018:

	31 December 2019		
	Carrying amount € million	Accumulated amount of FV hedge adjustments related to the hedged item € million	Change in value as the basis for recognising hedge ineffectiveness € million
Loans and advances to customers	**300**	**15**	**2**
Debt securities AC	**602**	**284**	**68**
Debt securities FVOCI	**3,302**	**385**	**338**
Total	**4,204**	**684**	**408**

	31 December 2018		
	Carrying amount € million	Accumulated amount of FV hedge adjustments on the hedged item € million	Change in value as the basis for recognising hedge ineffectiveness € million
Loans and advances to customers	312	22	(2)
Debt securities AC	726	219	5
Debt securities FVOCI	2,372	47	56
Total	3,410	288	59

At 31 December 2019, the accumulated amount of fair value hedge adjustments remaining in the balance sheet for any items that have ceased to be adjusted for hedging gains and losses was € 166 million (2018: € 183 million).

(b) Cash flow hedges

The cash flow hedge reserves for continuing hedges as at 31 December 2019 were € 37 million loss (2018: € 26 million loss), of which € 3 million gain (2018: € 5 million gain) relates to loans and advances to customers and € 40 million loss to deposits (2018: € 31 million loss).

As at 31 December 2019, the balances remaining in the cash flow hedge reserve from any cash flow hedging relationships for which hedge accounting is no longer applied was € 22 million loss (2018: € 26 million loss).

The reconciliation of the components of Bank's special reserves including cash flow hedges is provided in note 38.

20. Loans and advances to customers

	2019 € million	2018 € million
Loans and advances to customers at amortised cost		
- Gross carrying amount	36,114	37,275
- Impairment allowance	(6,466)	(7,967)
Carrying Amount	**29,648**	29,308
Loans and advances to customers at FVTPL	**50**	46
Total	**29,698**	29,354

The table below presents the carrying amount of loans and advances to customers per business unit and per stage as at 31 December 2019:

	31 December 2019				31 December 2018
	12-month ECL- Stage 1 € million	Lifetime ECL- Stage 2 € million	Lifetime ECL credit-impaired € million	Total amount € million	Total amount € million
Loans and advances to customers at amortised cost					
Mortgage lending:					
- Gross carrying amount	5,878	3,042	3,736	12,656	14,895
- Impairment allowance	(11)	(173)	(1,456)	(1,640)	(2,454)
Carrying Amount	5,867	2,869	2,280	11,016	12,441
Consumer lending:					
- Gross carrying amount	1,351	264	971	2,586	2,862
- Impairment allowance	(28)	(36)	(831)	(895)	(1,043)
Carrying Amount	1,323	228	140	1,691	1,819
Small Business lending:					
- Gross carrying amount	1,873	888	3,133	5,894	5,850
- Impairment allowance	(17)	(96)	(1,481)	(1,594)	(1,742)
Carrying Amount	1,856	792	1,652	4,300	4,108
Wholesale lending [(1),(2)]:					
- Gross carrying amount	9,572	1,276	4,130	14,978	13,668
- Impairment allowance	(49)	(74)	(2,214)	(2,337)	(2,728)
Carrying Amount	9,523	1,202	1,916	12,641	10,940
Total loans and advances to customers at AC					
- Gross carrying amount	18,674	5,470	11,970	36,114	37,275
- Impairment allowance	(105)	(379)	(5,982)	(6,466)	(7,967)
Carrying Amount	**18,569**	**5,091**	**5,988**	**29,648**	29,308
Loans and advances to customers at FVTPL					
Carrying Amount				**50**	46
Total				**29,698**	29,354

[(1)] *Includes € 1.06 billion related to the senior notes of the Pillar securitization, which have been categorized in Stage 1 (see below).*
[(2)] *Includes loans to public sector.*

Transactions on lending portfolio [1]

In June 2019, the Bank announced that it has entered into a binding agreement with an international investor for the sale of 95% of the mezzanine and junior notes of the securitization of a residential mortgage loan portfolio of ca. € 2 billion gross book value comprising primarily NPEs (project Pillar, note 34). The Bank would retain 100% of the senior notes, as well as 5% of the mezzanine and junior notes issued. As at 30 June 2019, the portfolio comprising loans with gross carrying amount of € 1,987 million, which carried an impairment allowance of € 845 million, was classified as held for sale. The net carrying amount of the loan portfolio amounting to € 1,142 million corresponded to its implied valuation based on the nominal value of the senior notes and the sale price of the mezzanine notes, which was subject to the fulfillment of the underlying terms and conditions of the above agreement.

In September 2019, following the completion of the above sale transaction, the Bank ceased to have control over the SPV ('Pillar Finance Designated Activity Company') and de-recognized the underlying loan portfolio in its entirety, on the basis that the Bank transferred the SPV's control and transferred substantially all risk and rewards of the loan portfolio's ownership. In addition, the Bank recognized the retained notes on its balance sheet whereas the consideration was determined at € 102.5 million, of which € 70 million cash and € 32.5 million deferred amount subject to the fulfillment of the terms of the agreement. The final consideration amounted to € 70 million in cash, while the above deferred amount that was previously recognized, has been reversed in the fourth quarter of 2019, as the underlying terms and conditions were not fulfilled. Accordingly, the transaction resulted in a de-recognition loss of € 42.3 million including related costs, which is presented in "other income/ expenses".

The notes of the Pillar securitization that were retained by the Bank are presented within loans and advances to customers, considering that the underlying loan portfolio was originated by the Bank and reflecting how the notes are managed and monitored internally by the Bank. In particular, as at 31 December 2019: a) senior notes of carrying amount of € 1,058.4 million, including accruals and transaction costs (face value: € 1,044 million), were classified in the wholesale loan portfolio measured at amortized cost, b) mezzanine notes of carrying amount of € 3.7 million (face value: € 15.5 million) were classified under the FVTPL category as they failed the SPPI assessment for contractually linked instruments and c) junior notes of issue price € 1 (initial principal amount of € 645 million with issue price € 1) were classified under the FVTPL category as they also failed the SPPI assessment.

Additionally, in the second quarter of 2019, the Bank had received a binding offer for the disposal of non-performing corporate loans. Accordingly, loans with gross carrying amount of € 37 million, which carried an impairment allowance of € 29 million, were classified as held for sale, as their sale was considered highly probable. The transaction was completed in the third quarter of 2019 with no effect in the Bank's income statement.

[1] *Refers to loans that were classified as held for sale and derecognized during the year ended 31 December 2019.*

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 2019												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL- Stage 1 € million	Lifetime ECL- Stage 2 € million	Lifetime ECL credit-impaired € million	12-month ECL- Stage 1 € million	Lifetime ECL- Stage 2 € million	Lifetime ECL credit-impaired € million	12-month ECL- Stage 1 € million	Lifetime ECL- Stage 2 € million	Lifetime ECL credit-impaired € million	12-month ECL- Stage 1 € million	Lifetime ECL- Stage 2 € million	Lifetime ECL credit-impaired € million	Total € million
Impairment allowance as at 1 January	50	97	2,581	30	279	2,145	33	91	919	11	211	1,520	7,967
New loans and advances originated or purchased	14	-	-	0	-	-	6	-	-	1	-	-	21
Transfers between stages													
- to 12-month ECL	13	(12)	(1)	41	(40)	(1)	29	(27)	(2)	84	(83)	(1)	-
- to lifetime ECL	(6)	41	(35)	(2)	119	(117)	(6)	38	(32)	(1)	82	(81)	-
- to lifetime ECL credit-impaired loans	(1)	(6)	7	(2)	(35)	37	(1)	(19)	20	(0)	(24)	24	-
Impact of ECL net remeasurement	(21)	(47)	185	(58)	(143)	360	(31)	(47)	177	(76)	(91)	208	416
Recoveries from written - off loans	-	-	0	-	-	0	-	-	1	-	-	0	1
Loans and advances derecognised/ reclassified as held for sale during the year (1)	-	-	(112)	-	(14)	(830)	(2)	(0)	(0)	(1)	(0)	(0)	(959)
Amounts written off (2)	-	-	(364)	-	-	(119)	-	-	(210)	-	-	(125)	(818)
Unwinding of Discount	-	-	(66)	-	-	(44)	-	-	(24)	-	-	(61)	(195)
Foreign exchange and other movements	(0)	1	19	2	7	25	(0)	0	(18)	(1)	1	(3)	33
Impairment allowance as at 31 December	**49**	**74**	**2,214**	**11**	**173**	**1,456**	**28**	**36**	**831**	**17**	**96**	**1,481**	**6,466**

	31 December 2018												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-impaired € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL credit-impaired € million	Total € million
Impairment allowance as at 1 January	56	147	2,903	23	299	2,196	38	115	1,959	15	203	1,950	9,904
Transfer of ECL allowance [3]	(2)	(6)	(101)	-	-	-	(7)	(0)	(0)	(5)	(0)	-	(121)
New loans and advances originated or purchased	8	-	-	0	-	-	7	-	-	1	-	-	16
Transfers between stages													
- to 12-month ECL	5	(4)	(1)	29	(27)	(2)	37	(33)	(4)	21	(19)	(2)	-
- to lifetime ECL not credit-impaired loans	(0)	13	(13)	(1)	167	(166)	(3)	56	(53)	(2)	88	(86)	-
- to lifetime ECL credit-impaired loans	(0)	(15)	15	(1)	(50)	51	(4)	(31)	35	(0)	(33)	33	-
Impact of ECL net remeasurement	(3)	(44)	266	(22)	(109)	173	(35)	(13)	246	(20)	(27)	121	533
Recoveries from written - off loans	-	-	-	-	-	-	-	-	2	-	-	-	2
Loans and advances derecognised/reclassified as held for sale during the year	-	-	(123)	-	-	(0)	(0)	(0)	(937)	(0)	(0)	(0)	(1,060)
Amounts written off [2]	-	-	(329)	-	-	(53)	-	-	(256)	-	-	(423)	(1,061)
Unwinding of Discount	-	-	(82)	-	-	(60)	-	-	(41)	-	-	(68)	(251)
Foreign exchange and other movements	(14)	6	46	2	(1)	6	(0)	(3)	(32)	1	(1)	(5)	5
Impairment allowance as at 31 December	50	97	2,581	30	279	2,145	33	91	919	11	211	1,520	7,967

[1] *It represents the impairment allowance of loans derecognized during the year due to a) securitization/ sale transactions (note 20) and b) substantial modifications of the loans' contractual terms and those that have been reclassified as held for sale during the year (note 30).*

[2] *The contractual amount outstanding on lending exposures that were written off during the year ended 31 December 2019 and that are still subject to enforcement activity is € 786 million (2018: € 1,010 million).*

[3] *As of 1 January 2018, the impairment allowance for credit related commitments (off balance sheet items) is monitored separately from the impairment allowance on loans and advances to customers and accordingly is presented within other liabilities (note 35).*

The impairment losses relating to loans and advances to customers recognized in the Bank's income statement for the year ended 31 December 2019 amounted to € 529 million (2018: € 606 million) and are analyzed as follows:

	31 December 2019 € million	31 December 2018 € million
Impairment loss on loans and advances to customers	(437)	(549)
Modification loss on loans and advances to customers	(63)	(68)
Impairment (loss)/ reversal for credit related commitments	(29)	11
Total	(529)	(606)

The critical accounting estimates and judgments that are made by the Bank's Management in assessing the impairment losses on loans and advances to customers are evaluated constantly, particularly in circumstances of economic uncertainty, based on the latest available information and expectations of future events that are considered reasonable, as described in note 3.1.

