EUROBANK ERGASIAS S.A.

FINANCIAL STATEMENTS

FOR THE YEAR ENDED

31 DECEMBER 2018

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Balance Sheet

	Note	31 December 2018 € million	31 December 2017 € million
ASSETS			
Cash and balances with central banks	17	**397**	372
Due from credit institutions	19	**3,190**	2,867
Securities held for trading	20	**18**	13
Derivative financial instruments	21	**1,875**	1,884
Loans and advances to customers	22	**29,354**	30,866
Investment securities	24	**6,597**	6,616
Shares in subsidiary undertakings	25	**1,753**	1,814
Property, plant and equipment	26	**244**	237
Investment property	27	**32**	22
Intangible assets	28	**126**	105
Deferred tax assets	16	**4,903**	4,846
Other assets	29	**1,766**	1,608
Assets classified as held for sale	22, 25	**20**	198
Total assets		**50,275**	51,448
LIABILITIES			
Due to central banks	30	**2,050**	9,994
Due to credit institutions	31	**9,247**	7,168
Derivative financial instruments	21	**1,896**	1,850
Due to customers	32	**29,135**	25,015
Debt securities in issue	33	**2,697**	503
Other liabilities	34	**872**	476
Total liabilities		**45,897**	45,006
EQUITY			
Ordinary share capital	36	**656**	656
Share premium	36	**8,056**	8,056
Reserves and retained earnings		**(4,376)**	(3,263)
Preference shares	33	**-**	950
Hybrid capital	37	**42**	43
Total equity		**4,378**	6,442
Total equity and liabilities		**50,275**	51,448

Notes on pages 6 to 137 form an integral part of these financial statements

Income Statement

	Note	Year ended 31 December 2018 € million	2017 € million
Interest income		**1,807**	1,782
Interest expense		**(752)**	(682)
Net interest income	7	**1,055**	1,100
Banking fee and commission income		**271**	212
Banking fee and commission expense		**(86)**	(85)
Net banking fee and commission income	8	**185**	127
Income from non banking services		**6**	6
Dividend income	9	**123**	132
Net trading income	10	**20**	58
Gains less losses from investment securities	10	**79**	65
Other income/(expenses)	11	**(4)**	19
Operating income		**1,464**	1,507
Operating expenses	12	**(665)**	(672)
Profit from operations before impairments, provisions and restructuring costs		**799**	835
Impairment losses relating to loans and advances to customers	23	**(606)**	(716)
Other impairment losses and provisions	14	**(79)**	(132)
Restructuring costs	14	**(58)**	(11)
Profit/(Loss) before tax		**56**	(24)
Income tax	15	**(23)**	35
Net profit		**33**	11

Notes on pages 6 to 137 form an integral part of these financial statements

Statement of Comprehensive Income

	Year ended 31 December			
		2018		2017
		€ million		€ million
Net profit		**33**		11
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	**26**		30	
- transfer to net profit, net of tax	**(21)**	**5**	(11)	19
Debt securities at FVOCI				
- changes in fair value, net of tax (note 24)	**(81)**		-	
- transfer to net profit, net of tax (note 24)	**(85)**	**(166)**	-	-
Available for sale securities				
- changes in fair value, net of tax (note 24)	**-**		238	
- transfer to net profit, net of tax (note 24)	**-**	**-**	(36)	202
		(161)		221
Items that will not be reclassified to profit or loss:				
-Actuarial gains/ (losses) on post employment benefit obligations, net of tax		**0**		(2)
Other comprehensive income		**(161)**		219
Total comprehensive income		**(128)**		230

Notes on pages 6 to 137 form an integral part of these financial statements

Statement of Changes in Equity

	Ordinary share capital € million	Share premium € million	Special reserves € million	Retained earnings € million	Preference shares € million	Hybrid capital € million	Total € million
Balance at 1 January 2017	656	8,056	7,540	(11,033)	950	43	6,212
Net profit	-	-	-	11	-	-	11
Other comprehensive income	-	-	219	-	-	-	219
Total comprehensive income for the year ended 31 December 2017	-	-	219	11	-	-	230
Transfers between reserves	-	-	(4)	4	-	-	-
Balance at 31 December 2017	656	8,056	7,755	(11,018)	950	43	6,442
Balance at 1 January 2018	656	8,056	7,755	(11,018)	950	43	6,442
Impact of adopting IFRS 9 at 1 January 2018 (note 2.3)	-	-	13	(995)	-	-	(982)
Balance at 1 January 2018, as restated	**656**	**8,056**	**7,768**	**(12,013)**	**950**	**43**	**5,460**
Net profit	-	-	-	33	-	-	**33**
Other comprehensive income	-	-	(161)	-	-	-	**(161)**
Total comprehensive income for the year ended 31 December 2018	**-**	**-**	**(161)**	**33**	**-**	**-**	**(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 (note 25)	-	-	1	(2)	-	-	**(1)**
	-	**-**	**1**	**(4)**	**(950)**	**(1)**	**(954)**
Balance at 31 December 2018	**656**	**8,056**	**7,608**	**(11,984)**	**-**	**42**	**4,378**
	Note 36	Note 36	Note 38		Note 33	Note 37	

Notes on pages 6 to 137 form an integral part of these financial statements

Cash Flow Statement

	Note	Year ended 31 December 2018 € million	2017 € million
Cash flows from operating activities			
Profit/(loss) before income tax		**56**	(24)
Adjustments for :			
Impairment losses relating to loans and advances to customers	23	**606**	716
Other impairment losses, provisions and restructuring costs	14	**137**	143
Depreciation and amortisation	12	**42**	38
Other (income)/losses on investment securities	18	**(159)**	(123)
(Gain)/ loss on sale of subsidiaries, associates and joint ventures		**33**	(19)
Dividends from subsidiaries, associates and joint ventures	9	**(122)**	(131)
Other adjustments		**(26)**	(1)
		567	599
Changes in operating assets and liabilities			
Net (increase)/decrease in cash and balances with central banks		**(31)**	13
Net (increase)/decrease in securities held for trading		**(5)**	(5)
Net (increase)/decrease in due from credit institutions		**(81)**	592
Net (increase)/decrease in loans and advances to customers		**31**	156
Net (increase)/decrease in derivative financial instruments		**(74)**	(183)
Net (increase)/decrease in other assets		**(124)**	11
Net increase/(decrease) in due to central banks and credit institutions		**(5,866)**	(7,833)
Net increase/(decrease) in due to customers		**4,126**	1,337
Net increase/(decrease) in other liabilities		**(44)**	(63)
		(2,068)	(5,975)
Net cash from/(used in) operating activities		**(1,501)**	(5,376)
Cash flows from investing activities			
Acquisition of fixed and intagible assets		**(80)**	(70)
Proceeds from sale of fixed and intangible assets		**3**	52
(Purchases)/sales and redemptions of investment securities		**(21)**	4,796
Acquisition of subsidiaries, associates, joint ventures and participation in capital increases	25,29	**(3)**	(62)
Proceeds from disposal/liquidation/capital decrease of holdings in subsidiaries, associates and joint ventures	25,11	**188**	177
Dividends from investment securities, subsidiaries, associates and joint ventures		**161**	94
Net cash from/(used in) investing activities		**248**	4,987
Cash flows from financing activities			
(Repayments)/proceeds from debt securities in issue	18	**1,245**	441
Purchase of hybrid capital	37	**(1)**	-
Hybrid capital's dividend paid	37	**(3)**	-
Redemption on preference shares, net of expenses		**(4)**	-
Net cash from/(used in) financing activities		**1,237**	441
Net increase/(decrease) in cash and cash equivalents		**(16)**	52
Cash and cash equivalents at beginning of year	18	**506**	454
Cash and cash equivalents at end of year	18	**490**	506

Notes on pages 6 to 137 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 29 March 2019. 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 IFRSs and IFRS Interpretation Committee's (IC) interpretations, issued and effective or issued and early adopted as at the time of preparing these statements.

The financial statements are prepared under the historical cost convention except for the revaluation of the available-for-sale financial assets (policy applicable prior to 1 January 2018), the financial assets measured at fair value through other comprehensive income (policy applicable from 1 January 2018) and financial assets and financial liabilities (including derivative instruments) at fair-value-through-profit-or-loss.

The accounting policies for the preparation of the financial statements have been consistently applied to the years 2018 and 2017, after taking into account the amendments in IFRS described in section 2.1.1 "New and amended standards and interpretations" and the amendments described in section 2.2 "Principal accounting policies" following the adoption of IFRS 9. Where necessary, comparative figures have been adjusted to conform to changes in presentation in the current year.

The preparation of financial statements in conformity with IFRS requires the use of estimates and assumptions 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:

<u>Macroeconomic environment</u>

Greece's real GDP grew by 1.9% in 2018 from 1.5% in 2017, according to the Hellenic Statistical Authority's (ELSTAT) first estimate, while the real GDP growth consensus forecast for 2019 stands at 1.9% (compared to an official target of 2.5%). The unemployment rate in December 2018 was at 18.0%, based on the Hellenic Statistical Authority's (ELSTAT) data (31 December 2017: 20.8%). On the fiscal front, Greece's primary balance is expected to register a surplus of 4.0% of GDP in 2018 according to 2019 Budget, (2017: 3.9% of GDP, according to ELSTAT data) while the respective forecast for 2019 is expected at 3.6% of GDP.

In August 2018, Greece concluded successfully the third economic adjustment program (TEAP) and has entered into the Enhanced Post Program Surveillance (EPPS) under EU Regulation 472/2013, which foresees quarterly reviews by the competent committees of the institutions (EC/ECB/ESM/IMF). The post program surveillance's main purpose is to safeguard financial stability, and continue the process of implementation of structural reforms aiming, among others, to boost domestic growth, jobs creation and to modernize the public sector. The first and second quarterly review under the EPPS were completed at the end of November 2018 and early March 2019 respectively. Delays were observed in the implementation of the structural reforms initially planned for the end of 2018 including, among others, the legal framework of the NPE resolution tools and in particular the household insolvency law. As a result, the European Commission has postponed the release of the first set of policy-contingent debt measures of € 970 million for early April 2019 conditional on the progress of the pending reform items. In this context, a new protection scheme on primary residence was voted by the Greek Parliament on 29 March 2019.The Greek Government has built up a cash buffer of € 26.5 bn until the end of September 2018, out of the European Stability Mechanism (ESM) loan disbursements, GGBs issuances and other sources, in order to facilitate the country's access to the international markets. This buffer suffices for covering the gross financial needs for two years after the end of the program or four years assuming that the current stock of treasury bills will be rolled over. On the back of this environment, Greek sovereign demonstrated market access as evidenced by the successful issuance of a 5-year bond of € 2.5 bn at a yield of 3.6% on 29 January 2019 and a 10-year reference bond of € 2.5 bn at a yield of 3.9% on 6 March 2019.

The decisive implementation of the reforms agreed in the context both of the TEAP and the EPPS, the implementation of medium term debt relief measures in accordance with 21 June 2018 Eurogroup decisions, the mobilization of European Union funding to support domestic investment and job creation, the attraction of foreign and domestic capital and the adoption of an extrovert economic development model will improve the confidence in the prospects of the Greek economy and the further stabilization of the domestic economic environment.

The main risks and uncertainties stemming from the macroeconomic environment are associated with (a) the adherence to established reforms and the possible delays in the implementation of the reforms' agenda in order to meet the EPPS targets and milestones, (b) the impact on the level of economic activity and on the attraction of direct investments from the fiscal and social security-related measures agreed under the reviews of the TEAP, (c) the ability to attract new investments in the country, (d) the timing of a full lift of restrictions in the free movement of capital abroad and the respective impact on the level of economic activity, (e) the possible slow pace of deposits inflows and/ or possible delays in the effective management of non-performing exposures (NPEs) as a result of the macroeconomic conditions in Greece and (f) the geopolitical conditions in the near or in broader region and the external shocks from a slowdown in the regional and/ or global economy. The Group monitors closely the developments in the Greek macroeconomic environment taking into account its direct and indirect exposure to sovereign risk (note 4).