22. Investment securities

	2019 € million	2018 € million
Investment securities at FVOCI	5,443	5,578
Investment securities at amortized cost	1,042	941
Investment securities at FVTPL	95	78
Total	6,580	6,597

22.1 Movement of investment securities

	31 December 2019					
	Investment securities at FVOCI		Investment securities at amortised cost		Investment securities at FVTPL	
	12-month ECL-Stage 1 € million	Lifetime ECL - Stage 2 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	€ million	Total € million
Gross carrying amount at 1 January	5,557	21	217	754	78	6,627
Additions, net of disposals and redemptions	(1,104)	-	(0)	-	(0)	(1,104)
Transfers between stages	21	(21)	754	(754)	-	-
Net gains/(losses) from changes in fair value for the year	980	-	-	-	17	997
Amortisation of premiums/discounts and interest	(16)	-	8	-	(0)	(8)
Changes in fair value due to hedging	-	-	65	-	-	65
Exchange adjustments and other movements	5	-	-	-	0	5
Gross carrying amount at 31 December	5,443	-	1,044	-	95	6,582
Impairment allowance	-	-	(2)	-	-	(2)
Net carrying amount at 31 December	5,443	-	1,042	-	95	6,580

	31 December 2018					
	Investment securities at FVOCI		Investment securities at amortised cost		Investment securities at FVTPL	
	12-month ECL- Stage 1	Lifetime ECL- Stage 2	12-month ECL- Stage 1	Lifetime ECL- Stage 2		Total
	€ million	€ million	€ million	€ million	€ million	€ million
Gross carrying amount at 1 January	5,388	20	302	746	162	6,618
Additions, net of disposals and redemptions	199	(2)	(84)	-	(91)	22
Transfers between stages	(2)	2	-	-	-	-
Net gains/(losses) from changes in fair value for	(112)	1	-	-	2	(109)
Amortisation of premiums/discounts and	77	0	(1)	3	0	79
Changes in fair value due to hedging						
Changes in fair value due to hedging	-	-	(2)	6	-	4
Exchange adjustments and other						
Exchange adjustments and other	7	-	2	(1)	5	13
Gross carrying amount at 31 December	5,557	21	217	754	78	6,627
Impairment allowance	-	-	(2)	(28)	-	(30)
Net carrying amount at 31 December	5,557	21	215	726	78	6,597

22.2 Movement of ECL

	31 December 2019			31 December 2018		
	Measured at amortised cost	**Measured at FVOCI**	**Total**	Measured at amortised cost	Measured at FVOCI	Total
	€ million	**€ million**	**€ million**	€ million	€ million	€ million
Balance at 1 January	**30**	**16**	**46**	55	12	67
New financial assets purchased	**0**	**4**	**4**	0	11	11
- of which 12-month ECL - Stage 1	*0*	*4*	*4*	-	*11*	*11*
Remeasurement due to transfers from lifetime ECL-Stage 2 to 12-month ECL- Stage 1	**(28)**	**(1)**	**(29)**	-	-	-
Remeasurement due to change in ECL risk parameters	**0**	**(9)**	**(9)**	(25)	(0)	(25)
- of which 12-month ECL - Stage 1	*0*	*(9)*	*(9)*	*(0)*	*(0)*	*(0)*
- of which lifetime ECL - Stage 2	-	-	-	(25)	(0)	(25)
Financial assets disposed during the year	**(0)**	**(2)**	**(2)**	-	(6)	(6)
- of which 12-month ECL - Stage 1	*(0)*	*(2)*	*(2)*	-	*(6)*	*(6)*
Financial assets redeemed during the year	**(0)**	**(0)**	**(0)**	(0)	(1)	(1)
Foreign exchange and other movements	**-**	**0**	**0**	-	-	-
Balance as at 31 December	**2**	**8**	**10**	30	16	46

During the year ended 31 December 2019, the impairment allowance of the investment securities of the Bank decreased by € 36 million, mainly due to the improvement of the credit quality of the Hellenic Republic as depicted in the markets, which resulted in the transfer of Greek government bonds measured at amortised cost from lifetime ECL - Stage 2 to 12-month ECL – Stage1.

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:

	2019 € million	2018 € million
Balance at 1 January under IAS 39	**53**	206
Impact of adopting IFRS 9 at 1 January 2018 (note 2.3.3)	**-**	13
Balance at 1 January under IFRS 9	**53**	219
Net gains/(losses) from changes in fair value	**980**	(111)
Tax (expense)/benefit	**(284)**	30
	696	(81)
Net (gains)/losses transferred to net profit on disposal	**(60)**	(78)
ECL transferred to net profit	**(6)**	11
Tax (expense)/benefit on net (gains)/losses transferred to net profit on disposal	**17**	22
Tax (expense)/benefit on ECL transferred to net profit	**2**	(3)
	(47)	(48)
Net (gains)/losses transferred to net profit from fair value hedges	**(338)**	(52)
Tax (expense)/benefit	**98**	15
	(240)	(37)
Balance at 31 December	**462**	53

23. Shares in subsidiaries

The following is a listing of the Bank's subsidiaries at 31 December 2019:

Name	Note	Percentage holding	Country of incorporation	Line of business
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 S.A. (3)		100.00	Greece	Mutual fund and asset management
Eurobank Equities Investment Firm Single Member S.A. (3)		100.00	Greece	Capital markets and advisory services
Eurobank Ergasias Leasing Single Member S.A. (3)		100.00	Greece	Leasing
Eurobank Factors Single Member S.A. (3)		100.00	Greece	Factoring
Eurobank FPS Loans and Credits Claim Management S.A.	n	100.00	Greece	Loans and Credits Claim Management
Hellenic Post Credit S.A.		50.00	Greece	Credit card management and other services
Herald Greece Single Member Real Estate development and services S.A. 1 (3)		100.00	Greece	Real estate
Herald Greece Single Member Real Estate development and services S.A. 2 (3)	o	100.00	Greece	Real estate
Standard Single Member Real Estate S.A. (3)		100.00	Greece	Real estate
Cloud Hellas Single Member Ktimatiki S.A. (3)	d	100.00	Greece	Real estate
Piraeus Port Plaza 1 Development S.A.	d	51.96	Greece	Real estate
Cairo Estate I Single Member S.A.	g	100.00	Greece	Real estate
Cairo Estate II Single Member S.A.	g	100.00	Greece	Real estate
Cairo Estate III Single Member S.A.	g	100.00	Greece	Real estate
Real Estate Management Single Member S.A.	g	100.00	Greece	Real estate services
Anchor Hellenic Investment Holding Single Member S.A.	h	100.00	Greece	Real estate
Vouliagmeni Residence Single Member S.A.	f	100.00	Greece	Real estate
Athinaiki Estate Investments Single Member S.A.	i	100.00	Greece	Real estate
Eurobank Bulgaria A.D.		56.14	Bulgaria	Banking
ERB Hellas (Cayman Islands) Ltd		100.00	Cayman Islands	Special purpose financing vehicle
Berberis Investments Ltd		100.00	Channel Islands	Holding company
ERB Hellas Funding Ltd		100.00	Channel Islands	Special purpose financing vehicle
NEU Property Holdings Ltd		100.00	Cyprus	Holding company
Staynia Holdings Ltd	d	100.00	Cyprus	Holding company
Eurobank Private Bank Luxembourg S.A.		100.00	Luxembourg	Banking
Eurobank Fund Management Company (Luxembourg) S.A.		99.99	Luxembourg	Fund management
Eurobank Holding (Luxembourg) S.A.		100.00	Luxembourg	Holding company
Grivalia New Europe S.A. (2)	m	100.00	Luxembourg	Real estate
ERB New Europe Funding B.V.		100.00	Netherlands	Finance company
ERB New Europe Holding B.V.		100.00	Netherlands	Holding company
ERB IT Shared Services S.A. (1)		1.10	Romania	Informatics data processing
Eurobank Finance S.A. (1) (2)		19.65	Romania	Investment banking
Eliade Tower S.A.	d	99.99	Romania	Real estate
Retail Development S.A.	d	99.99	Romania	Real estate
Seferco Development S.A.	d	99.99	Romania	Real estate
Eurobank A.D. Beograd		55.80	Serbia	Banking
ERB Leasing A.D. Beograd (1) (2)		17.51	Serbia	Leasing
Reco Real Property A.D. Beograd	d	100.00	Serbia	Real estate
ERB Istanbul Holding A.S.		100.00	Turkey	Holding company
ERB Hellas Plc		99.99	United Kingdom	Special purpose financing vehicle
Anaptyxi SME I Plc (2)		-	United Kingdom	Special purpose financing vehicle
Karta II Plc		-	United Kingdom	Special purpose financing vehicle
Themeleion II Mortgage Finance Plc (2)		-	United Kingdom	Special purpose financing vehicle
Themeleion III Mortgage Finance Plc (2)		-	United Kingdom	Special purpose financing vehicle
Themeleion IV Mortgage Finance Plc (2)		-	United Kingdom	Special purpose financing vehicle
Themeleion Mortgage Finance Plc (2)		-	United Kingdom	Special purpose financing vehicle
Tegea Plc (2)		-	United Kingdom	Special purpose financing vehicle
Maximus Hellas Designated Activity Company		-	Ireland	Special purpose financing vehicle
Astarti Designated Activity Company		-	Ireland	Special purpose financing vehicle
Cairo No. 1 Finance Designated Activity Company	g	-	Ireland	Special purpose financing vehicle
Cairo No. 2 Finance Designated Activity Company	g	-	Ireland	Special purpose financing vehicle
Cairo No. 3 Finance Designated Activity Company	g	-	Ireland	Special purpose financing vehicle

(1) *Not direct control by the Bank.*

(2) *Entity under liquidation at 31 December 2019.*

(3) *In the context of the Greek Law 4548/2018, the legal name of the company has been amended or is in the process of being amended with the inclusion of the term "Single member".*

In addition, the following entities are controlled by the Bank:

(i) Holding and other entities of the Bank's special purpose financing vehicles: (a) Themeleion III Holdings Ltd, Themeleion IV Holdings Ltd, Themeleion V Mortgage Finance Plc, Themeleion VI Mortgage Finance Plc, Anaptyxi APC Ltd, Byzantium II Finance Plc, Tegea Holdings Ltd and Anaptyxi SME I Holdings Ltd, which are under liquidation and (b) Karta II Holdings Ltd.
(ii) Dormant entity: Enalios Real Estate Development S.A.
(iii) Entities controlled by the Bank pursuant to the terms of the relevant share pledge agreements: Finas S.A., Rovinvest S.A., Provet S.A. and Promivet S.A.

(a) Bancpost S.A. and ERB Leasing IFN S.A., Romania

In April 2018, the sale of the Romanian disposal group (Bancpost S.A., ERB Retail Services IFN S.A. and ERB Leasing IFN S.A.) was completed. Accordingly, a loss of € 28 million was recognized in "other income/(expenses" for the year ended 31 December 2018, which included a provision of € 14.1 million for the completion statements of the Romanian disposal group, which were finalized in the third quarter of 2019. For the year ended 2019 a provision for transaction costs has been reversed amounting to € 1.3 million (€ 0.9 million after tax).

According to the relevant Sale Purchase Agreement (SPA), executed between Eurobank Group and Banca Transilvania (BT) , there are also specific indemnity clauses based on which the Purchaser could claim specific amounts, subject to certain limitations on total claims, including those for: a) open (non-expired) taxable periods of Bancpost S.A. until the completion of the transaction (see below "Tax audit") and b) losses incurred from claims made against the Purchaser or Bancpost S.A. in relation to a certain loan portfolio (see below ANPC case).

Tax audit

According to the tax audit assessment communicated to Bancpost S.A. within July 2018, following the completion of the tax audit for the years 2011-2015, the additional taxes to be paid amounted in total to € 40 million, approximately.

The Group is in close cooperation with BT, which is in the process of challenging the tax audit assessment in the competent courts.

In respect of the above, in the year ended 31 December 2019, the Bank has recognized an additional provision of € 5 million (€ 3.6 million after tax), while the accumulated provisions, which have been recognized up to 31 December 2019 amount to € 20 million.

Romanian National Authority for Consumer Protection (ANPC)

In the second half of 2018, the Romanian National Authority for Consumer Protection (ANPC) imposed three fines totaling € 72 thousand on Bancpost S.A. in connection with complaints raised by certain Bancpost S.A. lending clients, related to portfolios of performing loans which were assigned by Bancpost S.A. to ERB New Europe Funding II B.V. (an entity in the Netherlands controlled by Eurobank) starting in 2008. Furthermore, the ANPC concluded that any payments (such as interests, fees, penalties) by the consumers in relation to all the aforementioned loans and for a period of ten years should be reimbursed by Bancpost S.A.

In the year ended 31 December 2019, the first instance court admitted BT's complaints (as legal successor to Bancpost S.A.) against ANPC in all three aforementioned cases, ruling that the relevant penalties and repayment obligations imposed on Bancpost S.A. are cancelled. ANPC appealed against the first instance rulings in all three cases. The second instance court rejected the ANPC appeal in one of the aforementioned cases and two cases are still pending in appeal.

Further information in relation to the sale of Bancpost S.A. and ERB Leasing IFN S.A. is provided in note 25 of the financial statements for the year ended 31 December 2018.

(b) Eurobank Property Services S.A., Greece

In January 2019, the Bank and Cerved Credit Management Group S.r.l. (Cerved) signed a binding agreement in the context of which Cerved would acquire the entire share capital of Eurobank Property Services S.A. in Greece (EPS) and its subsidiaries Eurobank Property Services S.A. in Romania and ERB Property Services d.o.o. Beograd in Serbia from Eurobank. EPS Greece has also been appointed as real estate servicer for Eurobank for the next five years with respect to all real estate valuation activities and other services. The transaction was completed in April 2019 via the acquisition from Cerved, for a consideration of € 8 million, of the entire share capital of EPS with a resulting gain of € 6.4 million recognized in "other income/expenses". Further consideration of up to € 5 million in the form of earn – out will be due upon reaching certain economic results and conditions in the timeframe until

2023. The transaction was in line with the Bank's strategy to focus on its core operations, adopting an outsourcing business model in relation to real estate services.

(c) Modern Hoteling, Greece

In February 2019, the Bank signed a pre- agreement with third party for the disposal of its participation (100%) in Modern Hoteling. Based on the above agreement, a share capital increase took place in March 2019, which was covered by the purchaser in order for the company's debt to be fully repaid to the Bank. Upon completion of the share capital increase, the Bank's participation in the company decreased to 41% and based on the relevant share purchase agreement signed in the same month, the disposal of the company was completed, with a resulting gain of € 1.7 million recognized in "other income/expenses".

(d) Grivalia Properties REIC S.A., subsidiaries

On 5 April 2019, the General Meetings of the Shareholders of Eurobank and Grivalia Properties REIC approved the merger of the two companies. As of that date, the Bank also obtained control of Grivalia subsidiaries. Further information in relation to the merger of the two companies is provided in note 24.

(e) Eurobank Bulgaria A.D., Bulgaria

In June 2019, the acquisition of Piraeus Bank Bulgaria A.D. ("PBB"), a subsidiary of Piraeus Bank, by Eurobank's subsidiary in Bulgaria, Eurobank Bulgaria A.D. ("Postbank") was completed, after all necessary approvals from the competent authorities were obtained. In particular, Postbank acquired 99.9819% of the shares and voting rights of PBB and, accordingly, indirect participation in PBB's wholly-owned subsidiary Piraeus Insurance Brokerage EOOD. In the fourth quarter of 2019, the mergers of i) PBB with Postbank and ii) Piraeus Insurance Brokerage EOOD with ERB Leasing Bulgaria EAD, by absorption of the former by the latter, were completed. Further information about the Transaction is provided in note 23.3 of the consolidated financial statements for the year ended 31 December 2019.

(f) Vouliagmeni Residence Single Member S.A., Greece

In July 2019, the Bank established the wholly owned subsidiary Vouliagmeni Residence Single Member S.A., a real estate company operating in Greece.

In the year ended 31 December 2019, in the context of the management of the Bank's non performing exposures (NPEs), the following wholly owned subsidiaries were established:

(g) Special purpose financing vehicles for the securitization of Bank loans and related real estate companies

- Cairo No. 1 Finance Designated Activity Company, Cairo No. 2 Finance Designated Activity Company, Cairo No. 3 Finance Designated Activity Company and Pillar Finance Designated Activity Company, Ireland (note 34).

- Cairo Estate I Single Member S.A., Cairo Estate II Single Member S.A., Cairo Estate III Single Member S.A., Pillar Estate Single Member S.A. and Real Estate Management Single Member S.A., Greece

Following the completion of the Pillar transaction (note 20), the Bank has no control over the special purpose financing vehicle Pillar Finance Designated Activity Company and the related real estate company Pillar Estate Single Member S.A.

(h) Anchor Hellenic Investment Holding Single Member S.A., real estate company, Greece

In the third quarter of 2019, Anchor Hellenic Investment Holding Single Member S.A. acquired the whole of the issued share capital and voting rights of Rhodes Marines S.A. In the same period, the disposal of the holding in Rhodes Marines S.A. along with the Bank's lending exposures to the company was completed, with no effect in the Bank's income statement.

(i) Athinaiki Estate Investments Single Member S.A., real estate company, Greece

(j) CEH Balkan Holdings Ltd and Chamia Enterprises Company Ltd, Cyprus

In 2018, the liquidation of the companies was decided. In the third quarter of 2019, the distribution of the companies' surplus assets to the Bank was completed. The dissolution of Chamia Enterprises Company Ltd and of CEH Balkan Holdings Ltd was completed in December 2019 and January 2020, respectively.

(k) ERB Leasing Bulgaria EAD, Bulgaria

In the third quarter of 2019, the Bank disposed its participation in ERB Leasing Bulgaria EAD to Eurobank Bulgaria A.D., resulting to the recognition of gain of € 1 million.

(l) Bulgarian Retail Services A.D., Bulgaria

In September 2019, the share capital of Bulgarian Retail Services A.D., increased by € 38 million with the issuance of new shares fully subscribed by the Bank. Accordingly, the Bank's direct participation to the company amounted to 99.07%.In November 2019, the Bank disposed its participation in Bulgarian Retail Services A.D.to Eurobank Bulgaria A.D., resulting to the recognition of loss of € 3.3 million.

(m) Grivalia New Europe S.A., Luxembourg

In the fourth quarter of 2019, the liquidation of the company was decided.

(n) Eurobank FPS Loans and Credits Claim Management S.A., Greece

In December 2019, following the decrease of the share capital of the company by € 7 million, the Bank recognized a receivable of an equivalent amount. In the context of the binding agreements that Eurobank has entered into with doValue in December 2019, the Bank will sell 80% of its subsidiary Eurobank FPS Loans and Credits Claim Management S.A. - project "Europe". Therefore, as of 31 December 2019 the company was classified as held for sale. Further information is provided in note 30.

(o) Herald Greece Single Member Real Estate development and services S.A. 2, Greece

In December 2019, the share capital of the company increased by € 2.5 million.

24. Merger of Eurobank with Grivalia

On 26 November 2018, the Boards of Directors ("BoD") of Eurobank Ergasias S.A. ("Eurobank") and Grivalia Properties REIC ("Grivalia") announced that they unanimously decided to commence the merger of the two companies by absorption of Grivalia by Eurobank (the "Merger"). Grivalia was a real estate investment company under Law 2778/1999, as in force, incorporated in Greece. The business of Grivalia along with its subsidiaries (Grivalia group, note 23) and its joint ventures (note 25) was the acquisition, management and leasing out of investment property portfolio located in Greece, in Central Eastern Europe and in Central America.

On 7 February 2019, the European Commission (DG Competition) decided that the Merger is in line with Eurobank's commitments and State Aid rules considering that the strengthening of its capital base through the Merger will enable Eurobank to significantly reduce its non-performing loans in the near future.

On 22 February 2019, the BoD of Eurobank and Grivalia approved the Draft Merger Agreement for the absorption of Grivalia by Eurobank according to the provisions of Greek laws 2166/1993 and 2515/1997, as in force, as well as the applicable Company Law. The proposed share exchange ratio was 15.80000000414930 new Eurobank ordinary registered shares for every 1 Grivalia ordinary registered share, while Eurobank shareholders retain the number of Eurobank ordinary shares they held before the Merger. Accordingly, with respect to the new share capital of Eurobank, 2,185,998,765 shares are allocated to the shareholders of Eurobank and 1,523,163,087 to the shareholders of Grivalia.

On 5 April 2019, the Extraordinary General Meeting of the shareholders of Eurobank resolved, among others (a) the approval of the Merger of the Bank with Grivalia by absorption of the latter by the former, (b) the approval of the Draft Merger Agreement, as it was approved by the BoD of the merging companies and (c) the increase of the share capital of the Bank by € 197 million (note 37).

The Merger was accounted for as a business combination using the purchase method of accounting. The date on which the Shareholders General Meetings of both companies approved the merger, i.e. 5 April 2019 has been determined as the acquisition date as it is considered the date that Eurobank obtained control of Grivalia.

The consideration of the transaction amounting to € 1,094.4 million has been calculated as the fair value of the 1,523,163,087 Eurobank new ordinary shares with reference to Eurobank's share market price on the acquisition date (i.e. € 0.7185).