Liquidity risk

In 2018, the expectations for a further improvement of the macroeconomic environment in Greece has enhanced Greece's credibility towards the international markets, improved the domestic economic sentiment and facilitated the return of deposits. Moreover, the restrictions in the free movement of capital within the country have been lifted, while those applied on the transfer of funds abroad have been further relaxed. The prompt implementation of the post-program period's reforms scheme will help further reinstating depositors' confidence, will accelerate the access to the markets for debt issuance and positively influence the financing of the economy.

As at 31 December 2018, the Bank's dependency on Eurosystem financing facilities decreased to € 2.1 bn (of which € 0.5 bn funding from ELA), mainly due to deposits inflows, assets deleveraging, increased market repos on Greek Government securities and two asset backed securities issues sold via a private placement to an international institutional investor (note 33) (31 December 2017: € 10 bn, of which € 7.9 bn from ELA). As at 28 February 2019, the Group has eliminated the use of ELA funding while the total Eurosystem funding further declined to € 1.3 bn. In addition, the increase of deposits by more than € 5 bn in 2018 improved the Group's (net) loans to deposits (L/D) ratio to 92.6% end of December 2018 from 109.6% end of 2017 (Bank 100.6% from 123.4% at the end of 2017).

Solvency risk

On 5 May 2018, the ECB announced the results of the Stress Test (ST) for the four Greek systemic banks, including Eurobank. Based on feedback received by the Single Supervisory Mechanism (SSM), the ST outcome pointed to no capital shortfall and no capital plan needed for the Bank as a result of the exercise.

The Group's Common Equity Tier 1 (CET1) ratio stood at 14.2% (Bank 13.3 %) at 31 December 2018, and the net profit attributable to shareholders amounted to € 91 million (€ 200 million net profit from continuing operations before € 44 million restructuring costs, after tax) for the year ended 31 December 2018, while the Bank's after tax result amounted to a profit of € 33 million. As at 31 December 2018, the Bank has reduced the stock of NPEs by € 2.8 bn since 31 December 2017 to € 15.3 bn which is in line with the revised target submitted to SSM in September 2018 (note 6).

Going forward, the prime target is the successful execution of the Bank's transformation plan consisting of a) the completion of the merger with Grivalia by May 2019 that will enhance Eurobank's capital position and its earning capacity (note 43), b) the acceleration of the NPE reduction plan through a large scale securitization of approximately € 7 bn, the entry of a strategic investor into the capital of Financial Planning Services S.A. ("FPS"), the licensed 100%-owned loan servicer of Eurobank and other initiatives leading the Group's NPE ratio at 16% in 2019 and a single digit by 2021 and c) the achievement of a substantially lower cost of risk as of 2020, which is expected to drive strong sustainable earnings per share (EPS).

Going concern assessment

The Board of Directors, taking into consideration the above factors relating to the adequacy of the Bank's capital and liquidity position, the gradual reduction of the NPEs stock in line with the Bank's operational targets along with the strategic initiatives related to the transformation plan of the Bank, 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

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 2018:

IFRIC 22, Foreign Currency Transactions and Advance Consideration

IFRIC 22 provides requirements about which exchange rate to use in reporting foreign currency transactions that involve an advance payment or receipt. The interpretation clarifies that in this case, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income is the date of the advance consideration, i.e. when the entity initially recognized the non-monetary asset (prepayment asset) or non-monetary liability (deferred income liability) arising from the advance consideration. If there are multiple payments or receipts in advance, the entity must determine a date of transaction for each payment or receipt.

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

IFRS 4, Amendment-Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts

The amendment addresses the accounting consequences of the different effective dates of IFRS 9 'Financial Instruments' and the forthcoming new insurance contracts Standard. It introduces two options for entities that issue insurance contracts: a temporary exemption from applying IFRS 9 and an overlay approach.

The optional temporary exemption from IFRS 9 is available to entities whose activities are predominantly connected with insurance, allowing them to continue to apply IAS 39 'Financial Instruments: Recognition and Measurement' while they defer the application of IFRS 9 until 1 January 2021 at the latest.

The overlay approach is an option for entities that adopt IFRS 9 and issue insurance contracts, to adjust profit or loss for eligible financial assets, effectively resulting in IAS 39 accounting for those designated financial assets. This approach can be used provided that the entity applies IFRS 9 in conjunction with IFRS 4 and classifies financial assets at fair value through profit or loss in accordance with IFRS 9, when those assets were previously classified at amortized cost or as available-for-sale in accordance with IAS 39.

The amendment is not relevant to the Bank's activities, other than through its associate Eurolife ERB Insurance Group Holdings S.A., which has elected the optional temporary exemption from IFRS 9.

IFRS 2, Amendment-Classification and Measurement of Share-based Payment Transactions

The amendment addresses (a) the measurement of cash-settled share-based payments, (b) the accounting for modifications of a share-based payment from cash-settled to equity-settled and c) the classification of share-based payments settled net of tax withholdings.

Specifically, the amendment clarifies that a cash-settled share-based payment is measured using the same approach as for equity-settled share-based payments. It also clarifies that the liability of cash- settled share-based payment modified to equity-settled one is derecognized and the equity-settled share-based payment is recognized at the modification date fair value of the equity instrument granted and any difference is recognized in profit or loss immediately.

Furthermore, a share-based payment net by withholding tax on the employee's behalf (a net settlement feature) is classified as equity settled in its entirety, provided it would have been classified as equity-settled had it not included the net settlement feature.

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

IAS 40, Amendment-Transfers of Investment Property

The amendment clarifies that a transfer of property, including property under construction or development, into or out of investment property should be made only when there has been a change in use of the property. Such a change in use occurs when the property meets, or ceases to meet, the definition of investment property and should be supported by evidence.

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

Annual Improvements to IFRSs 2014-2016 Cycle

The IASB through the 2014-2016 annual improvements cycle, provided a clarification for IAS 28 'Investments in Associates and Joint Ventures': It is clarified that venture capital organizations, mutual funds, unit trusts and similar entities are allowed to elect measuring their investments in associates or joint ventures at fair value through profit or loss. Such election can be performed on an investment-by-investment basis in associates or joint ventures.

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

IFRS 15, Revenue from Contracts with Customers and IFRS 15 Amendments

IFRS 15 establishes a single, comprehensive revenue recognition model for determining when and how much revenue to recognize and replaced existing revenue recognition guidance, including IAS 18 'Revenue', IAS 11 'Construction Contracts' and IFRIC 13 'Customer Loyalty Programs'.

IFRS 15 applies to all contracts with customers, except those in the scope of other standards such as:

• Financial instruments and other contractual rights or obligations within the scope of IFRS 9 'Financial Instruments', IFRS 10 'Consolidated Financial Statements', IFRS 11 'Joint Arrangements', IAS 27 'Separate Financial Statements' and IAS 28 'Investments in Associates and Joint Ventures';
• Lease contracts within the scope of IAS 17 'Leases' (or IFRS 16 'Leases'); and
• Insurance contracts within the scope of IFRS 4 'Insurance Contracts'.

Therefore, interest and fee income integral to financial instruments will continue to fall outside the scope of IFRS 15.

IFRS 15 specifies that revenue should be recognized at an amount that reflects the consideration to which the entity expects to be entitled in exchange for transferring goods or services. It introduces the concept of recognizing revenue for performance obligations as they are satisfied and the control of a good or service (i.e. the ability to direct the use of and obtain the benefits from them), is obtained by the customer. For services provided over time, such as management fee income earned for asset management services provided and variable performance fee income based on the return of the underlying asset at a particular date, consideration is recognized as the service is provided to the customer provided that it is probable that a significant reversal of consideration will not occur.

IFRS 15 was amended in April 2016 to provide several clarifications, including that in relation to the identification of the performance obligations within a contract.

The adoption of the standard and its amendment had no impact on the Bank's financial statements as net interest income, which is a primary revenue stream of the Bank, is not impacted by the adoption of IFRS 15. Furthermore, regarding Bank's revenue from contracts with customers, including fee and commission income, there was no change in the accounting treatment of services provided over time, or transactions executed at point in time, as it is consistent with the Bank's existing accounting policy.

IFRS 9, Financial Instruments

On 1 January 2018, the Bank adopted IFRS 9 'Financial Instruments', which replaced IAS 39, 'Financial Instruments: Recognition and Measurement'. The adoption of IFRS 9 in 2018 resulted in changes in accounting policy in two principal areas, classification and measurement of financial assets and liabilities and impairment of financial assets. The Bank elected, as a policy choice permitted under IFRS 9, to continue to apply hedge accounting in accordance with IAS 39.

Differences arising from the adoption of IFRS 9 have been recognized directly in reserves and retained earnings as of 1 January 2018 and are disclosed in note 2.3. The Bank has not restated comparative information for 2017 for financial instruments in the scope of IFRS 9.

Changes in the classification and measurement

IFRS 9 applies a new classification and measurement approach for all types of financial assets that reflects the entity's business model for managing the assets and their contractual cash flow characteristics.

To determine their classification and measurement category, IFRS 9 requires all financial assets, except equity instruments and derivatives, to be assessed based on a combination of the entity's business model for managing the assets and the instruments' contractual cash flow characteristics. Reclassifications between categories are made only in rare circumstances.

For the purpose of the transition to IFRS 9, the Bank carried out a business model assessment across various portfolios for its debt instruments to determine any potential changes to the classification and measurement. The assessment has been performed based on the facts and circumstances that exist at the date of initial application i.e. 1 January 2018 (see section 2.3.2).

The IAS 39 categories of financial assets (fair value through profit or loss (FVTPL), available for sale (AFS), held-to-maturity (HTM) and Loans and Receivables) have been replaced by:

- Debt instruments measured at amortized cost
- Debt instruments measured at fair value through other comprehensive income (FVOCI), with gains or losses recycled to profit or loss on derecognition
- Equity instruments at FVOCI, with no recycling of gains or losses to profit or loss on derecognition
- Financial assets measured at FVTPL

The Bank may at initial recognition, designate a financial asset at FVTPL in order to eliminate or significantly reduce an accounting mismatch.

Furthermore, on initial recognition of an equity instrument that is not held for trading, an entity may irrevocably elect to present subsequent changes in fair value in Other Comprehensive Income (OCI). This election is made on an investment-by-investment basis.

The IFRS 9 eligibility requirements for applying the fair value option to measure financial liabilities at FVTPL are consistent with those of IAS 39. However, for financial liabilities designated at FVTPL, gains or losses attributable to changes in own credit risk shall be presented in OCI and shall not be subsequently transferred to profit or loss unless such a presentation would create or enlarge an accounting mismatch.

Finally, under IFRS 9, embedded derivatives are no longer separated from a host financial asset. Instead, financial assets are classified based on the business model and their contractual terms. The accounting for derivatives embedded in financial liabilities and in non-financial host contracts has not changed.

The Bank's classification of its financial assets and liabilities is explained in Section 2.2 of this note. The quantitative impact of applying IFRS 9 as at 1 January 2018 is disclosed in note 2.3.2.

Changes to the impairment calculation

The adoption of IFRS 9 has changed significantly the Bank's accounting for the impairment of financial assets by replacing IAS 39 incurred loss approach with a forward-looking expected credit loss (ECL) approach, which requires the use of complex models and significant judgment about future economic conditions and credit behavior. Credit losses are recognized earlier under IFRS 9 compared to IAS 39.

IFRS 9 requires the Bank to record an allowance for credit loss for all financial assets not held at FVTPL, together with loan commitments and financial guarantee contracts, which are off-balance sheet items. The allowance is based on the ECL calculation of the related probability of default of the debtor in the next twelve months unless there has been a significant increase in credit risk since origination of the exposure, when lifetime ECL is measured. If the financial asset meets the definition of purchased or originated credit impaired (POCI), the allowance is based on the change in the ECL over the life of the asset.