Upon acquisition, the fair values of the assets acquired and liabilities assumed are presented in the table below:

	Fair value € million
Assets	
Due from credit institutions [(1)]	**20**
Shares in subsidiary undertakings	**141**
Property, plant and equipment and investment property	**843**
Other assets [(2)]	**84**
Total assets	**1,088**
Liabilities	
Due to credit institutions	**191**
Other liabilities	**25**
Total liabilities	**216**
Shareholders' equity	**872**
Total equity and liabilities	**1,088**

[(1)] *It includes € 1 million cash and cash equivalents.*

[(2)] *It mainly includes investments in associates and joint ventures amounting to € 60 million as well as trade and other receivables of gross carrying amount of € 26 million for which a provision of € 1,7 million has been recognized.*

The difference between: (a) the total consideration of € 1,094.4 million, and (b) the net identifiable assets acquired (fair values of assets and liabilities as stated above) of € 872 million, results in the recognition of a goodwill of € 222 million, which was impaired by € 62 million in the year ended 31 December 2019 (note 28). This is not deductible for income tax purposes and is included in intangible assets. Following the Merger, Eurobank's equity increased by € 1,087 million net of € 7 million related costs. The Merger enhances Eurobank's capital position (note 4) and its earnings capacity, which in turn enables the acceleration of its NPEs reduction plan. In addition, through the Merger, the Bank is allowed to deploy Grivalia's best in class real estate management skills to the Bank's real estate assets, in particular to its repossessed assets, which is critical for the management of NPEs.

The results of Grivalia operations are incorporated in the Bank's financial statements prospectively, as of 1 April 2019. If the acquisition had occurred on 1 January 2019, the Grivalia would have contributed net profit of ca. € 7 million to the Bank for the period from 1 January 2019 up to 31 March 2019. As of 1 April 2019, the revenues from the investment property portfolio acquired from Grivalia are presented within the line "Income from non banking services" of the income statement. The Merger was approved on 17 May 2019 by the Ministry of Finance and Development and was registered, on the same day, in the General Commercial Registry. The trading of the 1,523,163,087 new common voting shares of nominal value € 0.23 each was initiated at Athens Exchange on 23 May 2019.

As a result of the Merger, Fairfax group, which before the Merger held 18.40% and 54.02% in Eurobank and Grivalia, respectively, became the largest shareholder in the merged entity with a 31.27% shareholding as at 31 December 2019. Fairfax obtained the required regulatory approvals in relation to the aforementioned increase of its shareholding in December 2019 (note 45).

Agreement with the Real estate management company

On 22 February 2019, the Board of Directors of Eurobank also approved the upcoming agreement (SLA), pursuant to article 100 of Greek Law 4548/2018, of the Bank with the company to be incorporated under the name "Grivalia Management Company SA" (the "Company"). The Company was established in March 2019 and is a related party to Eurobank, since a member of the Bank's Board of Directors holds the majority (70%) of the shares of the Company and is an executive member of the board of directors of the Company.

The Bank has concluded a 10-year advisory services agreement with Grivalia Management Company S.A. for the combined real estate portfolio of the merged entities, that came into force following the completion of the Merger. The related services assigned to the Company under this agreement mainly refer to advisory services relating to the acquisition, transfer, lease, management development and strategic planning of the management of real estate assets, including the preparation of the annual budget and the supervision of Eurobank's contractors and advisors. Following a specific mandate, the Company will also undertake certain implementation actions. According to the SLA, total fees that will be charged by the Company based on cost and performance criteria, including a minimum service fee of € 9.35 million for the combined own used and investment property portfolio and a fee related to repossessed assets, shall not exceed € 12 million (excluding VAT) per annum.

Further information on the above transactions is provided in the regulatory announcements on the Bank's website dated 26 November 2018 and 8 February, 25 February, 1 March, 5 April and 17 May 2019.

25. Investment in associates and joint ventures

As at 31 December 2019, the carrying amount of the Bank's investments in associates and joint ventures amounted to € 100 million (2018: € 37 million).

The following is the listing of the Bank's associates and joint ventures as at 31 December 2019:

Name	Note	Country of incorporation	Line of business	Percentage Holding
Femion Ltd		Cyprus	Special purpose investment vehicle	66.45
Tefin S.A. (1)		Greece	Dealership of vehicles and machinery	50.00
Sinda Enterprises Company Ltd		Cyprus	Special purpose investment vehicle	48.00
Alpha Investment Property Kefalariou S.A.		Greece	Real estate	41.67
Global Finance S.A. (2)		Greece	Investment financing	9.91
Famar S.A. (1)		Luxembourg	Holding company	23.55
Odyssey GP S.a.r.l.		Luxembourg	Special purpose investment vehicle	20.00
Eurolife ERB Insurance Group Holdings S.A. (2)		Greece	Holding company	20.00
Alpha Investment Property Commercial Stores S.A.		Greece	Real estate	30.00
Peirga Kythnou P.C.	a	Greece	Real estate	50.00
Piraeus Port Plaza 2	c	Greece	Real estate	49.00
Piraeus Port Plaza 3	c	Greece	Real estate	49.00
Value Touristiki S.A.	c	Greece	Real estate	49.00
Grivalia Hospitality S.A. (3)	c	Luxembourg	Real estate	25.00
Information Systems Impact S.A	d	Greece	Information systems services	15.00

(1) Entity under liquidation at 31 December 2019.

(2) Eurolife Insurance group (Eurolife ERB Insurance Group Holdings S.A. and its subsidiaries) and Global Finance group (Global Finance S.A. and its subsidiaries) are considered as Bank's associates.

(3) Grivalia Hospitality group (Grivalia Hospitality S.A. and its subsidiaries) is considered as Bank's joint venture.

(a) Peirga Kythnou P.C., Greece

In February 2019, in the context of a debt restructuring, Eurobank and Piraeus Bank S.A. established Peirga Kythnou S.A., to operate as a real estate company in Greece. Based on the contractual terms of the shareholders' agreements and the substance of the arrangement, Peirga Kythnou S.A. is accounted as a joint venture of the Bank.

(b) Unisoft S.A., Greece

In March 2019, the Bank increased its participation in Unisoft S.A from 18.02% to 29.06%, as a result of the share capital increase performed in the context of the company's debt restructuring scheme. In the second quarter of 2019, the disposal of the holding in the company was completed.

(c) Grivalia Properties REIC S.A., joint ventures

On 5 April 2019, the General Meetings of the Shareholders of Eurobank and Grivalia Properties REIC approved the merger of the two companies. As of that date, the Bank also obtained control of Grivalia group and consequently joint control to its joint ventures. Further information in relation to the merger of the two companies is provided in note 24.

(d) Information Systems Impact S.A., Greece

In November 2019, the Bank acquired 15% of the shares and voting rights of Information Systems Impact S.A. Based on the terms of the shareholders' agreement, the company is accounted as an associate of the Bank.

26. Property, plant and equipment

	31 December 2019				
	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	**341**	**130**	**373**	**-**	**844**
Recognition of RoU on initial application of IFRS 16	**-**	**-**	**-**	**280**	**280**
Arising from merger (note 24) [2]	**198**	**-**	**-**	**(111)**	**87**
Transfers	**4**	**(0)**	**1**	**-**	**5**
Additions	**13**	**7**	**15**	**20**	**55**
Disposals, write-offs & adjustment to RoU [3]	**(1)**	**(1)**	**(5)**	**(43)**	**(50)**
Held for sale (note 30)	**(14)**	**-**	**-**	**-**	**(14)**
Balance at 31 December	**541**	**136**	**384**	**146**	**1,207**
Accumulated depreciation:					
Balance at 1 January	**(159)**	**(113)**	**(328)**	**-**	**(600)**
Arising from merger (note 24)	**-**	**-**	**-**	**3**	**3**
Transfers	**(0)**	**-**	**-**	**-**	**(0)**
Disposals, write-offs and adjustment to RoU [3]	**1**	**2**	**5**	**-**	**8**
Charge for the year	**(11)**	**(4)**	**(12)**	**(29)**	**(56)**
Held for sale (note 30)	**2**	**-**	**-**	**-**	**2**
Balance at 31 December	**(167)**	**(115)**	**(335)**	**(26)**	**(643)**
Net book value at 31 December	**374**	**21**	**49**	**120**	**564**

[1] Following the adoption of IFRS 16 as of 1 January 2019 (note 2.3.1). The respective lease liabilities are presented in "other liabilities" (note 35).
[2] Following the merger with Grivalia (note 24), € 114 million right of use assets initially recognised upon transition to IFRS 16 were derecognized in the second quarter of 2019, as the related properties became own used assets of the Bank.
[3] 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 Bank's housing needs, including the merger with Grivalia.

As at 31 December 2019, the RoU assets amounting to € 120 million refer to leased office and branch premises, ATM locations, residential properties of € 117 million and motor vehicles of € 3 million.

	31 December 2018			
	Land, buildings, leasehold improvements € million	Furniture, equipment, motor vehicles € million	Computer hardware, software € million	Total € million
Cost:				
Balance at 1 January	356	121	330	807
Arising from merger	11	4	18	33
Transfers	(20)	-	17	(3)
Additions	10	7	12	29
Disposals and write-offs	(16)	(2)	(4)	(22)
Balance at 31 December	341	130	373	844
Accumulated depreciation:				
Balance at 1 January	(165)	(107)	(298)	(570)
Arising from merger	(4)	(4)	(18)	(26)
Transfers	4	-	(7)	(3)
Disposals and write-offs	15	2	5	22
Charge for the year	(9)	(4)	(10)	(23)
Balance at 31 December	(159)	(113)	(328)	(600)
Net book value at 31 December	182	17	45	244

Leasehold improvements relate to premises occupied by the Bank for its own activities.

27. Investment property

In the fourth quarter of 2019, the Bank has elected to change its accounting policy regarding the measurement of Investment Property from cost model to fair value model according to IAS 40 “Investment property”. In accordance with IAS 8 “Accounting policies, changes in accounting estimates and errors”, the above change in the Bank’s accounting policy on Investment Property was applied retrospectively, consequently comparatives presented below have been restated. Refer also to note 2.3.2.

The movement of investment property (fair value) is as follows:

	2019 € million	2018 restated € million
Balance at beginning of period	**39**	22
Restatement due to change in accounting policy (note 2.3.2)	**-**	7
Merger with Grivalia (note 24)	**645**	-
Other transfers	**(4)**	16
Additions	**17**	0
Disposals	**(1)**	(3)
Net gain / (loss) from fair values adjustments	**45**	(3)
Assets classified as held for sale	**(20)**	-
Balance at 31 December	**721**	39

Changes in fair values of investment property are recognized as gains/(losses) in profit or loss and included in the "Other Income/(expense)". All gains/(losses) are unrealized.

During the year ended 31 December 2019, an amount of € 37 million (2018: € 3.7 million) was recognized as rental income from investment property in income from non-banking services. Contractual obligations in relation to investment property are presented in note 42.

The main classes of investment property have been determined based on the nature, the characteristics and the risks of the Bank’s properties. The fair value measurements of the Bank’s investment property, which are categorized within level 3 of the fair value hierarchy, are presented in the below table.

	2019 € million	2018 € million
Commercial	**715**	36
Land Plots	**6**	3
Total	**721**	39

The basic methods used for estimating the fair value of the Bank’s investment property are the income approach (income capitalization/discounted cash flow method) and the comparative method, 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 Bank’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 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 Bank’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 the "Investment Property" portfolio as at 31 December 2019, 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 7.5% to 12.5%. As at 31 December 2019, 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 of 17 million and 17 million, respectively.

28. Goodwill and other intangible assets

Goodwill

Impairment testing of goodwill

For the purposes of impairment testing, the goodwill recognised upon the acquisition of Grivalia has been allocated to the Investment Property Segment at Group level, which is defined as the Cash Generating Unit ("CGU") expected to benefit from that business combination.

The recoverable amount of the Investment Property Segment was determined from value-in-use calculation. The key assumptions for the value-in-use calculation are those regarding the discount rate, growth rate and estimated returns based primarily on the rental income from investment properties, and are presented below:

Discount rate (pre-tax)	10.3%
Terminal value growth rate	1.5%
Operating Income	13.6%

Rental Income is the main driver for the revenues and the costs of the Investment Property segment in the value-in-use calculation. The weighted average annual growth rate of gross core income for the initial 3-year period is presented in the above table.

During the year ended 31 December 2019, the Bank recognized an impairment loss of € 62 million against the goodwill asset from the acquisition of Grivalia, which was reduced to € 160 million.

The goodwill impairment loss has been recognised in the separate line "Impairment losses on goodwill" in the Income Statement.

Other intangible assets

The movement of other intangible assets which refer to purchased and developed software is as follows:

	2019 € million	2018 € million
Cost:		
Balance at 1 January	**303**	252
Arising from merger	**0**	23
Additions	**51**	50
Transfers	**(1)**	(17)
Disposals and write-offs	-	(5)
Impairment	**(2)**	-
Balance at 31 December	**351**	303
Accumulated amortisation:		
Balance at 1 January	**(177)**	(147)
Arising from merger	-	(22)
Transfers	-	7
Amortization charge for the year	**(21)**	(18)
Disposals and write-offs	-	3
Balance at 31 December	**(198)**	(177)
Net book value at 31 December	**153**	126

29. Other assets

	2019 € million	2018 [3] € million
Receivable from Deposit Guarantee and Investment Fund	**707**	707
Repossessed properties and relative prepayments	**487**	437
Pledged amount for a Greek sovereign risk financial guarantee	**238**	240
Balances under settlement [2]	**28**	108
Prepaid expenses and accrued income	**76**	70
Income tax receivable [1]	**35**	46
Other guarantees	**56**	44
Other assets	**172**	77
Total	**1,799**	1,729

[1] *Includes withholding taxes, net of provisions.*

[2] *Includes settlement balances with customers and balances under settlement relating to the auction process.*

[3] *In 2019, 'Investment in associates and joint ventures' are presented separately in note 25, while in 2018 were included in other assets.*

As at 31 December 2019, other assets net of provisions, amounting to € 172 million include, among others, receivables related to (a) prepayments to suppliers, (b) public entities, (c) property management activities and (d) legal cases.

30. Assets of disposal groups classified as held for sale

Eurobank FPS Loans and Credits Claim Management S.A., Greece

On 19 December 2019, the Bank announced that it has reached an agreement with doValue S.p.A. ("doValue", the purchaser) to dispose 80% of its subsidiary Eurobank Financial Planning Services ("FPS"), for a cash consideration of € 248 million, subject to certain adjustments. As per the agreement, FPS, which is part of Eurobank's Troubled Asset Group ("TAG") - the unit responsible for the management of the troubled assets portfolio, will take over the Bank's TAG unit in order for the sale to be completed. The transaction also includes the disposal of 80% of the Real Estate Management Single Member S.A., at the option of the purchaser.

In addition, a 10-year servicing agreement will be signed between the Bank and FPS for the servicing of the Bank's early arrears and NPEs. Accordingly, post transaction, FPS will manage a total perimeter of ca. € 26 billion of NPEs, owned by the Bank and third parties, extending its services to all asset classes and becoming the leading independent servicer in Greece.

The agreed consideration for 80% of FPS implies an enterprise value of € 310 million for 100% of the entity. The resulting gain on disposal is estimated at approx. € 155 million before tax (€ 110 million after tax), after taking into account costs directly attributable to the transaction and certain consideration adjustments, in accordance with the terms of the agreement.

The completion of the transaction is expected to occur in the first half of 2020, subject to the fulfillment of the conditions set out in the agreement and the customary regulatory approvals.

As at 31 December 2019, on the basis of the binding agreement signed between the Bank and doValue on 19 December 2019, the Bank's investment in FPS has been classified as held for sale.

Real estate properties

In November 2019, the Bank, in the context of its strategy for the active management of its real estate portfolio (repossessed, investment properties and own used properties) reached pre-sale agreements with prospective investors for the disposal of three pools of real estate assets amounting to a total value of ca. € 0.1 billion (including real estate property of its subsidiary ERB Leasing S.A.) Consequently, the disposal of these properties' portfolios was considered highly probable and they have been classified as held for sale as of the end of November 2019. The fair value less cost to sell of these properties, based on the offer prices included in the pre-sale agreements, was lower than their carrying amount, therefore an impairment loss of € 17 million was recognised upon their remeasurement in accordance with the IFRS 5 requirements. This non-recurring fair value measurement is categorized as Level 3 of the fair value hierarchy due to the significance of the unobservable inputs used. In 2019, the total impairment loss, including selling costs, recognised for these real estate assets amounted to € 31 million and are included in the income statement line "Other impairment losses and provisions", while as at 31 December 2019 their remaining carrying amount (after the completion of certain sales) was € 46 million. The sale of these real estate assets is expected to be concluded within 2020.

Non-performing loan portfolios

In the fourth quarter of 2019, the Bank entered into an agreement for the disposal of non-performing corporate loans and accordingly, loans with gross carrying amount of € 7.6 million, which carried an impairment allowance of € 5.3 million, were classified as held for sale. The transaction is expected to be completed in March 2020 with no effect in the Bank's income statement.

31. Due to central banks

	2019 € million	2018 € million
Secured borrowing from ECB and BoG	**1,900**	2,050

The Bank has eliminated the use of ELA funding since the end of January 2019.

32. Due to credit institutions

	2019 € million	2018 € million
Secured borrowing from credit institutions	**6,788**	7,909
Borrowings from international financial and similar institutions	**438**	429
Interbank takings	**889**	789
Current accounts and settlement balances with banks	**86**	120
Total	**8,201**	9,247

As at 31 December 2019, secured borrowing from credit institutions refers mainly to transactions with foreign institutions, which were conducted with collaterals government and corporate securities, EFSF bonds and covered bonds issued and held by the Bank (notes 5.2.1.3 and 34). As at 31 December 2019, borrowings from international financial and similar institutions include borrowings from European Investment Bank and other similar institutions.

33. Due to customers

	2019 € million	2018 € million
Savings and current accounts	**18,921**	16,187
Term deposits	**13,602**	12,778
Repurchase agreements	**170**	170
Total	**32,693**	29,135

Under the Law 4151/2013, the dormant deposits accounts balances are statute barred for the benefit of the Greek State after the 20-year lapse of the last transaction. Accordingly, in 2019 the amount that the Bank transferred to the Greek State was approximately € 1 million (2018: almost nil).

34. Debt securities in issue

	2019 € million	2018 € million
Securitizations	**943**	1,245
Subordinated notes (Tier 2)	**947**	947
Covered bonds	**500**	499
Medium-term notes (EMTN)	**-**	6
Total	**2,390**	2,697

Securitisations

In the first quarter of 2019, the Bank, through its special purpose financing vehicle Maximus Hellas DAC, proceeded with the upsize of the asset backed securities issue to a total face value of € 1,338 million, of which € 910 million Class A notes were held by an international institutional investor while € 428 million Class B notes were held by the Bank. As at 31 December 2019, following their partial redemption, the carrying value of Class A notes amounted to € 614 million (2018: € 654 million).

In addition, for the year ended 31 December 2019, following their partial redemption, the carrying value of the asset backed securities issued by the Bank's special purpose financing vehicle Astarti DAC, held by an international institutional investor (Class A notes), amounted to € 329 million (2018: € 591 million).

Pillar securitization

In June 2019, the Bank through its special purpose financing vehicle (SPV) 'Pillar Finance Designated Activity Company', issued asset backed securities (notes) of total value of ca. € 2 billion collateralized by a portfolio of primarily non performing residential mortgage loans (project Pillar), which were fully retained by the Bank. The securitization consisted of € 1,044 million senior notes issued at par, € 310 million mezzanine notes issued at par and € 645 million junior notes of issue price € 1. In the same month, the Bank announced that it has entered into a binding agreement with Celidoria S.A R.L, an entity ultimately owned by funds whose investment manager is the global investment management firm Pimco, for the sale of 95% of the mezzanine and junior notes of the abovementioned securitization. Upon the completion of the transaction, in September 2019, the Bank ceased to have control over the SPV (notes 20 and 23).

Cairo securitization

In June 2019, the Bank, through its 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 asset backed securities (notes) of total value of ca. € 7.5 billion, collateralized by a mixed assets portfolio of primarily non performing loans, which have been fully retained by the Bank (note 43).

In the context of Law 4649/2019 ('Hercules' – Hellenic Asset Protection Scheme) voted by the Greek parliament on 16 December 2019, the SPVs will opt in for the state guarantee scheme. Accordingly, the Cairo transaction's parameters that include the senior note of face value € 2.4 billion, the mezzanine note of face value € 1.5 billion and the junior note of issue price € 1 (initial principal amount of € 3.6 billion) have taken into account the estimated cost of Hercules and are subject to the targeted rating confirmation.

In December 2019, the Bank announced that it has entered into binding agreements with doValue S.p.A. for: (a) the sale of 80% of its subsidiary Eurobank Financial Planning Services ("FPS") (note 30) and (b) the sale of a portion of mezzanine and junior notes of the aforementioned NPE Securitization. In particular, it has been agreed that 20% of the mezzanine notes and the minimum required percentage (as per 'Hercules' – Hellenic Asset Protection Scheme) of the junior notes will be sold to the above investor for a consideration of € 15 million in cash.

The Bank will retain 100% of the senior notes and the 5% of the mezzanine and junior notes. The completion of the transactions with doValue S.p.A is expected to take place within the first half of 2020, subject to obtaining the relevant regulatory approvals in line with the market practice.

Tier 2 Capital instruments

In January 2018, the Bank 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, which 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, as at 31 December 2019, amounted to € 947 million, including € 3 million unamortized issuance costs and € 0.2 million accrued interest.

Medium-term notes (EMTN)

In the first quarter of 2019, medium term notes of face value of € 7 million, issued by the Bank and held by a Bank's subsidiary, ERB Hellas (Cayman Islands) Ltd, matured.