Details of the Bank's impairment policy are disclosed in Section 2.2 of this note. The quantitative impact of applying IFRS 9 as at 1 January 2018 is disclosed in note 2.3.2.

Hedge accounting under IFRS 9

IFRS 9 includes a new general hedge accounting model which aligns hedge accounting more closely with risk management. Under the new model, more hedging strategies may qualify for hedge accounting, new hedge effectiveness requirements apply and discontinuation of hedge accounting will be allowed only under specific circumstances. The IASB currently has a separate project for the accounting of macro hedging activities. Until the above project is completed, entities have an accounting policy choice to continue applying the hedge accounting requirements in IAS 39.

The Bank has elected to continue applying IAS 39.

Consequential changes in disclosures (IFRS 7 'Financial Instruments: Disclosures')

Effective from 1 January 2018, due to IFRS 9 transition, these financial statements include transition disclosures, which provide qualitative and quantitative information about the impact from the revised classification and measurement and ECL principles. In addition, these financial statements include, the enhanced classification and measurement, impairment and hedge accounting disclosures as required by the related amendments to IFRS 7 'Financial Instruments: Disclosures'.

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 2018, 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:

IFRS 9, Amendment–Prepayment Features with Negative Compensation (effective 1 January 2019)

The amendment changes IFRS 9 requirements in order to allow measurement of a financial asset at amortized cost or at 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, measurement of these financial assets will be 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 amendment would probably result in the measurement of these financial assets at FVTPL.

The amendment also confirms the modification accounting of financial liabilities under IFRS 9. Specifically, when a financial liability measured at amortized cost is modified without this resulting 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 amendment is not expected to impact the Bank's financial statements.

IFRIC 23, Uncertainty over Income Tax Treatments (effective 1 January 2019)

The interpretation clarifies the application of the recognition and measurement requirements in 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 determined 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 and the entity should assume that a tax authority with the right to examine tax treatments will examine them and will have full knowledge of all relevant information.

If an entity concludes it is probable that the taxation authority will accept an uncertain tax treatment, it should determine its accounting for income taxes consistently with that tax treatment. If it concludes that it is not probable that the 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 most likely amount or the expected value method).

Judgments and estimates made for the recognition and measurement of the effect of 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 is not expected to impact the Bank's financial statements.

IFRS 16, Leases (effective 1 January 2019)

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.

Transition to IFRS 16

The date of initial application of IFRS 16 for the Bank will be 1 January 2019. The Bank has chosen the modified retrospective application of IFRS 16 and therefore comparative information will not be restated.

Upon transition, the Bank will make use of 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 will not be classified as leases under IFRS 16, while the definition set out in IFRS 16 will be applied to all lease contracts entered into or modified on or after 1 January 2019.

Lessee Accounting

In accordance with IFRS 16, at the commencement date of the lease, the Bank as a lessee will recognise right-of-use assets and lease liabilities in the statement of financial position, initially measured at the present value of the future lease payments. The Bank intends to apply this initial measurement principle to all leases, except for those with lease term of 12 months or less - making use of the short-term leases and leases of low-value assets exemptions.

Accordingly, in estimating the impact from IFRS 16 adoption, the Bank expects to recognise right-of-use assets of approximately € 280 million and corresponding lease liabilities of € 280 million arising from leases of properties and vehicles, while no impact is expected on shareholders' equity. The estimated capital impact arising primarily from the increase in risk weighted assets is 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 approximately € 114 million of the above mentioned right-of-use assets and € 114 million of the corresponding lease liabilities relate to properties currently on lease from Grivalia, which will be derecognized upon the completion of the announced merger by absorption of Grivalia by Eurobank (note 43), as the related properties will become own used assets of the combined new group.

With regard to subsequent measurement, the Bank, acting as a lessee, will apply the cost model for the measurement of right-of-use asset. Accordingly, the right-of-use asset will be measured at cost less any accumulated depreciation and accumulated impairment losses and adjusted for the remeasurement of the lease liability.

On the other hand, interest expense will be recognized on the lease liabilities, while their carrying amount will be reduced to reflect the lease payments made. In case of any reassessments or lease modifications specified, the carrying amount of the lease liabilities will be remeasured to reflect revised lease payments.

Lessor Accounting

At inception date of the lease, the Bank, acting as a lessor, will classify each of its leases as either an operating lease or a finance lease based on certain criteria. These criteria are unchanged compared to current accounting as described below.

Finance leases

At commencement date, the Bank will derecognize the carrying amount of the underlying assets held under finance lease, recognize a receivable at an amount equal to the net investment in the lease and recognize, 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 will be calculated as the present value of the future lease payments in the same way as for the lessee.

After commencement date, the Bank will recognize 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 shall also recognize income from variable payments that are not included in the net investment in the lease. After lease commencement, the net investment in a lease will not be remeasured unless the lease is modified or the lease term is revised.

Operating leases

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

The Bank will recognize lease payments as income on a straight-line basis. Also it will recognize 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 will act as both the lessee and lessor of the same underlying asset. The sublease will be a separate lease agreement, in which the intermediate lessor will classify the sublease as a finance lease or an operating lease as follows:

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

Operating lease commitments as at 31 December 2018, presented in accordance with the disclosure requirements of IAS 17 for the minimum lease payments under non-cancellable operating leases, are set out in note 41. Amounts disclosed in the aforementioned note reflect the lease payments over the non-cancellable period only, as determined in accordance with the contractual terms of the leases and the applicable legal provisions regarding the minimum lease period.

Accordingly, as at 31 December 2018, for lease contracts where the Bank is the lessee and have a stated maturity, the non-cancellable operating lease rentals payable are € 107 million (note 41), whereas the total future contractual lease payments are € 225 million.

IAS 28, Amendment – Long Term Interests in Associates and Joint Ventures (effective 1 January 2019)

The amendment clarifies 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 equity accounting.

According to the amendment, 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 amendment does not apply to the Bank's financial statements.

IAS 19, Amendment –Plan Amendment, Curtailment or Settlement (effective 1 January 2019)

The amendment clarifies 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 the change to the plan. Additionally, the amendment includes clarifications about the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling.

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

Annual Improvements to IFRSs 2015-2017 Cycle (effective 1 January 2019)

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. Conversely, if a party obtains joint control, of a business that is a 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' amendment 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 is not expected to impact the Bank's financial statements.

Amendments to References to the Conceptual Framework in IFRS Standards (effective 1 January 2020, not yet endorsed by EU)

In March 2018, the IASB issued its revised Conceptual Framework. This replaces the previous version of the Conceptual Framework issued in 2010. Revisions performed by IASB introduced a new chapter of measurement, updated definitions of an asset/liability and recognition criteria, as well as clarifications on important areas.

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

Amendment 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, narrow the definitions of a business and of outputs, and introduce an optional fair value concentration test.

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

Amendments to IAS 1 and IAS 8: Definition of Material (effective 1 January 2020, not yet endorsed by EU)

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 an 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, which provide financial information about a specific reporting entity. The amendments clarify that materiality will depend on the nature or magnitude of information, or both.

The adoption 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 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.

At its November 2018 meeting, the IASB decided to propose a one-year deferral of the effective date for IFRS 17 to 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 to a newly formed subsidiary 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 in accordance with 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.

In such transactions, 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.

A listing of Bank's associates and joint ventures is set out in note 29.

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 6.3.

Embedded derivatives

Policy applicable from 1 January 2018

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.

Policy applicable before 1 January 2018

Certain derivatives embedded in other financial instruments 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

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, an assessment 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 available-for-sale and as debt securities lending financial assets (policy applicable before 1 January 2018), as FVOCI and amortized cost financial assets (policy applicable after 1 January 2018), 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 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.

Furthermore, cash flow hedging is used for 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 rates, eliminating cash flow variability.

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, 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.

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 21.

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

Policy applicable from 1 January 2018

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 POCI financial assets it is adjusted for the expected credit loss allowance, while 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.

Policy applicable before 1 January 2018

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 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 carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Bank estimates cash flows considering all contractual terms of the financial instrument but does not consider future credit losses. The 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.

Once a financial asset has been written down as a result of an impairment loss, interest income is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

(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.

Applicable from 1 January 2018

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

Property held for rental yields and/or capital appreciation that is not occupied by the Bank is classified as investment property. Investment property is carried at cost less accumulated depreciation and accumulated impairment losses, therefore, the policy described above applies also to this category of assets.

Reclassifications between own used 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) 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.

(ii) 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

Non-financial assets, including property, plant and equipment, investment property 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 subsidiaries associates and joint ventures are determined in accordance with this accounting policy.

2.2.9 Financial assets

Policy applicable from 1 January 2018

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:

(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:

(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 ’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 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 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.

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 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 considered to be transferred if, and only if, the transferee has the practical ability to sell the asset in its entirety to unrelated third party. On derecognition of a financial asset, the difference between the carrying amount of the asset and the sum of (i) the consideration received and (ii) any cumulative gain or loss that had been recognized in OCI for financial assets at FVOCI, is recognized in income statement.

The Bank may modify the contractual terms of a financial asset 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.

In cases where the contractual cash flows of a financial asset have been modified and the modification is considered substantial enough, the original financial asset is then derecognized. 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.

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.

Policy applicable before 1 January 2018

The Bank classifies its financial assets in the following IAS 39 categories: financial assets at fair-value-through-profit-or-loss, loans and receivables, held-to-maturity investments, and available-for-sale financial assets. Management determines the classification of its financial instruments at initial recognition.

(i) Financial assets at fair value through profit or loss

This category has two sub-categories: financial assets held for trading, and those designated at fair value through profit or loss upon initial recognition. A financial asset is classified as held for trading if acquired principally for the purpose of selling or repurchasing in the short term or if it is part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking. Derivatives are also categorized as held for trading unless they are designated and effective hedging instruments.

The Bank designates certain financial assets upon initial recognition as at fair-value-through-profit-or-loss when any of the following apply:

(a) it eliminates or significantly reduces measurement or recognition inconsistencies; or

(b) financial assets share the same risks with financial liabilities and those risks are managed and evaluated on a fair value basis; or

(c) structured products containing embedded derivatives that could significantly modify the cash flows of the host contract.

(ii) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, other than those that the Bank upon initial recognition designates at fair-value-through-profit-or-loss or as available-for-sale. Securities classified in this category are presented in Investment Securities under Debt Securities Lending portfolio.

(iii) Held-to-maturity

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Bank has the positive intention and ability to hold to maturity. If the Bank were to sell other than an insignificant amount of held-to-maturity assets, the entire category would be tainted and reclassified as available-for-sale.

(iv) Available-for-sale

Available-for-sale investments are those intended to be held for an indefinite period of time, which may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices.

Accounting treatment and calculation

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 are initially recognized at fair value plus transaction costs for all financial assets not carried at fair-value-through-profit-or-loss.

Available-for-sale financial assets and financial assets at fair-value-through-profit-or-loss are subsequently carried at fair value. Loans and receivables and held-to-maturity investments are carried at amortized cost using the effective interest method. Gains and losses arising from changes in the fair value of the 'financial assets at fair-value-through-profit-or-loss' category are included in the income statement in the period in which they arise. Gains and losses arising from changes in the fair value of available-for-sale financial assets are recognized directly in equity, until the financial asset is derecognized or impaired at which time the cumulative gain or loss previously recognized in equity is recognized in profit or loss. However, interest calculated using the effective interest rate method is recognized in the income statement.

Dividends on equity instruments are recognized in the income statement when the entity's right to receive payment is established.

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. The control is considered to be transferred if, and only if, the transferee has the practical ability to sell the asset in its entirety to unrelated third party.

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 recognized. For a description of the events that would constitute a substantial modification of an asset, following a modification refer to section 2.2.13 below. On derecognition of a financial asset, the difference between the carrying amount of the asset and the sum of (i) the consideration received and (ii) any cumulative gain or loss that had been recognized in OCI for available-for-sale financial assets, is recognized in income statement.

2.2.10 Reclassifications of financial assets

Policy applicable from 1 January 2018

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.

Policy applicable before 1 January 2018

The Bank may choose to reclassify a non-derivative financial asset held for trading out of the held-for-trading category if the financial asset is no longer held for the purpose of selling it in the near-term. Financial assets other than those that meet the definition of loans and receivables may be reclassified out of the held for trading category only in rare circumstances arising from a single event that is unusual and highly unlikely to recur in the near-term. In addition, the Bank may choose to reclassify financial assets that would meet the definition of loans and receivables, out of the held-for-trading or available-for-sale categories, if the Bank has the intention and ability to hold these financial assets for the foreseeable future or until maturity at the date of reclassification.

Reclassifications are made at fair value as of the reclassification date. Fair value becomes the new cost or amortized cost as applicable, and no reversals of fair value gains or losses recorded before reclassification date are subsequently made. Effective interest rates for financial assets reclassified to loans and receivables and held-to-maturity categories are determined at the reclassification date. Further increases in estimates of cash flows adjust effective interest rates prospectively.

2.2.11 Financial liabilities

Financial liabilities - Classification and measurement

Policy applicable from 1 January 2018

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 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.

Policy applicable before 1 January 2018

The Bank classifies its financial liabilities in the following categories: financial liabilities measured at amortized cost and financial liabilities 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.

The Bank designates financial liabilities at fair-value-through-profit-or-loss when any of the following apply:

(a) it eliminates or significantly reduces measurement or recognition inconsistencies; or
(b) financial liabilities share the same risks with financial assets and those risks are managed and evaluated on a fair value basis; or
(c) structured products containing embedded derivatives that could significantly modify the cash flows of the host contract.

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 6.3).

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

Policy applicable from 1 January 2018

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, 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 6.2.1.2). 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 asset, 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, the measurement of impairment losses is performed on an individual debt security 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 is 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, 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.

Policy applicable before 1 January 2018

The Bank assesses at each reporting date whether there is objective evidence that a financial asset or group of financial assets, not carried at fair value through profit or loss, is impaired. A financial asset or a group of financial assets is impaired and an impairment loss is incurred if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the financial asset (a loss event) and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Impairment indicators

For the Bank's retail loan exposures, objective evidence that a loan or group of loans is impaired refers to observable data that comes to the attention of the Bank about the following loss events:

- significant financial difficulty of the borrower, significant reduction of personal and/or family income or loss of job;
- a default or breach of contract;
- significant changes in the financial performance and behavior of the borrower (for example, a number of delayed contractual payments);
- measurable decrease in the estimated future cash flows of a group of loans through a negative payment pattern such as missed payments or a decrease in property prices;
- the Bank granting to the borrower, for economic or legal reasons relating to the borrower's financial difficulty, a concession that the lender would not otherwise consider, such as a reduction of the borrower's monthly installment for a specific period of time, or a temporary or permanent reduction of interest rate;
- it is becoming probable that the borrower will enter into bankruptcy status or other financial reorganization; and
- loss events that could affect the ability of the borrower to repay contractual obligations within the agreed time, such as serious illness, disability or death of the obligor or a family member.

For all other financial assets including wholesale loan exposures, the Bank assesses on a case-by-case basis whether there is any objective evidence of impairment using the following criteria:

- significant financial difficulty of the issuer or borrower;
- a default of breach of contract;
- significant changes in the financial performance of the borrower that affect the borrower's ability to meet its debt obligations, such as:
  -operating losses;
  -working capital deficiencies; and
  -the borrower having a negative equity.
- other facts indicating a deterioration of the financial performance of the borrower, such as a breach of loan covenants or other terms, or a partial write-off of the borrower's obligations due to economic or legal reasons relating to his financial status;
- significant changes in the value of the collateral supporting the obligation;
- the Bank granting to the borrower, for economic or legal reasons relating to the borrower's financial difficulty, a concession that the lender would not otherwise consider, such as a reduction of the obligors monthly installment for a specific period of time, or a temporary or permanent reduction of interest rate;
- it is becoming probable that the borrower will enter into bankruptcy or other financial reorganization;
- significant adverse changes in the borrower's industry or geographical area that could affect his ability to meet its debt obligations;
- any material facility at the debtor level failing beyond 90 days past due;
- market related information including the status of the borrower's other debt obligations; and
- a significant downgrade in the internal or external credit rating of the borrower's financial instruments when considered with other information.

(i) Assets carried at amortized cost

Impairment assessment

The Bank first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant and collectively for financial assets that are not individually significant. If there is no objective evidence of impairment for a financial asset, the Bank includes it in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Impairment losses recognized for financial assets for which no objective evidence of impairment exists (incurred but not reported loss-IBNR), represent an interim step pending to the identification of impairment losses of individual assets in the group. As soon as information is available that specifically identifies losses on individually impaired assets in the group, those assets are removed from it.

Financial assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognized are not included in a collective assessment of impairment.

In determining whether a loan is individually significant for the purposes of assessing impairment, the Bank considers a number of factors, including the importance of the individual loan relationship and how it is managed, the size of the loan, and the product line. Consequently, loans to wholesale customers and financial institutions, as well as investment securities are generally considered as individually significant. Retail lending portfolios are generally assessed for impairment on a collective basis as they consist of large homogenous portfolios; exposures that are managed on an individual basis are assessed individually for impairment.

The Bank assesses at each reporting date whether there is objective evidence of impairment.

Impairment measurement

If there is objective evidence that an impairment loss on a financial asset carried at amortized cost has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of its estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. If a financial asset has a variable interest rate, the discount rate for measuring the impairment loss is the current effective interest rate determined under the contract. The carrying amount of the asset is reduced through the use of an allowance account for loans and advances or directly for all other financial assets, and the amount of the loss is recognized in the income statement. As a practical expedient, the Bank may measure impairment on the basis of an instrument's fair value using an observable market price.

The present value of the estimated future cash flows of a collateralized financial asset reflects the cash flows that may result from foreclosure less costs for obtaining and selling the collateral, whether or not foreclosure is probable.

For collective impairment purposes, the financial assets are grouped on the basis of similar credit risk characteristics (i.e., on the basis of the Bank's grading process that considers asset type, industry, geographical location, collateral type, past-due status and other relevant factors). Those characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the borrowers' ability to pay all amounts due according to the contractual terms of the assets being evaluated.

Future cash flows of a group of financial assets that is collectively assessed for impairment are estimated on the basis of the contractual cash flows of the assets in the group and historical loss experience for assets with credit risk characteristics similar to those in the group.

Estimates of changes in the future cash flows for a group of financial assets should reflect and be directionally consistent with changes in related observable data from period to period (for example, changes in unemployment rates, property prices, payment status, or other factors indicative of changes in the probability of losses in the group and their magnitude). Historical loss experience is adjusted on the basis of current observable data to reflect the effects of conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not exist currently. The methodology and assumptions used for estimating the future cash flows are reviewed regularly by the Bank to reduce any differences between loss estimates and actual loss experience.

Reversals of impairment

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the borrower's credit rating), the previously recognized impairment loss is reversed by adjusting the allowance account or the asset's carrying amount, as appropriate. The amount of the reversal is recognized in the income statement.

Write-off of loans and advances

A loan and the associated impairment allowance are written off when there is no realistic prospect of recovery. The Bank considers all relevant information including the occurrence of a significant change in the borrower's financial position to such extent that the borrower can no longer pay his obligation.

The timing of write-off is mainly dependent on whether there are any underlying collaterals, their foreclosure processes, as well as the Bank's estimates of the collectible amounts. Especially for collateralized exposures, the timing of write-off maybe delayed due to various legal impediments. The number of days past due is considered by the Bank as an indicator, however it is not regarded as a determining factor.

Unpaid debt continues to be subject to enforcement activity even after it is written-off, except for cases where it is clearly stipulated in debt forgiveness programs.

Subsequent recoveries of amounts previously written off decrease the amount of the impairment losses for loans and advances in the income statement.

Loan modifications

Modifications of loans' contractual terms may arise due to various factors, such as changes in market conditions, customer retention and other factors, as well as potential deterioration of the borrower's financial condition. Forbearance occurs in the cases where the contractual payment terms of a loan have been modified due to the deterioration of the borrower's financial position and the Bank has granted a concession by providing more favorable terms and conditions that it would not otherwise consider had the borrower not been in financial difficulties. Other renegotiations, more of a business nature, are not considered as forbearance measures.

Forbearance measures usually do not lead to derecognition of the loan, unless, in accordance with accounting policy 2.2.9 'Financial assets', the contractual terms of the new loan contract are assessed to be substantially different from those under the original loan, representing the expiry of the rights to the cash flows of the original loan. In this case the initial loan is derecognized and a new loan is recognized at fair value with any difference between the carrying amount of the derecognized asset and the fair value of the new loan recognized in the Bank's income statement.

Modifications that may not result in derecognition include:

- reduced or interest-only payments;
- payment holidays, grace period;
- extended payment periods under which the original term of the loan is extended;
- capitalization of arrears whereby arrears are added to the principal balance; and
- reduction in interest rates.

If the assessment of the forborne loan's modified terms do not result in derecognition, the loan is assessed for impairment as the forbearance measures represent a concession that the Bank would not otherwise consider. The impairment loss is measured in accordance with the Bank's impairment policy for forborne loans (note 6.2.1.2 (d)).

Modifications that may result in derecognition include:

- when an uncollateralized loan becomes fully collateralized;
- debt consolidations, whereby existing loan balances of the borrower are combined in a single loan;
- the removal or addition of conversion features to the loan agreement;
- a change in currency of principal and/or interest denomination; and
- any other changes that cause the terms under the new contract to be considered substantially different from the original loan's terms.

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.

(ii) Available-for-sale assets

The Bank assesses at each reporting date whether there is objective evidence that an asset classified as available for sale is impaired. Particularly, in case of equity investments, a significant or prolonged decline in the fair value of the security below its cost is also considered in determining whether the assets are impaired.

If any such evidence exists for available-for-sale financial assets, the cumulative loss-measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognized in profit or loss-is removed from equity and recognized in the income statement. Impairment losses recognized in the income statement on equity investments are not reversed through the income statement. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss is reversed through the income statement.

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

(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 fixed assets, 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 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 15.

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) members of key management personnel of the Bank, their close family members and entities controlled or jointly controlled by the abovementioned persons;
(c) associates and joint ventures of the Bank; and
(d) 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

Policy applicable from 1 January 2018

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.

Policy applicable before 1 January 2018

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 in the financial statements at fair value. Subsequent to initial recognition, the Bank's liabilities under such guarantees are measured at the higher of the initial measurement, less amortization calculated to recognize in the income statement the fee income earned on a straight line basis over the life of the guarantee, and the best estimate of the expenditure required to settle any financial obligation arising at the reporting date. These estimates are determined based on experience of similar transactions and history of losses, supplemented by management's judgment.

Furthermore, commitments to extend credit 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. The Bank recognizes a provision in accordance with IAS 37 only when the commitment contract can be considered to be onerous.

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 IFRS 9 'Financial Instruments' - Impact of adoption

2.3.1 Adoption of IFRS 9

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 Bank applied the Standard's exemption not to restate comparative figures for prior periods; therefore the Bank's 2017 comparatives are presented on an IAS 39 basis. 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. The detailed effects of the adoption of IFRS 9 on 1 January 2018 are presented in note 2.3.2.

A Group-wide IFRS 9 Program, led jointly by Group Risk and Group Finance, was initiated in 2015 to ensure a robust and high quality implementation in compliance with the requirements of the Standard and respective regulatory guidance.