Covered bonds

During the year ended 31 December 2019, the Bank proceeded with the partial cancellation of covered bonds of face value of € 150 million, previously retained by the Bank.

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).

Post balance sheet event

In February 2020, the Bank proceeded with the partial cancellation of covered bonds of face value of € 150 million previously retained by the Bank.

35. Other liabilities

	2019 € million	2018 € million
Lease liabilities [(1)]	**121**	-
Balances under settlement [(2)]	**154**	151
Deferred income and accrued expenses	**66**	62
ECL allowance for credit related commitments (note 5.2.1.2)	**289**	305
Standard legal staff retirement indemnity obligations (note 36)	**46**	43
Employee termination benefits [(3)]	**31**	8
Sovereign risk financial guarantee	**41**	43
Other provisions	**144**	122
Other liabilities	**189**	138
Total	**1,081**	872

[(1)] Following the adoption of IFRS 16 as of 1 January 2019 (note 2.3.1).
[(2)] Includes settlement balances relating to bank cheques and remittances, credit card transactions and other banking activities.
[(3)] For the year ended 31 December 2018, obligations for employee termination benefits arising from VES were presented within other provisions.

As at 31 December 2019, other liabilities amounting to € 189 million mainly consist of payables relating with (a) suppliers and creditors, (b) contributions to insurance organizations, (c) duties and other taxes and (d) trading liabilities.

As at 31 December 2019, other provisions amounting to € 144 million (2018: € 122 million) mainly include: (a) € 50 million for outstanding litigations against the Bank (note 42), (b) € 28 million for other operational risk events, of which € 22 million is related to Romanian disposal group (note 23) and (c) € 64 million for the participation in share capital increases of Bank's subsidiaries with negative net assets value, which are necessary for the continuity of their operations of which 30 million has been recognized in the income statement during the year.

The movement of the Bank's other provisions, is presented in the following table:

	31 December 2019		
	Litigations and claims in dispute € million	Other € million	Total € million
Balance at 1 January	**50**	**72**	**122**
Amounts charged during the year	**2**	**37**	**39**
Amounts used during the year	**(1)**	**(14)**	**(15)**
Amounts reversed during the year	**(2)**	**(2)**	**(4)**
Other movements	**1**	**1**	**2**
Balance at 31 December	**50**	**94**	**144**

	31 December 2018		
	Litigations and claims in dispute € million	Other € million	Total € million
Balance at 1 January	58	8	66
Amounts charged during the year	2	66	68
Amounts used during the year	(0)	(0)	(0)
Amounts reversed during the year	(8)	(2)	(10)
Other movements	(2)	(0)	(2)
Balance at 31 December	50	72	122

For the year ended 31 December 2019, an amount of € 40 million has been recognised in the Bank's income statement for employee termination benefits in respect of the Voluntary Exit Scheme (VES) launched by the Bank in May 2019. The new VES has been offered to employees over an age limit as well as to employees of specific eligible Bank units independent of age and will be 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.

In respect of the Voluntary Exit Scheme (VES) that was initiated during the previous years, the Bank recognised an additional cost of € 13 million in the year ended 31 December 2019. Further information is provided in note 34 of the financial statements for the year ended 31 December 2018.

36. Standard legal staff retirement indemnity obligations

The Bank 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 Bank until normal retirement age, in accordance with the local labor legislation. The above retirement indemnity obligations typically expose the Bank 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 Bank.

The movement of the liability for standard legal staff retirement indemnity obligations is as follows:

	2019 € million	2018 € million
Balance at 1 January	**43**	44
Arising from merger	**-**	1
Current service cost	**3**	3
Interest cost	**1**	1
Past service cost and (gains)/losses on settlements	**28**	43
Remeasurements:		
Actuarial (gains)/losses arising from changes in financial assumptions	**4**	(2)
Actuarial (gains)/losses arising from changes in demographic assumptions	**-**	1
Actuarial (gains)/losses arising from experience adjustments	**1**	1
Benefits paid	**(34)**	(49)
Balance at 31 December	**46**	43

The benefits paid by the Bank during 2019, in the context of the Voluntary Exit Scheme (VES) (note 35), amounted to € 34 million. The provision for staff retirement obligations of the staff that participated in the above scheme, amounted to € 6 million.

The significant actuarial assumptions (expressed as weighted averages) were as follows:

	2019 %	2018 %
Discount rate	**0.9**	1.9
Future salary increases	**1.9**	2.3

As at 31 December 2019, the average duration of the standard legal staff retirement indemnity obligation was 17 years (2018: 18 years).

A quantitative sensitivity analysis based on reasonable changes to significant actuarial assumptions as at 31 December 2019 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 (€ 3.4 million)/ € 3.7 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 € 3.7 million/ (€ 3.3 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 and share premium

As at 31 December 2019, the par value of the Bank's shares is € 0.23 per share (2018: € 0.30). All shares are fully paid. The movement of ordinary share capital, share premium and the number of ordinary shares issued by the Bank, are as follows:

	Share capital € million	Share premium € million	Number of issued shares
Balance at 1 January	656	8,056	2,185,998,765
Share capital increase, following the merger with Grivalia Properties REIC	197	-	1,523,163,087
Balance at 31 December 2019	**853**	**8,056**	**3,709,161,852**

On 5 April 2019, the Extraordinary General Meeting of the Bank's Shareholders approved the merger of the Bank with Grivalia Properties REIC (note 24) by absorption of the latter by the former and resolved the increase of the share capital of the Bank by:

a) € 165 million, which corresponds to the share capital of Grivalia Properties REIC; and
b) € 32 million, derived from taxed profits for rounding reasons of the nominal value of the Bank's common shares, which was decreased from € 0.30 to € 0.23.

Following the above increases, the Bank's total share capital amounts to € 853 million divided into 3,709,161,852 common voting shares of nominal value of € 0.23 each.

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 Bank it is not permitted to the Bank to purchase treasury shares without the approval of the HFSF.

38. Reserves and retained earnings

	Statutory reserves € million	Non-taxed reserves € million	Fair value reserve € million	Other reserves € million	Retained earnings € million	Total € million
Balance at 1 January 2018	204	887	206	6,458	(11,018)	(3,263)
Impact of adopting IFRS 9 at 1 January 2018 (note 2.3.3)	-	-	13	-	(995)	(982)
Restatement due to charge in accounting policy (note 2.3.2)	-	-	-	-	5	5
Balance at 1 January 2018, as restated	204	887	219	6,458	(12,008)	(4,240)
Net profit (restated note 2.3.2)	-	-	-	-	33	33
Merger with a Bank's subsidiary	1	0	-	0	(2)	(1)
Debt securities at FVOCI	-	-	(166)	-	-	(166)
Cash flow hedges	-	-	-	5	-	5
Hybrid capital's dividend paid and buy back, net of tax	-	-	-	-	(2)	(2)
Balance at 31 December 2018	205	887	53	6,463	(11,979)	(4,371)
Balance at 1 January 2019	**205**	**887**	**53**	**6,463**	**(11,979)**	**(4,371)**
Net profit	-	-	-	-	31	**31**
Merger with Grivalia Properties REIC (note 24)	9	-	-	549	332	**890**
Debt securities at FVOCI	-	-	409	-	-	**409**
Cash flow hedges	-	-	-	(5)	-	**(5)**
Actuarial gains/(losses) on post employment benefit obligations, net of tax	-	-	-	(4)	-	**(4)**
Hybrid capital's dividend paid and buy back, net of tax	-	-	-	-	(4)	**(4)**
Balance at 31 December 2019	**214**	**887**	**462**	**7,003**	**(11,620)**	**(3,054)**

As at 31 December 2019, other reserves mainly comprise: (a) € 5,579 million, pursuant to the corporate law in force (currently article 31 of Law 4548/2018), which can be only either capitalized or offset against losses carried forward (2018: € 5,579 million), (b) € 1,126 million, also pursuant to the corporate law in force (currently article 35 of Law 4548/2018), which is not distributable, but it can be either capitalized or offset against losses carried forward to the extent that these losses cannot be covered by designated reserves or other company funds for which loss absorption is provided in the corporate law (2018: € 578 million) and (c) € 42 million accumulated loss relating to cash flow hedging (2018: € 37 million loss).

Statutory reserves, fair value reserve and cash flow hedges are not distributable, while non-taxed reserves are taxed when distributed.

Dividends

Based on the 2019 results in combination with the article 159 of Company Law 4548/2018, the distribution of dividends is not permitted Under article 10 par. 3 of Law 3864/2010 for the "establishment of a Hellenic Financial Stability Fund", for as long the HFSF participates in the share capital of the Bank, the amount of dividends that may be distributed to shareholders of the Bank cannot exceed 35% of the profits as provided in article 161 par. 2 of Company Law 4548/2018.

39. Hybrid capital

The movement of hybrid capital issued by the Bank, in the form of preferred securities, through its Special Purpose Entity, ERB Hellas Funding Limited, for the years ended 31 December 2019 and 2018 is analyzed as follows:

	Series A € million	Series B € million	Series C € million	Series D € million	Total € million
Balance at 1 January 2018	2	4	18	19	43
Buy Back	-	-	(1)	-	(1)
Balance at 31 December 2018	2	4	17	19	42
Balance at 1 January 2019	**2**	**4**	**17**	**19**	**42**
Redemption of Hybrid capital	-	(4)	(17)	(19)	(40)
Balance at 31 December 2019	**2**	**-**	**-**	**-**	**2**

All obligations of the issuer, in respect of the aforementioned issues of preferred securities, are guaranteed on a subordinated basis by the Bank. The analytical terms of each issue along with the rates and/or the basis of calculation of preferred dividends are available at the Bank's website. Following the redemption of the Greek State – owned preference shares (note 34) on 17 January 2018, and in accordance with the terms of the preferred securities, ERB Hellas Funding Ltd declared and paid, for the year ended 31 December 2019, the non-cumulative dividends of € 2.5 million (€ 2.1 million after tax) in total on the Series A, B, C and D. As at 31 December 2019, the dividend attributable to preferred securities holders amounted to € 2 million (€ 1.7 million, after tax).

In April 2019, the Board of Directors of ERB Hellas Funding decided to proceed with the redemption of all four series of the preferred securities issued. The relevant regulatory announcement of the company's intention was released on 23 April 2019. Accordingly, on 29 May, 21 June and 13 September 2019, a notice for the redemption of series C, B and D preferred securities was given to the holders. The notes were redeemed on 9 July, 2 August and 29 October 2019, respectively.

Post balance sheet event

On 23 January 2020, a notice for the redemption of series A preferred securities was given to the holders. Pursuant to its terms, the next available call date for the redemption of series A preferred securities is the 18 March 2020.

40. Transfers of financial assets

The Bank enters into transactions by which it transfers recognized financial assets directly to third parties or to Special Purpose Entities (SPEs).

(a) The Bank 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 Bank 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 Bank 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 of the above transactions, the Bank is unable to use, sell or pledge the transferred assets for the duration of the transaction. The related liability 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 Bank 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 Bank 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 Bank 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 2019, the securitizations' issues held by third parties amounted to € 943 million (2018: € 1,245 million) (note 34).