Overall governance was achieved through a central Program Management Office (PMO) that coordinates the implementation of the Program among the various stakeholders and was responsible for the day-to-day management tasks, as well as two management committees, namely the Steering Committee and the Technical Committee. The Steering Committee, which comprised senior staff from all the main functions of the Group, was mandated to oversee the implementation in accordance with the Standard, monitor timeliness and the quality of the Program's deliverables, review program's results, approve deliverables and changes in the scope of the program where appropriate, and regularly informed the Executive Board, the Board Risk Committee, the Audit Committee and the Board of Directors on the Program's implementation progress. The Technical Committee was composed of Subject Matter Experts responsible for evaluating key technical issues and analyzing proposed changes in accounting policies and risk management methodologies for the Steering Committee before they were submitted and approved by the competent bodies of the Bank.

Reflecting the scale and complexity of the implementation plan, the Program was structured with various project teams (Group Finance, Group Risk Management, Information Systems, Internal Audit, Lending Business Units, Troubled Assets Group, Operations, Global Markets & Treasury and International General Division) dedicated to the various elements associated with the implementation of the Standard. These teams were supported by two external consultancy firms.

The implementation for the Bank's foreign subsidiaries was managed locally with the establishment of local PMOs and Steering Committees. Progress was monitored by the central PMO and the central Steering Committee in the Head Office, providing support and guidance to ensure consistent implementation within the Group.

Moreover, the Group participated in the IFRS 9 thematic review conducted by the European Central Bank on the evaluation of the Group's preparedness, the impact of the new accounting principles on processes, infrastructure and regulatory capital. In this context, well-evidenced assurance activities have been carried out by 2017's external auditors on Group's IFRS 9 implementation policies as well as significant audit work performed by the Group's internal auditors

The Group is committed to ensure a high quality implementation and ongoing application of IFRS 9 which ensures sound governance and internal control framework in the context of the IFRS 9 Program, taking also into consideration all existing frameworks related to risk management and corporate governance. Specifically, the PMO and Management have been involved in the monitoring and oversight of the IFRS 9 application throughout the current financial year, which is the year of adoption. In addition, the Group has enhanced the processes that are involved in the ECL calculation in order to ensure robust governance, proper monitoring by the Group's existing functions, as well as alignment with the Bank's overall risk framework and supervisory expectations.

Educational workshops to the involved stakeholders are conducted on an ongoing basis on the impact of IFRS 9 to the Group's lending practices and day-to-day operational activities in order to ensure that the new requirements are well understood and will be applied consistently across the Group, thus embedding the impacts of IFRS 9 to the day to day operations and overall business strategy.

2.3.2 Transition to IFRS 9 – Impact

The impact of transitioning to IFRS 9 amounts 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. In the fourth quarter of 2018, following the reassessment of the recoverability of deferred tax assets, the Bank has recognized € 27 million DTA, affecting the income statement.

Further analysis of the IFRS 9 impact is presented below.

(i) *Re-classification and re-measurement of carrying amounts upon IFRS 9 transition*

For the purpose of the transition to IFRS 9, the Bank carried out a business model assessment across various portfolios for its debt instruments portfolios to determine any potential changes to the classification and measurement. The assessment has been performed based on the facts and circumstances that existed at the date of initial application i.e. 1 January 2018.

The table below discloses the changes in the carrying amounts and the classifications of financial assets and financial liabilities upon transition to IFRS 9 as of 1 January 2018.

	IAS 39			Remeasurement		IFRS 9	
Financial Assets	Category	Amount € million	Reclassification € million	ECL € million	Other € million	Amount € million	Category
Cash and balances with central banks	*Loans and receivables*						*Amortised cost*
Closing balance 31.12.2017		372					
Remeasurement							
Opening balance 1.1.2018		**372**				**372**	
Due from credit institutions	*Loans and receivables*						*Amortised cost*
Closing balance 31.12.2017		2,867					
Reclassifications to			209				*Other Liabilities*
Remeasurement				(1)			
Opening balance 1.1.2018		**2,867**	**209**	**(1)**		**3,075**	
Loans and advances to customers measured at amortised cost	*Loans and receivables*						*Amortised cost*
Closing balance 31.12.2017		30,866					
Reclassifications to			(55)				*FVTPL (mandatory)*
Remeasurement				(918)			
Opening balance 1.1.2018		**30,866**	**(55)**	**(918)**		**29,893**	
Loans and advances to customers measured at FVTPL							*FVTPL (mandatory)*
Reclassifications from	*Loans and receivables*		55				
Remeasurement					(3)		
Opening balance 1.1.2018			**55**		**(3)**	**52**	
Total loans and advances to customers		**30,866**	**-**	**(918)**	**(3)**	**29,945**	
Debt securities lending portfolio	*Loans and receivables*						
Closing balance 31.12.2017		1,624					
Reclassifications to			(1,043)				Amortised cost
			(481)				*FVOCI*
			(100)				*FVTPL (mandatory)*
Opening balance 1.1.2018		**1,624**	**(1,624)**			**-**	
Held-to-maturity portfolio	*Held-to-maturity*						
Closing balance 31.12.2017		108					
Reclassifications to			(108)				*FVOCI*
Opening balance 1.1.2018		**108**	**(108)**			**-**	
Debt securities measured at amortised cost							*Amortised cost*
Reclassifications from/ Remeasurements	*Loans and receivables*		1,043	(55)	5		
Opening balance 1.1.2018			**1,043**	**(55)**	**5**	**993**	

	IAS 39			Remeasurement		IFRS 9	
Financial Assets	Category	Amount € million	Reclassification € million	ECL € million	Other € million	Amount € million	Category
AFS portfolio	*Available for sale*						
Closing balance 31.12.2017		4,884					
Reclassifications to			(4,822)				*FVOCI - Debt*
			(62)				*FVTPL - Equity*
Opening balance 1.1.2018		**4,884**	**(4,884)**			**-**	
Debt securities measured at FVOCI							*FVOCI*
Reclassifications from/ Remeasurements	*AFS*		4,822				
	Loans and receivables		481		2		
	Held-to-maturity		108		(5)		
Opening balance 1.1.2018			**5,411**		**(3)**	**5,408**	
Investment securities mandatorily at FVTPL							*FVTPL (mandatory)*
Reclassifications from/ Remeasurements	*Loans and receivables*		100		(1)		
	AFS - Equity		62				
	FVTPL - Equity		1				
Opening balance 1.1.2018			**163**		**(1)**	**162**	
Investment in equity securities at FVOCI							
Reclassifications from	*AFS*		-			-	FVOCI
Opening balance 1.1.2018			**-**			**-**	
Total investment securities		**6,616**	**1**	**(55)**	**1**	**6,563**	
Securities held for trading	*FVTPL*						*FVTPL*
Closing balance 31.12.2017		13					
Reclassifications to			(1)				*FVTPL - Equity*
Opening balance 1.1.2018		**13**	**(1)**			**12**	
Derivative financial instruments (assets)	*FVTPL*						*FVTPL*
Closing balance 31.12.2017		1,884					
Remeasurement							
Opening balance 1.1.2018		**1,884**				**1,884**	
Other Assets	*Loans and receivables*						*Amortized cost*
Closing balance 31.12.2017		1,608					
Remeasurement				(6)			
Opening balance 1.1.2018		**1,608**		**(6)**		**1,602**	

	IAS 39			Remeasurement		IFRS 9	
Financial Liabilities	**Category**	**Amount € million**	**Reclassification € million**	**ECL € million**	**Other € million**	**Amount € million**	**Category**
Due to central banks	*Amortised cost*						*Amortised cost*
Closing balance 31.12.2017		9,994					
Opening balance 1.1.2018		**9,994**				**9,994**	
Due to credit institutions	*Amortised cost*						*Amortised cost*
Closing balance 31.12.2017		7,168					
Opening balance 1.1.2018		**7,168**				**7,168**	
Due to customers measured at FVTPL	FVTPL (designated)						
Closing balance 31.12.2017		4					
Reclassifications to			(4)				*Amortised cost*
Opening balance 1.1.2018		**4**	**(4)**			**-**	
Due to customers measured at amortised cost	*Amortised cost*						*Amortised cost*
Closing balance 31.12.2017		25,011					
Reclassifications from	FVTPL		4				
Remeasurement					(0)		
Opening balance 1.1.2018		**25,011**	**4**		**(0)**	**25,015**	
Total due to customers		**25,015**	**-**		**(0)**	**25,015**	
Debt securities in issue measured at FVTPL	*FVTPL (designated)*						
Closing balance 31.12.2017		-					
Reclassifications to			-				*Amortised cost*
Opening balance 1.1.2018		**-**	**-**			**-**	
Debt securities in issue measured at amortised cost	*Amortised cost*						*Amortised cost*
Closing balance 31.12.2017		503					
Reclassifications from							
Remeasurement	FVTPL						
Opening balance 1.1.2018		**503**				**503**	
Total debt securities in issue		**503**				**503**	
Derivative financial instruments (liabilities)	*FVTPL*						*FVTPL*
Closing balance 31.12.2017		1,850					
Remeasurement					0		
Opening balance 1.1.2018		**1,850**			**0**	**1,850**	
Other Liabilities							
Closing balance 31.12.2017		476					
Reclassifications from	*Loans and receivables*		209				
Opening balance 1.1.2018		**476**	**209**			**685**	
Deferred income tax assets/ (liabilities)							
Closing balance 31.12.2017		4,846					
Remeasurement							
Opening balance 1.1.2018		**4,846**			-	**4,846**	
Total IFRS 9 Impact				**(980)**	**(2)**		

As a result of the transition to IFRS 9, the most significant changes in classification and measurement of the financial assets and liabilities of the Bank are as follows:

• Loans and advances to banks and customers measured at amortized cost under IAS 39, are also measured at amortized cost under IFRS 9, except for a non-significant amount (0.2%) loans and advances to customers of € 55 million, which has been reclassified to FVTPL (mandatorily).

• All available-for-sale, under IAS 39, debt securities of carrying amount € 4,822 million are measured at FVOCI under IFRS 9.

• Held-to-maturity investment securities of € 108 million measured at amortized cost under IAS 39, are measured at FVOCI under IFRS 9.

• Debt securities lending portfolio of € 1,524 million measured at amortized cost under IAS 39, are measured at amortized cost or FVOCI under IFRS 9 depending on the business model within which they are held.
• Limited cases of debt securities of carrying amount € 100 million failed the SPPI test and therefore, are measured at FVTPL under IFRS 9.
• Equity securities of carrying amount € 62 million classified as available-for-sale under IAS 39 are measured at FVTPL under IFRS 9.
• Trading and derivative assets of € 13 million and € 1,884 million respectively measured at FVTPL under IAS 39, are also measured at FVTPL under IFRS 9.
• Financial liabilities that are designated at FVTPL under IAS 39 (structured deposits) are measured at amortized cost, while embedded derivatives are separated from the host contracts where appropriate. The Bank has revoked the designation as permitted by IFRS 9 and the embedded derivatives are fully hedged economically with offsetting positions in standalone derivative instruments.
• Provisions for intragroup financial guarantees of € 209 million, which under IAS 39 were presented within due from credit institutions, are presented within provisions of other liabilities as of 1 January 2018.

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)**

The following table reconciles the prior period's closing impairment allowance for Loans and advances to customers and Debt Securities measured in accordance with the IAS 39 incurred loss model and the provisions for credit related commitments, in accordance with IAS 37, to the new impairment allowance measured in accordance with the IFRS 9 expected loss model at 1 January 2018.

	31 December 2017 as per IAS 39/IAS 37	as at 1 January 2018 as per IFRS 9			
		Remeasurement			
	Provision for impairment[1] € million	12-month ECL € million	Lifetime ECL not credit-impaired € million	Lifetime ECL credit-impaired € million	Loss Allowance under IFRS 9 € million
Loans and advances to customers at amortised cost [2]	8,986	(20)	451	487	**9,904**
Debt securities at amortised cost	-	2	53	-	**55**
Debt securities at FVOCI	-	11	1	-	**12**
Total	**8,986**	**(7)**	**505**	**487**	**9,971**

(1) IAS 39/IAS 37 provision for impairment excludes € 31 million provisions for lending exposures at FVTPL.