The table below sets out the details of Bank's financial assets that have been sold or otherwise transferred, but which do not qualify for derecognition:

	Carrying amount	
	2019	2018
	€ million	€ million
Securities held for trading	**8**	6
Loans and advances to customers	**15,431**	15,789
-securitized loans [(1)]	***9,298***	*2,268*
-pledged loans under covered bond program	***4,630***	*5,014*
-pledged loans with central banks	***1,318***	*8,337*
-other pledged loans	***185***	*170*
Investment securities	**5,044**	6,374
Total	**20,483**	22,169

[(1)] It includes securitized loans of issues held by the Bank, not used for funding, as well as loans under the Cairo securitizations (note 34).

(b) The Bank 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 Bank. As at 31 December 2019, the Bank had obtained through reverse repos securities of face value of € 1,452 million, sold under repurchase agreements with cash value of € 1,620 million (2018: € 117 million and € 123 million, respectively). Furthermore, as at 31 December 2019, the Bank had obtained Greek treasury bills as collaterals for derivatives transactions with the Hellenic Republic of face value of € 1,870 million, sold under repurchase agreements with € 1,538 million cash value (2018: € 1,200 million and € 860 million, respectively).

As at 31 December 2019, the cash value of the assets transferred or borrowed by the Bank through securities lending, reverse repo and other agreements (points a and b) amounted to € 12,133 million, while the associated liability from the above transactions amounted to € 11,923 million, of which € 1,607 million repo agreements offset in the balance sheet against reverse repo deals (notes 31, 32, 33, 34 and 5.2.1.4) (2018: cash value € 15,618 million and liability € 11,974 million, of which € 100 million repo agreements offset in the balance sheet). In addition, the Bank'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

Bank as a lessee

Policy applicable after 1 January 2019

The Bank leases office and branch premises, ATM locations, residential properties for the Bank's personnel, and motor vehicles.

The majority of the Bank'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, while motor vehicles generally have lease terms of up to 4 years. Extension options held by the Bank 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 2019, 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.

Before the adoption of IFRS 16, these leases were classified as operating leases under IAS 17.

Information about the leases for which the Bank is a lessee is presented below:

Right-of-Use Assets

As at 31 December 2019, the right-of-use assets included in property plant and equipment amounted to € 120 million (note 26).

Lease Liabilities

The lease liability included under other liabilities amounted to € 121 million as at 31 December 2019 (note 35). The maturity analysis of lease liabilities as at 31 December 2019, 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. € 1 million. The operating lease expense under IAS 17 was € 40 million in 2018.

The Bank had total cash outflows for leases of € 32 million in 2019.

Policy applicable before 1 January 2019

The Bank has entered into commercial leases for premises, equipment and motor vehicles. The majority of the Bank's leases are under long-term agreements, according to the usual terms and conditions of commercial leases, including renewal options. In particular, as provided by the Greek Commercial Leases Law currently in force, the minimum lease period for commercial real estate leases starting after the end of February 2014 is three years. Accordingly, non-cancellable lease payments are determined based on the said legal provisions and the relevant contractual terms.

The Bank's lease agreements, do not include any clauses that impose any restriction on the Bank's ability to pay dividends, engage in debt financing transactions or enter into further lease agreements.

Non-cancellable operating lease rentals were payable as follows:

	2018 € million
Not later than one year	26
Later than one year and no later than five years	56
Later than five years	25
Total	107

Bank as a lessor

Finance lease

Policy applicable after 1 January 2019 (IFRS 16)

The Bank 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:

	2019 **€ million**
Not later than 1 year	**1**
1-2 years	**1**
2-3 years	**0**
3-4 years	**0**
4-5 years	**0**
Later than 5 years	**1**
Lease payments	**3**
Unguaranteed residual values	**43**
Gross investment in finance leases	**46**
Less: unearned finance income	**(3)**
Net investment in finance leases	**43**
Less: Impairment allowance	**(28)**
Total	**15**

Policy applicable before 1 January 2019 (IAS 17)

Loans and advances to customers included finance lease receivables, as detailed below:

	2018 € million
Gross investment in finance leases receivable:	
Not later than 1 year	26
Later than 1 year and not later than 5 years	3
Later than 5 years	16
	45
Unearned future finance income on finance leases	(2)
Net investment in finance leases	43
Less: Impairment allowance	(26)
Total	17
The net investment in finance leases is analysed as follows:	
Not later than 1 year	26
Later than 1 year and not later than 5 years	2
Later than 5 years	15
	43
Less: Impairment allowance	(26)
Total	17

Operating Leases

Policy applicable after 1 January 2019 (IFRS 16)

The Bank leases out its investment property under the usual terms and conditions of commercial leases. When such leases do not transfer substantially all of the risks and rewards incidental to the ownership of the leased assets, the Bank classifies these lease as operating leases. Information relating to operating leases of investment property, including the rental income recognised by the Bank during the year, is provided in note 8.

The maturity analysis of operating lease receivables (mainly referring to the investment property portfolio acquired from Grivalia in 2019, note 24), based on the undiscounted lease payments to be received after the reporting date, is provided below:

	2019 **€ million**
Not later than one year	**51**
One to two years	**47**
Two to three years	**45**
Three to four years	**41**
Four to five years	**39**
More than five years	**236**
Total	**459**

Policy applicable before 1 January 2019

Non-cancellable operating lease rentals were receivable as follows:

	2018 € million
Not later than one year	2
Later than one year and no later than five years	3
Later than five years	1
Total	6

There were no material future minimum sublease payments to be received under non cancellable subleases.

42. Contingent liabilities and other commitments

The Bank 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:

	2019 € million	2018 € million
Financial guarantee contracts	**1,019**	971
Financial guarantees contracts given to Bank SPVs' issuing EMTNs	**38**	87
Other credit related commitments	**303**	254
Commitments to extend credit	**731**	172
Total	**2,091**	1,484

As of 31 December 2019, the credit related commitments within the scope of IFRS 9 impairment requirements amounted to € 4.8 billion (2018: 4.9 billion), including revocable loan commitments of € 2.1 billion (2018: 2.2 billion) and guarantees of € 0.6 billion (2018: 1.2 billion) relating to the lending activities of banking subsidiaries for which the equivalent pledged amount is presented within "Due from credit institutions". The analyses per stage, according to IFRS 9, of the above credit related commitments and the corresponding allowance for impairment losses of € 289 million (2018: € 305 million) are provided in the note 5.

In addition, the Bank has issued a sovereign risk financial guarantee of € 0.24 billion (2018: € 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 € 13 million as at 31 December 2019 (2018: € 10 million), representing 15% of its resolution contribution payment obligation to the Single Resolution Fund (SRF) for the years 2016-2019.

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. The said cash collateral has been recognized as a financial asset in the Bank's balance sheet (note 29).

(b) As at 31 December 2019, the contractual commitments for the acquisition of own used property, equipment and intangible assets amounted to € 16 million (2018: € 13 million).

In addition, the Bank has assumed a contractual obligation amounting to ca. € 120 million as at 31 December 2019 (2018: nil) relating to future purchase of investment property.

Post balance sheet event

In March 2020, the Bank fulfilled the aforementioned obligation and proceeded to the purchase of four real-estate properties leased to Sklavenitis Group. Consideration paid amounted to ca. € 117 million, while the payment of an amount of ca. € 2 million is contingent to specific conditions.

Legal proceedings

As at 31 December 2019, a provision of € 50 million has been recorded for a number of legal proceedings outstanding against the Bank (2018: € 50 million). The said amount includes € 34 million for an outstanding litigation related to the acquisition of New TT Hellenic Postbank S.A. in 2013 (2018: € 34 million).

Furthermore, in the normal course of its business, the Bank 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, 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.

Against the Bank various legal remedies and redresses have been filed amongst others in the form of lawsuits, applications for injunction measures, motions to vacate payment orders and appeals in relation to the validity of clauses for the granting of loans in Swiss Francs. As to certain aspects of Swiss Francs loans there was a pending lawsuit before the Supreme Court at plenary session which was initiated from an individual lawsuit. The Decision issued on 18 April 2019 was in favour of the Bank.

A class action has also been filed by a consumer union. To date the vast majority of the judgments issued by the first instance and the appellate Courts have found in favour of the Bank's positions. On the class action, a judgment of the Athens Court of Appeals was issued in February 2018, which was in favour of the Bank and rejected the lawsuit on its merits. The judgment has been challenged by the consumer unions with an appeal which was scheduled to be heard before the Supreme Court on 20 May 2019. This hearing was cancelled due to the elections held on 26 May 2019. The appeal was heard on 13 January 2020 and the decision is pending to be issued.

In any event, the Management of the Bank is closely monitoring the developments to the relevant cases so as to ascertain potential accounting implications in accordance with the Bank's accounting policies.

43. Corporate Transformation-Hive down

In November 2018, the Bank announced its transformation plan, which includes the Merger with Grivalia (note 24) and the non performing loans' (NPEs) reduction Acceleration Plan comprising the following steps: a) the securitisation of ca. € 2 billion of NPEs, through the issue of senior, mezzanine and junior notes and the sale of the 95% of the above mentioned mezzanine and junior notes to a third party investor resulting to the de-recognition of the respective securitized NPEs from the Bank's balance sheet (project Pillar, note 20), b) the securitization of ca. € 7.5 billion of NPEs, through the issue of senior, mezzanine and junior notes (project Cairo, note 34), c) the legal separation of the core and non-core operations of the Bank through the hive-down of the core operations to a new subsidiary (as further described below), d) the entry of a strategic investor into Financial Planning Services S.A. (FPS), the licensed 100% owned loan servicer of the Bank, including the Bank's Troubled Asset Group (note 30), e) the sale of a portion of Cairo mezzanine and junior notes to a third party investor (note 34) and, f) the contemplated de-recognition of the securitized NPEs through the disposal /distribution of the remaining Cairo mezzanine and junior notes, subject inter alia to corporate and regulatory approvals .

Hive down

On 28 June 2019, the BoD of the Bank ("Demerged Entity") decided the initiation of the hive down process of the banking business sector of Eurobank and its transfer to a new company-credit institution that will be established ("the Beneficiary").

On 31 July 2019, the BoD of the Bank approved the Draft Demerger Deed through the aforementioned hive down and establishment of a new company-credit institution, pursuant to Article 16 of Law 2515/1997 and Articles 57 (3) and 59-74 of Law 4601/2019, as currently in force. In particular, the demerger will involve the hive-down of the banking business sector of Eurobank, to which the assets and the liabilities are included, as described on the transformation balance sheet of the hived-down sector as at 30 June 2019 ("Transformation Date"). All actions that have taken place after the Transformation Date and concern the hived down sector shall be treated as occurring on behalf of the Beneficiary. As of 9 August 2019, the Draft Demerger Deed of the Bank is available on its website as well as the website of the General Commercial Registry.

The Demerged Entity will maintain activities and assets that are not related to the main banking activities but are mainly related to the strategic planning of the administration of non-performing loans and the provision of services to the Group companies and third parties. Furthermore, the Demerged Entity will retain the majority stake of Cairo mezzanine and junior notes, the preferred securities (note 39) and participations in certain subsidiaries including Be Business Exchanges S.A. and real estate companies related to projects Pillar and Cairo. In case of any assets or liabilities that will not be possible to be transferred, in the context of the above mentioned Draft Demerger Deed, the Demerged Entity will undertake the obligation to collect or liquidate the assets in accordance with the Beneficiary's instructions whereas the Beneficiary will undertake the obligation to indemnify the Demerged Entity for the settlement of the liabilities including any arising costs or losses.

On 31 January 2020, the Bank's Extraordinary General Meeting (EGM) resolved, among others, a) the approval of the aforementioned demerger of Eurobank through the business banking sector's hive down and the establishment of a new company-credit institution under the corporate name "Eurobank S.A.", b) the approval of the Draft Demerger Deed as well as the Articles of

Association of the Beneficiary, as they were approved by the Bank's BoD and, c) the adjustment of the Articles of Association of the Demerged Entity which will cease to be a credit institution by amending its object and corporate name, as was also approved by the Bank's BoD.

Upon the completion of the demerger (i.e. the date of registration with the General Commercial Registry of the relevant approval by the competent Authority), the following shall take place: a) The Beneficiary will be incorporated and the Demerged Entity shall become the shareholder of the Beneficiary by acquiring all the shares issued by the Beneficiary and more specifically 3,683,244,830 common registered shares, of a nominal value of € 1.10 each and b) the Beneficiary will substitute the Demerged Entity, by way of universal succession, to all the transferred assets and liabilities, as set out in the transformation balance sheet of the hived down sector and formed up to the completion of the demerger.

The completion of the demerger is expected take place by the end of March 2020, subject to the receipt of the necessary approvals by the competent Authorities.

44. Post balance sheet events

Details of other post balance sheet events are provided in the following notes:

Note 2.1 - Basis of preparation
Note 4 - Capital Management
Note 5.2 - Financial risk factors
Note 23 -Shares in subsidiaries
Note 34 - Debt securities in issue
Note 39 - Hybrid capital
Note 42 - Contingent liabilities and other commitments
Note 43 - Corporate Transformation-Hive down

45. Related parties

In May 2019, following the increase of the share capital of the Bank in the context of the merger with absorption of Grivalia Properties REIC (note 24), the percentage of the Bank's ordinary shares with voting rights held by the Hellenic Financial Stability Fund (HFSF) decreased from 2.38% to 1.40%. The HFSF is still considered to have significant influence over the Bank pursuant to the provisions of the Law 3864/2010, as in force, and the Relationship Framework Agreement (RFA) the Bank has entered into with the HFSF. 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 2019.

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 Bank at times may hold positions in debt and equity instruments of related parties.

The outstanding balances of the transactions with: (a) the subsidiaries, (b) the key management personnel (KMP) and the entities controlled or jointly controlled by KMP and (c) the associates and joint ventures, as well as the relating income and expenses are as follows:

	31 December 2019			31 December 2018		
	Subsidiaries [2]	**KMP [1] and Entities controlled or jointly controlled by KMP**	**Associates and joint ventures**	Subsidiaries	KMP [1] and Entities controlled or jointly controlled by KMP	Associates and joint ventures
	€ million	**€ million**	**€ million**	€ million	€ million	€ million
Due from credit institutions [3]	**752.25**	**-**	**-**	1,263.38	-	-
Securities held for trading	**0.62**	**-**	**-**	-	-	-
Derivative financial instruments assets	**19.24**	**-**	**-**	4.56	-	
Investment securities	**-**	**-**	**-**	0.46	-	-
Loans and advances to customers [3]	**1,435.85**	**6.16**	**11.60**	1,370.91	7.19	0.83
Other assets	**10.89**	**-**	**9.80**	5.18	-	6.86
Due to credit institutions	**3,432.26**	**-**	**-**	3,082.19	-	-
Derivative financial instruments liabilities	**2.03**	**-**	**-**	5.03	-	-
Due to customers	**294.24**	**13.86**	**46.83**	405.53	3.35	44.40
Debt securities in issue	**-**	**-**	**-**	6.72	-	-
Other liabilities [3]	**294.99**	**-**	**3.21**	299.47	-	1.88
Net interest income	**(4.47)**	**0.01**	**(4.25)**	(4.26)	0.04	(6.77)
Net banking fee and commission income	**(0.59)**	**-**	**18.09**	7.28	-	12.78
Dividend income	**130.00**	**-**	**11.00**	105.60	-	16.08
Net trading income	**(0.47)**	**-**	**0.25**	0.26	-	0.23
Gains less losses from investment securities	**-**	**-**	**-**	-	-	0.31
Other operating income/(expense)	**8.96**	**(7.61)**	**(22.81)**	2.40	-	(22.70)
Other Impairment losses and provisions (note 13)	**(30.00)**	**-**	**-**	(34.00)	-	-
Impairment losses relating to loans and advances and collectors' fees	**(44.66)**	**-**	**(4.79)**	(39.40)	-	(10.58)
Guarantees issued [4]	**598.45**	**0.01**	**2.00**	515.83	-	-
Guarantees received	**-**	**0.03**	**-**	-	0.03	-

[1] Includes the key management personnel of the Bank and their close family members.

[2] Equity contributions and other transactions with subsidiaries are presented in notes 11 and 23.

[3] Furthermore as of 31 December 2019, € 0.7 billion guarantees have been issued relating mainly to the lending activities of banking subsidiaries for which the equivalent pledged amount is included above in "Due from credit institutions" (2018: € 1.2 billion).

[4] The amount of € 7.61 million reported for entities controlled by KMP is related to the services agreement with Grivalia Management Company S.A (note 24).

For the year ended 31 December 2019, there were no material transactions with the HFSF. In addition, as at 31 December 2019, the loans, net of provisions, granted to entities controlled by the Bank pursuant to the terms of the relevant share pledge agreements (note 23) amounted to € 3 million (2018: € 3.3 million).

In 2019, the Bank proceeded with the purchase of loans at amortized cost of gross carrying amount of € 280 million and loans at FVTPL of € 4 million from its subsidiary ERB New Europe Funding II B.V.

Following the assessment of the recoverable amount of the Bank's funding to its subsidiaries, associates and joint ventures, an impairment loss of € 26 million has been recognized in respect of the Bank's loans, receivables and the credit related commitments to its subsidiaries, associates and joint ventures, mainly to reflect the carrying values of their loan's portfolios. As at 31 December 2019, the respective impairment allowance amounted to € 280 million (2018: € 300 million).

Following the completion of the merger of Eurobank with Grivalia Properties REIC (note 24), Fairfax group has increased its percentage holding in the Bank's share capital, which as at 31 December 2019 stands at 31.27%. As at 31 December 2019, the Bank's outstanding balances of the transactions with Fairfax group mainly refer to loans granted of € 0.02 million, deposits received of € 3.7 million and guarantees issued of € 0.4 million.

Key management compensation (directors and other key management personnel of the Bank)

Key management personnel are entitled to compensation in the form of short-term employee benefits of € 6.42 million (2018: € 6.49 million) and long-term employee benefits of € 1.01 million (2018: € 1.54 million). In addition, as at 31 December 2019, the defined benefit obligation for the KMP amounts to € 1.70 million (2018: € 1.68 million), while the respective cost for the year through the income statement amounts to € 0.29 million and the actuarial loss through the other comprehensive income amounts to € 0.17 million (2018: € 0.09 million through the income statement).

46. External Auditors

The Bank has adopted a Policy on External Auditors' Independence which provides amongst others, for the definition of the permitted and non-permitted services the Bank auditors may provide further to the statutory audit. For any such services to be assigned to the Bank's auditors there are specific controlling mechanisms in order for the Bank's Audit Committee to ensure there is proper balance between audit and non-audit work.

The total fees of the Bank's independent auditor "KPMG Certified Auditors" for audit and other services provided are analyzed as follows:

	2019 € million	2018 € million
Statutory audit [1]	**(1.1)**	(1.2)
Tax certificate	**(0.2)**	(0.2)
Other audit related assignments	**(0.3)**	(0.1)
Non audit assignments	**(0.1)**	(0.1)
Total	**(1.7)**	(1.6)

[1] Includes fees for statutory audit of the Bank's annual financial statements.

It is noted that the non-audit assignments fees of "KPMG Certified Auditors A.E." Greece, statutory auditor of the Bank, amounted to € 0.1 million.

47. Board of Directors

The Board of Directors (BoD) was elected by the Annual General Meeting of the Shareholders of the Bank (AGM) held on 10 July 2018 for a three years term of office that will expire on 10 July 2021, prolonged until the end of the period the AGM for the year 2021 will take place.

Further to that:

- The BoD by its decisions dated 29 March and 1 April 2019, appointed Mr. George Zanias as new non-executive Director and Chairman of the BoD in replacement of the resigned Chairman Mr. N. Karamouzis. The appointment of Mr. George Zanias was announced to the Extraordinary General Meeting of the Shareholders of the Bank (EGM) held on 5 April 2019 and his term of office will expire concurrently with the term of office of the other members of the BoD.
- Following the resignation of Ms. Lucrezia Reichlin, effective as of 1 April 2019, the BoD of the Bank decided on 1 April 2019 not to replace her and the continuation of the management and representation of the Bank by the BoD without her replacement.
- The EGM of the Shareholders of the Bank held on 5 April 2019 approved the appointment of Mr. Nikolaos Bertsos as new independent non-executive member of the Bank's BoD, whose term of office will expire concurrently with the term of office of the other members of the BoD. Same day (5 April 2019), the BoD decided its constitution as a body.
- The BoD by its decision dated 31 July 2019, appointed Mr. Konstantinos Angelopoulos as the new representative of the HFSF to Eurobank's BoD in replacement of the resigned Ms. Aikaterini Beritsi, according to the provisions of Law 3864/2010 and the Relationship Framework Agreement signed between Eurobank and HFSF.
- The BoD by its decision dated 16 December 2019, appointed Mr. Dimitrios Miskou as the new representative of the HFSF to Eurobank's BoD in replacement of the departing Mr. Konstantinos Angelopoulos, according to the provisions of Law 3864/2010 and the Relationship Framework Agreement signed between Eurobank and HFSF.

Following the above, the BoD is as follows:

G. Zanias	Chairman, Non-Executive
G. Chryssikos	Vice Chairman, Non-Executive
F. Karavias	Chief Executive Officer
S. Ioannou	Deputy Chief Executive Officer
T. Kalantonis	Deputy Chief Executive Officer
K. Vassiliou	Deputy Chief Executive Officer
B. P. Martin	Non-Executive
N. Bertsos	Non-Executive Independent
R. Boucher	Non-Executive Independent
R. Kakar	Non-Executive Independent
J. Mirza	Non-Executive Independent
G. Myhal	Non-Executive Independent
D. Miskou	Non-Executive (HFSF representative under Law 3864/2010)

Athens, 12 March 2020

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 GROUP CHIEF FINANCIAL OFFICER