(2) As at 1 January 2018, the impairment allowance on loans and advances to customers at amortised cost includes an amount of € 122 million for credit related commitments.

Additional loss allowance of € 985 million is recognized as a result of the transition to IFRS 9 for the said instruments. The loss allowance relating to credit losses of debt securities at FVOCI (€ 12 million) is recognized in other comprehensive income and does not reduce the carrying amount of the debt securities in the balance sheet.

(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. The full impact is expected as of 1 January 2023. As a consequence, CET1 ratio has been reduced approximately by 25 basis points on the first year of IFRS 9 adoption, corresponding to a reduction of € 120 million in regulatory capital by applying regulatory transitional arrangements.

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

Policy applicable from 1 January 2018

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 of 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 of 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 of 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 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 2018, the arithmetic averages of the scenarios' probability-weighted annual forecasts from 2019 to 2022, are set in the following table:

Key macroeconomic indicator	Arithmetic average (2019-2022) probability-weighted annual forecast
Gross Domestic Product	1.74%
Unemployment	17.72%
Residential property prices' index	1.70%
Commercial property prices' index	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 table 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 (2019-2023):

Sensitivity scenario				Impact				
	Combined change %				in € million		% of allowance	
Key macroeconomic indicators	Positive change	Adverse change		Lending Portfolio	Positive change	Adverse change	Positive change	Adverse change
GDP growth	+30%	-30%	change of annual forecasts	Wholesale lending	-40	50	-1.27	+1.59
Unemployment Rate	-6.5%	+6.5%	change of annual forecasts	Retail lending	-105	123	-1.93	+2.26
Property indices (RRE/CRE)	+2%	-2%	change of index adjusted real estate collateral market	**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).

Policy applicable before 1 January 2018

The Bank reviews its loan portfolios to assess whether there is objective evidence of impairment on an ongoing basis. This assessment is performed individually for loans and advances that are individually significant and collectively (a) for loans and advances that are not individually significant and (b) for those that are individually significant but were found not to be impaired following the individual assessment. Management is required to exercise judgment in making assumptions and estimates when calculating the present value of the cash flows expected to be received on both individually and collectively assessed loans and advances.

Individual impairment assessment

For loans assessed on an individual basis, mainly the Bank's wholesale lending portfolio, management uses its best estimate to determine the present value of the cash flows that are expected to be received. In estimating these cash flows, management makes judgments about the borrower's financial position and the net realizable value of any underlying collaterals. Expected recoveries from real estate collaterals may be affected from the downward trend in the properties' market value. A 5% decline in the estimated recovery values of all types of real estates' collaterals used for the measurement of the impairment allowance of the Bank's wholesale lending portfolio, would give rise to an additional impairment loss in 2017 of approximately € 93 million.

Each individually assessed loan for impairment is assessed on a case-by-case basis (in cooperation between Credit Risk Management function and the business units) and subsequently it is independently approved by the Credit Risk Management function.

Collective impairment assessment

Collective impairment allowance is established for (a) groups of non-impaired or impaired retail homogenous loans that are not considered individually significant and (b) groups of corporate or retail loans that are individually significant but that were not found to be individually impaired.

In determining whether an impairment loss should be recorded in the income statement, management makes judgments as to whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows of a loan portfolio before the decrease can be identified on an individual loan basis in that portfolio. This evidence may include observable data indicating that there has been an adverse change in the payment status of borrowers in a group, or national or local economic conditions that correlate with defaults on assets in the group.

In assessing the need for collective impairment, management considers factors such as credit quality, portfolio size, concentrations and economic factors. Management's estimates are based on historical loss experience for assets with similar credit risk characteristics to those in the loan portfolio under assessment when scheduling its future cash flows. Management also applies significant judgment to assess whether current economic and credit conditions are such that the actual level of impairment loss is likely to be greater or lower than that suggested by historical experience. In normal circumstances, historical loss experience provides objective and relevant information in order to assess the loss within each loan portfolio. In other circumstances, historical loss experience provides less relevant information, for example when recent trends in risk factors are not fully reflected in the historical information. Where changes in economic, regulatory and behavioral conditions result in most recent trends in portfolio risk factors not being fully reflected in the impairment calculation model used, the Bank adjusts the impairment allowance derived from historical loss experience accordingly.

The uncertainty inherent in the estimation of impairment loss is increased in the current macroeconomic environment, and is sensitive to factors such as the level of economic activity, bankruptcy rates, geographical concentrations, changes in laws and regulations, property prices and level of interest rates.

For the Bank's mortgage portfolios, the recovery rates, which are calculated based on statistical models, reflect the management's best estimate regarding the net realizable value of residential properties held as collateral as well as the timing foreclosure is expected to occur, which in turn is impacted by the local legal framework. Both the amount and timing of expected cash flows have been affected by the reduction in the level of activity in the real estate market and the changes in the local tax and legal environment in Greece. A 3% decline in the estimated recovery rates used for the measurement of the impairment allowance of the Bank's mortgage portfolio, would give rise to an additional impairment loss in 2017 of approximately € 138 million.

For the rest of retail portfolios, statistical analysis of historical loss experience is the primary tool used in order to determine future customer behavior and payment patterns. Due to the stressed macroeconomic environment during the last years, depending on the portfolio under examination, there is a level of uncertainty in terms of the level of future cash flows as well as the time that these cash flows will come. With regards to unsecured consumer and small business exposures, management exercises judgment to determine the assumptions underlying to the applicable recovery rates, which are calculated based on statistical models and affected by the existing economic conditions. A 5% decrease in the estimated recovery rates used for the measurement of the impairment allowance of the Bank's unsecured consumer portfolio would give rise to an additional impairment loss in 2017 of approximately € 27 million. The same decrease in the small business lending portfolio's recovery rates would give rise to an additional impairment loss of approximately € 44 million.

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 6.3.

3.3 Impairment of available-for-sale equity investments

Policy applicable before 1 January 2018

For available-for-sale equity investments, a significant or prolonged decline in the fair value below cost is an objective evidence of impairment. In order to determine what is significant or prolonged, the Bank's management exercises judgment. In this respect, the Bank regards a decline to be 'significant' when the fair value of quoted equities is below cost by more than 30% to 40% depending on the equity's index and 'prolonged' when the market price is below the cost price for a twelve- month period. The Bank also evaluates among other factors, the historic volatility in the share price, the financial health of the investee, the industry and sector performance, changes in technology, and operational and financing cash-flows.

3.4 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 both for loans 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 loans 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 loans, 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 both lending exposures and debt securities.

3.5 Income taxes

The Bank is subject to income taxes and estimates are required in determining the provision for income taxes. 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 provisions in the period in which such determination is made. Further information in relation to the above is provided in note 15.

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 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 2018, 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 January 2018 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 2020 and b) the update of the Plan for the period till the end of 2021 that was submitted to the Board of Directors and the Hellenic Financial Stability Fund (HFSF) in December 2018. 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.

As at 31 December 2018, an amount of € 62 million has been recognized in respect to unused tax losses using the Bank's best estimation and judgment as described above. Further information in respect of the recognized deferred tax assets and the Bank's assessment for their recoverability is provided in note 16.

3.6 Retirement benefit obligations

The present value of the retirement benefit obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions, such as the discount rate and future salary increases. Any 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 35.

3.7 Investment properties and repossessed collateral

The Bank reviews its investment properties portfolio to assess whether there is an indication of impairment, such as a decline in the market prices and level of activity for properties of different nature and location, at each reporting date. If such an indication exists, management is required to exercise judgment in estimating the fair value less cost to sell of the investment properties. The fair values are determined by independent certified valuators and Eurobank Property Services S.A. (note 25), which is specialized in the area of real estate valuations, utilizes internal or external independent qualified appraisers and is regulated by the Royal Institute of Chartered Surveyors. The main factors underlying the determination of fair value are related with the receipt of contractual rentals, 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 less cost to sell is determined based on market prices of comparable transactions those prices are subject to appropriate adjustments, in order to reflect current economic conditions and the management's best estimate regarding the future trend of properties market.

The processes and underlying assumptions applicable for the determination of repossessed properties net realizable value are similar to those described above for investment properties.

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

3.8 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 34 and note 42.

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 4 and 25.

4. Credit exposure to Greek sovereign debt

The carrying value of Greek sovereign major exposures is as follows:

	2018 **€ million**	2017 € million
Greek government bonds	**3,180**	2,530
Derivatives with the Greek state	**1,189**	1,181
Exposure relating with Greek sovereign risk financial guarantee	**197**	196
Loans guaranteed by the Greek state	**103**	117
Loans to Greek local authorities and public organizations	**55**	53
Treasury bills	**0**	1,044
Total	**4,724**	5,121

The adequacy of the impairment allowance for loans and receivables either guaranteed by the Greek state or granted to public related entities was evaluated in the context of the Bank's impairment policy. The Bank monitors the developments for the Greek macroeconomic environment closely in order to adjust appropriately its estimates and judgments based on the latest available information (note 2.1).

Information on the fair values of the Bank's financial instruments is provided in note 6.3.

5. Capital Management

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

	2018 € million	2017 € million
Total equity	**4,378**	6,442
Add: Adjustment due to IFRS 9 transitional arrangements	**798**	-
Less: Preferred Securities	**(42)**	(43)
Less: Other regulatory adjustments	**(566)**	(226)
Common Equity Tier 1 capital	**4,568**	6,173
Add: Preferred securities subject to phase-out	**17**	21
Less: Other regulatory adjustments	**-**	(21)
Total Tier 1 capital	**4,585**	6,173
Tier 2 capital-subordinated debt	**950**	-
Add: Other regulatory adjustments	**-**	5
Total Regulatory Capital	**5,535**	6,178
Risk Weighted Assets	**34,436**	32,689
Ratios:	**%**	%
Common Equity Tier 1	**13.3**	18.9
Tier 1	**13.3**	18.9
Total Capital Adequacy Ratio	**16.1**	18.9

Note: The Bank's CET1 as at 31 December 2018, based on the full implementation of the Basel III rules in 2024, (fully loaded CET1) would be 10.7% (31 December 2017: 15.2%).

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).

European Banking Authority 2018 Stress Test

On 31 January 2018, the European Banking Authority (EBA) launched its 2018 EU-wide stress test and released the macroeconomic scenarios. The EBA coordinated the EU-wide stress test exercise in cooperation with the ECB and national authorities. The results of the stress test provide stakeholders and the public with information about the resilience of banks, notably their ability to absorb shocks and meet capital requirements under adverse macroeconomic conditions.

The EU-wide stress test was conducted according to the EBA's methodology, which was published in November 2017, templates and scenarios. The exercise was carried out on the basis of year-end 2017 figures as restated with the impact of the IFRS 9 adoption and assessed the resilience of EU banks under a common macroeconomic baseline scenario and a common macroeconomic adverse scenario, covering the period 2018-2020. The baseline scenario was in line with the December 2017 forecast published by the ECB, while the adverse scenario, which has been developed by the European Systemic Risk Board (ESRB) and the ECB in close cooperation with the EBA and the competent authorities, was designed to ensure an adequate level of severity across all EU countries. No pass-fail threshold has been included, as the results of the exercise were designed to serve as an input to the Supervisory Review and Evaluation Process (SREP).

Eurobank, along with the other three Greek systemic banks directly supervised by the ECB, underwent the same stress test (ST) under the EBA scenarios and methodology. The timetable for the Greek systemic banks was accelerated in order to complete the test before the end of the third European Stability Mechanism stability support program for Greece.

2018 Eurobank Stress Test Results

On 5 May 2018, the ECB announced the results of the ST for the four Greek systemic banks, including Eurobank. Based on feedback received by the Single Supervisory Mechanism (SSM), the ST outcome along with other factors that have been assessed by the Supervisory Board (SB) of the SSM, pointed to no capital shortfall and no capital plan needed for the Bank as a result of the exercise.

Under the adverse scenario, the Bank's total capital adequacy ratio (CAD), including the effect of Tier 2 securities, issued in January 2018, is 9.5%, and the Core Tier 1 Capital (CET1) ratio is 6.8%. These ratios would be ca. 40 bps higher, at 9.9% and 7.2% respectively, if the positive impact from the sale of the Romanian disposal group (completed in early April 2018) was taken into account. The capital depletion stood at € 3.4 bn (8.7 ppts, excluding the negative impact of 250 bps related to the phase-out of grandfathered preference shares). Under the baseline scenario, the Bank is capital accretive, with CAD and CET1 ratios increasing at 19.3% and 16.6%, respectively. These ratios would be ca. 40 bps higher if the positive impact from the sale of the Romanian disposal group was included.

The Bank's performance in the ST confirms that it remains resilient to external shocks. The Bank's total capital and overall solid performance allows it to further streamline efforts on the implementation and delivery of its business priorities, focusing on effective management and rapid decrease of stock of non-performing exposures in line with its plans, as well as providing financing to its clients, to the Greek economy and the region. The above business priorities, along with additional initiatives associated with the restructuring, transformation or optimization of operations, in Greece and abroad will generate or release further capital and/or reduce risk weighted assets, contributing to the further strengthening of the Group's capital position.

Restructuring plan and Monitoring Trustee

The Bank's commitments included in the revised restructuring plan, as approved by the European Commission on 26 November 2015, have been fully met until the end of 2018. In particular, during 2018, the Group has met/respected the remaining commitments of the restructuring plan including: (a) the reduction of the portfolio of the Group's foreign assets (non–related to Greek clients), following the completion of the sale of the Romanian disposal group, in April 2018 (note 25) and (b) the reduction of the net loans to deposits ratio for the Group's Greek banking activities below the limit of 115%, as the respective ratio has improved to 105% on 31 December 2018 (31 December 2017: 128%).

Grant Thornton S.A. that was appointed as the Bank's Monitoring Trustee (MT) had undertaken to monitor the implementation of the restructuring plan that ended on 31 December 2018 and report to the European Commission.

Further information in respect of the restructuring plan, the relating principal commitments included therein and the Bank's MT was provided in the note 6 of the financial statements for the year ended 31 December 2017.

6. Financial risk management and fair value

6.1 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.

6.2 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 enables 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 of 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, modeling tools, data sources and sufficient and competent staff to identify, assess, monitor and mitigate risks.

The BRC consists of six 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 in 2016 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 Board Risk Committee 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). In addition to the above a position of a Senior Advisor has been established who reports directly to the Group Chief Risk Officer.

Non-Performing Exposures (NPEs) management

Following the Bank of Greece (BoG) Executive Committee's Act No.42/30.05.2014 as amended by Act No.47/9.2.2015, Act No. 102/30.08.2016 and Act No. 134/5.3.2018, 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.

Operational targets for Non-Performing Exposures (NPEs)

In line with the national strategy for the reduction of NPEs, the Bank of Greece (BoG), in cooperation with the supervisory arm of the European Central Bank (ECB), has designed an operational targets framework for NPEs management, supported by several key performance indicators. Pursuant to the said framework, the Greek banks submitted at the end of September 2016 a set of NPEs operational targets together with a detailed NPEs management strategy with a 3-year time horizon, which is henceforth revised annually in order to align with changes in the operating environment and the Bank's strategic priorities. In September 2018, the Greek banks submitted an updated set of NPEs operational targets, together with an updated NPEs management strategy, for the years 2018-2021. According to the revised NPEs targets, the Bank's NPEs stock is projected to reach € 11.6 bn (NPE ratio 33.0%) by the end of 2019, and € 5.4 bn (NPE ratio 16.9%) by the end of 2021, representing a reduction of 70% in NPE volumes from December 2017 to 2021 (74% for Retail and 63% for Corporate). The mix of solutions to be used is differentiated versus the previous submission, involving securitization of NPEs, increased sales and liquidations.

As at 31 December 2018, the Bank has reduced the stock of NPEs by € 2.8 bn since 31 December 2017 to € 15.3 bn which is in line with the revised target submitted to SSM in September 2018.

The Bank has fully embedded the NPEs strategy into its management processes and operational plan. The supervisory authority reviews the course to meeting the operational targets on a quarterly basis and might request additional corrective measures if deemed necessary.

The Bank is preparing for the re-submission of the updated NPE Strategy and Operational Targets (2019-2021) end of March 2019, at both Bank and, for the first time, Group level, as required by SSM in alignment of reporting cycles with other EU Significant Institutions as per the ECB guidance and based on New NPE strategy template. In this respect a wide-scope project has been initiated to enable all involved Group entities to adhere to the new demanding regulatory requirements. The new submission takes into account the NPE reduction Acceleration Plan that was recently announced in the context of the Bank's Transformation Plan and aims to achieve a Group NPE ratio of 16% in 2019 and a single digit by 2021.

Legal framework

In June 2018, significant legislative changes towards the reduction of NPEs include the voting of Law 4549/2018, which amends the Individual Insolvency Law 3869/2010 and the Law 4469/2017 for the operating framework of the out-of-court workout mechanism for businesses. In this context, a new protection scheme on primary residence was voted by the Greek Parliament on 29 March 2019.

6.2.1 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 economic difficulties or political unrest in a country, including the risk of losses following nationalization, expropriation and debt restructuring.

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, maintenance and validation 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

The Group Market and Counterparty Risk Sector (GMCRS) is responsible for the measurement, monitoring and 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.

The Group sets limits on the level of counterparty risk (see also below 6.2.1 (f) credit risk mitigation) that may be undertaken based mainly on the counterparty's credit rating, as provided by international rating agencies, and the product type (e.g. control limits on net open derivative positions by both amount and term, sovereign bonds exposure, asset backed securities). 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.

In case of uncollateralized derivative transactions, the Bank measures the current exposure along with the potential future exposure (PFE) using financial models. The combined exposure is used for the monitoring of limit utilization.

The GMCRS's exposure measurement and reporting tool is also available to the Group's subsidiaries treasury divisions, thus providing them with the ability to monitor each counterparty's exposure and the limit availability.

(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 Eurobank Property Services S.A. (note 25), which reports to the General Manager of Global Markets, Wealth Management and Group Real Estate Asset Management. Eurobank Property Services S.A. 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 Eurobank Property Services S.A. 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 initiated 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 without delay.

6.2.1.1 Maximum exposure to credit risk before collateral held

Amounts under IFRS 9

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

[(1)] It refers to financial assets subject to IFRS 9 impairment requirements, which are recognised within other assets.
[(2)] It excludes € 1.2 bn pledged deposits for guarantees relating to the lending activities of banking subsidiaries (note 19).

The above table represents the Bank's maximum credit risk exposure as at 31 December 2018, 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 € 2.2 bn that are subject to ECL measurement.

Amounts under IAS 39

	2017 € million
Credit risk exposures relating to on-balance sheet assets are as follows:	
Due from credit institutions	2,867
Debt securities held for trading	12
Derivative financial instruments	1,884
Loans and advances to customers:	
- Wholesale lending	14,053
- Mortgage lending	15,298
- Consumer lending	4,212
- Small business lending	6,320
Less: Impairment allowance	(9,017)
Investment securities:	
- Debt securities	6,554
Other assets	1,302
Credit risk exposures relating to off-balance sheet items (note 42)	1,485
Total	44,970

Note: Other assets exclude repossessed properties and relative prepayments of € 272 million.

The above table represents the Bank's maximum credit risk exposure as at 31 December 2017, 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. Off-balance sheet items mentioned above include letters of guarantee, standby letters of credit, commitments to extend credit and documentary credits.

6.2.1.2 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. 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. Following the adoption of IFRS 9 from 1 January 2018, the Bank updated the disclosures in relation to the guidelines stated above in order to comply with the revised IFRS 7 'Financial Instruments: Disclosures'. Given that the Bank has adopted IFRS 9 without restatement of comparative information, the information applicable under IFRS 9 is presented in separate sections from the respective disclosures under IAS 39, where appropriate.

(a) Credit quality of loans and advances to customers

Applicable from 1 January 2018

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.

Applicable before 1 January 2018

Loans and advances to customers are classified as 'neither past due nor impaired', 'past due but not impaired' and 'impaired'.

Loans reported as 'neither past due nor impaired' include loans with no contractual payments in arrears and no other indications of impairment.

'Past due but not impaired' category includes loans with contractual payments overdue by at least one day but which are not impaired unless specific information indicates to the contrary. For retail exposures, this is typically when loans are in arrears less than 90 days while for wholesale exposures both the delinquency status and the internal rating, which reflects the borrower's overall financial condition and outlook, are assessed.

For loans in the above categories, although not considered impaired, the Bank recognizes a collective impairment loss (as set out in note 2.2.13 'Impairment of financial assets').

'Impaired' loans that are individually assessed include all wholesale exposures as well as small business and mortgage loans which carry an individual impairment allowance. The rest of retail exposures are considered impaired when they are in arrears for more than 90 days or earlier in case there is an objective evidence of impairment and carry a collective impairment allowance. Furthermore, impaired retail loans under forbearance measures may include loans in arrears less than 90 days.

The evidence considered by the Bank in determining whether there is objective evidence of impairment 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 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 2018, the Bank's default exposures amounted to € 14,290 million (2017: € 16,682 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 2018, the Bank's non-performing exposures included in loans and advances to customers at amortised cost amounted to € 15,208 million (1 January 2018: € 18,037 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 2018, the Bank's performing exposures included in loans and advances to customers at amortised cost amounted to € 22,067 million (1 January 2018: € 21,760 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

Amounts under IFRS 9

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 and credit related commitments respectively, that are classified as non-impaired (stage 1 and stage 2) and those classified as credit-impaired (stage 3 and POCI). They also present the total 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 table presents 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 as at 31 December 2018:

	31 December 2018										
	Non impaired		Credit-impaired			Impairment allowance					
			Lifetime ECL credit-impaired					Lifetime ECL credit-impaired			
	12-month ECL € million	Lifetime ECL not credit-impaired € million	Individually assessed € million	Collectively assessed € million	Total gross carrying amount/nominal exposure € million	12-month ECL € million	Lifetime ECL not credit-impaired € 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**						**-**	**20,480**
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*							

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 2018			
		Non impaired		Credit-impaired	
	Internal credit rating	12-month ECL € million	Lifetime ECL not credit-impaired € million	Lifetime ECL credit-impaired € million	Total gross carrying amount € million
Retail Lending					
- Mortgage					
	PD<2.5%	2,610	1	-	2,611
	2.5%<=PD<4%	2,117	593	-	2,710
	4%<=PD<10%	823	611	-	1,434
	10%<=PD<16%	*31*	*376*	-	*407*
	16%<=PD<99.99%	*105*	*1,816*	-	*1,921*
	100%	-	-	*5,812*	*5,812*
- Consumer					
	PD<2.5%	495	-	-	495
	2.5%<=PD<4%	126	-	-	126
	4%<=PD<10%	83	5	-	88
	10%<=PD<16%	*169*	*1*	-	*170*
	16%<=PD<99.99%	*0*	*224*	-	*224*
	100%	-	-	*966*	*966*
- Credit card					
	PD<2.5%	421	-	-	421
	2.5%<=PD<4%	124	-	-	124
	4%<=PD<10%	-	1	-	1
	10%<=PD<16%	*21*	-	-	*21*
	16%<=PD<99.99%	*2*	*14*	-	*16*
	100%	-	-	*210*	*210*
- Small business					
	PD<2.5%	218	2	-	220
	2.5%<=PD<4%	937	-	-	937
	4%<=PD<10%	37	7	-	44
	10%<=PD<16%	*45*	*9*	-	54
	16%<=PD<99.99%	*45*	*1,153*	-	1,198
	100%	-	-	*3,397*	3,397
Wholesale Lending					
- Large corporate					
	Strong	3,821	14	-	3,835
	Satisfactory	2,448	509	-	2,957
	Watch list	5	379	-	384
	Impaired (Defaulted)	-	-	*2,230*	*2,230*
- SMEs					
	Strong	571	25	-	596
	Satisfactory	516	150	-	666
	Watch list	12	339	-	351
	Impaired (Defaulted)	-	-	*2,593*	*2,593*
Public Sector					
All countries					
	Strong	6	-	-	6
	Satisfactory	50	-	-	50
	Watch list	-	-	-	-
	Impaired (Defaulted)	-	-	*0*	*0*
Total		**15,838**	**6,229**	**15,208**	**37,275**

	Internal credit rating	31 December 2018 Non impaired 12-month ECL € million	Lifetime ECL not credit-impaired € million	Credit-impaired Lifetime ECL credit-impaired € million	Total nominal amount € million
Credit Related Commitments					
Retail Lending					
Loan commitments					
	PD<2.5%	1,339	0	-	1,339
	2.5%<=PD<4%	922	-	-	922
	4%<=PD<10%	3	1	-	4
	10%<=PD<16%	21	1	-	22
	16%<=PD<99.99%	1	8	-	9
	100%	-	-	0	0
Financial guarantee contracts and other commitments					
	PD<2.5%	21	-	-	21
	2.5%<=PD<4%	93	-	-	93
	4%<=PD<10%	-	-	-	-
	10%<=PD<16%	-	-	-	-
	16%<=PD<99.99%	-	-	-	-
	100%	-	-	-	-
Wholesale Lending					
Loan commitments					
	Strong	90	-	-	90
	Satisfactory	44	-	-	44
	Watch list	8	-	-	8
	Impaired (Defaulted)	-	-	-	-
Financial guarantee contracts and other commitments					
	Strong	1,019	52	-	1,071
	Satisfactory	327	62	-	389
	Watch list	6	54	-	60
	Impaired (Defaulted)	-	-	*898*	898
Total		**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 table presents 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 year from 1 January 2018 to 31 December 2018:

	31 December 2018												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL	Lifetime ECL not credit-impaired	Lifetime ECL credit-impaired	12-month ECL	Lifetime ECL not credit-impaired	Lifetime ECL credit-impaired	12-month ECL	Lifetime ECL not credit-impaired	Lifetime ECL credit-impaired	12-month ECL	Lifetime ECL not credit-impaired	Lifetime ECL credit-impaired	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ 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 not credit-impaired loans	*(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	-	-	(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**

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 sold, modified (where the modification resulted in a derecognition) and those that have been reclassified as held for sale during the year.

Credit impaired loans and advances to customers

The following table presents the ageing analysis of credit impaired (Stage 3) loans and advances by product line at their gross carrying amounts, as well as the respective cumulative loss allowances and the value of collaterals held to mitigate credit risk.

For legally 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 2018							
	Retail lending				Wholesale lending		Public sector	Lifetime ECL credit-impaired
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece € million	€ 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**

Amounts under IAS 39

The following tables present the total gross amount, representing the maximum exposure to credit risk before impairment allowance, of loans and advances that are classified as non-impaired (i.e. 'neither past due nor impaired' and 'past due but not impaired') and those classified as impaired. They also present the total impairment allowance recognized in respect of all loans and advances, analyzed into individually or collectively assessed, based on how the respective exposure is assessed for impairment, the total net amount, as well as the value of collateral held to mitigate credit risk.

Public Sector lending includes 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.

In 2018 the Bank proceeded with a change in the presentation of exposures included under Public Sector in order to align with the types of exposures monitored under Public Sector for regulatory and credit risk management purposes. Consequently, for 31 December 2017, Public Sector exposures of total net amount € 576 million, are restated to € 62 million, whereas an amount of € 514 million is now presented within Wholesale Lending. The tables for 31 December 2017 where Public Sector is presented separately have been amended accordingly.

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

	31 December 2017								
	Non impaired		Impaired			Impairment allowance			
	Neither past due nor impaired € million	Past due but not impaired € million	Individually assessed € million	Collectively assessed € million	Total gross amount € million	Individually assessed € million	Collectively assessed € million	Total net amount € million	Value of collateral € million
Retail Lending	10,587	2,646	198	12,399	25,830	(98)	(5,909)	*19,823*	15,523
- Mortgage	*7,391*	*1,756*	*145*	*6,006*	*15,298*	*(78)*	*(2,133)*	*13,087*	*11,847*
- Consumer	*916*	*270*	-	*2,003*	*3,189*	-	*(1,607)*	*1,582*	*128*
- Credit card	*547*	*41*	-	*435*	*1,023*	-	*(313)*	*710*	*34*
- Small business	*1,733*	*579*	*53*	*3,955*	*6,320*	*(20)*	*(1,856)*	*4,444*	*3,514*
Wholesale Lending	7,725	761	5,502	-	*13,988*	(2,792)	(215)	*10,981*	6,098
- Large corporate	*6,187*	*676*	*2,456*	-	*9,319*	*(1,323)*	*(139)*	*7,857*	*3,816*
- SMEs	*1,538*	*85*	*3,046*	-	*4,669*	*(1,469)*	*(76)*	*3,124*	*2,282*
Public Sector	65	0	0	-	*65*	(0)	(3)	62	4
- Greece	*65*	*0*	*0*	-	*65*	*(0)*	*(3)*	*62*	*4*
Total	18,377	3,407	5,700	12,399	39,883	(2,890)	(6,127)	30,866	21,625

Loans and advances neither past due nor impaired

The Bank's internal rating systems monitor individually significant exposures based on a variety of quantitative and qualitative factors. For exposures classified as neither past due nor impaired, loans to wholesale customers are segregated into strong, satisfactory and watch list categories, while small business and mortgage loans that are assessed individually are generally segregated into satisfactory and watch list. The rest of the retail exposures that are not assessed individually, the credit quality of which is not rated but is based on their delinquency status, are classified as satisfactory.

The following table presents the risk classification of loans and advances that are neither past due nor impaired:

	31 December 2017				
	Strong € million	Satisfactory (risk) € million	Watch list (higher risk) € million	Total neither past due nor impaired € million	Value of collateral € million
Retail Lending	-	10,587	-	10,587	7,425
- Mortgage	-	*7,391*	-	*7,391*	*6,280*
- Consumer	-	*916*	-	*916*	-
- Credit card	-	*547*	-	*547*	-
- Small business	-	*1,733*	-	*1,733*	*1,145*
Wholesale Lending	5,702	1,807	216	7,725	3,157
- Large corporate	*4,639*	*1,411*	*137*	*6,187*	*2,320*
- SMEs	*1,063*	*396*	*79*	*1,538*	*837*
Public Sector	1	64	-	65	4
- Greece	*1*	*64*	-	*65*	*4*
Total	5,703	12,458	216	18,377	10,586

Loans and advances past due but not impaired

The following table presents the ageing analysis of past due but not impaired loans and advances by product line at their gross amounts before any impairment allowance:

	31 December 2017							
	Retail lending				Wholesale lending		Public sector	Total past due but not impaired
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece € million	€ million
up to 29 days	1,411	235	31	475	564	39	-	2,755
30 to 59 days	247	24	7	65	47	17	-	407
60 to 89 days	98	11	3	39	65	29	-	245
Total	1,756	270	41	579	676	85	-	3,407
Value of collateral	1,427	0	-	353	448	63	-	2,291

Impaired loans and advances

The following table presents the movement of impaired loans and advances by product line:

	31 December 2017							
	Retail lending				Wholesale lending		Public sector	
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece € million	Total impaired € million
Balance at 31 December 2016	6,358	2,687	567	4,317	2,811	3,770	0	20,510
Transfers among product lines	-	-	-	-	245	(245)	-	-
Balance at 1 January	6,358	2,687	567	4,317	3,056	3,525	0	20,510
Impaired exposures for the year	656	126	14	299	136	96	0	1,327
Transferred to non-impaired	(716)	(133)	(15)	(555)	(221)	(94)	-	(1,734)
Repayments	(83)	(61)	(15)	(44)	(104)	(97)	-	(404)
Amounts written off	(41)	(113)	(64)	(3)	(291)	(355)	-	(867)
Disposals	-	(546)	(62)	-	(68)	(24)	-	(700)
Foreign exchange differences and other movements	(23)	43	10	(6)	(52)	(5)	(0)	(33)
Balance at 31 December	6,151	2,003	435	4,008	2,456	3,046	0	18,099
Cumulative impairment allowance	(2,057)	(1,510)	(303)	(1,824)	(1,376)	(1,469)	(0)	(8,539)
Net balance at 31 December	4,094	493	132	2,184	1,080	1,577	0	9,560

The following table presents the ageing analysis of impaired loans and advances by product line at their amounts net of any impairment allowance, as well as the value of collaterals held to mitigate credit risk.

For legally 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 2017							
	Retail lending				Wholesale lending		Public sector	
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece € million	Total impaired € million
up to 29 days	785	96	1	368	767	256	0	2,273
30 to 59 days	182	18	0	55	1	7	-	263
60 to 89 days	138	7	0	79	53	42	-	319
90 to 179 days	225	16	3	85	44	54	-	427
180 to 360 days	200	16	2	94	35	44	-	391
more than 360 days	2,564	340	126	1,503	180	1,174	-	5,887
Total	4,094	493	132	2,184	1,080	1,577	0	9,560
Value of collateral	4,140	128	34	2,016	1,048	1,382	-	8,748

(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:

	2018
	€ million
Mortgages	
Less than 50%	**3,136**
50%-70%	**1,774**
71%-80%	**1,186**
81%-90%	**1,075**
91%-100%	**2,560**
101%-120%	**1,460**
121%-150%	**1,288**
Greater than 150%	**2,416**
Total exposure	**14,895**
Average LTV	**90.31%**

	2017
	€ million
Mortgages	
Less than 50%	3,248
50%-70%	2,021
71%-80%	1,012
81%-90%	921
91%-100%	900
101%-120%	1,676
121%-150%	2,071
Greater than 150%	3,449
Total exposure	15,298
Average LTV	101.39%

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

	31 December 2018				
	Value of collateral received				**Guarantees received**
	Real Estate	**Financial**	**Other**	**Total**	
	€ million	**€ million**	**€ million**	**€ 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**

	31 December 2017				
	Value of collateral received				Guarantees received
	Real Estate	Financial	Other	Total	
	€ million	€ million	€ million	€ million	€ million
Retail Lending	15,054	245	224	15,523	162
Wholesale Lending [(1)]	2,937	101	3,060	6,098	179
Public sector	2	2	-	4	1
Total	17,993	348	3,284	21,625	342

[(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 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

	31 December 2017						
	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	359	30	(97)	(10)	262	20	(2)
- Residential	*237*	*12*	*(65)*	*(5)*	*172*	*17*	*(2)*
- Commercial	*122*	*18*	*(32)*	*(5)*	*90*	*3*	*(0)*

There are no properties classified as investment property or own used, as a result of repossession or transfer from repossessed properties categories in 2018 and 2017. In 2017 the Bank repossessed securities amounting to € 20 million, which were classified as available for sale investment securities.

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

As described above in note 6.2.1, 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.

Amounts under IFRS 9

The following table breaks 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 ECL stage, product line, industry and geographical region and impairment allowance by product line, industry and geographical region:

	31 December 2018											
	Greece				Rest of Europe				Other Countries			
	Gross carrying/nominal amount				Gross carrying/nominal amount				Gross carrying/nominal amount			
	12-month ECL € million	Lifetime ECL not credit-impaired € million	Lifetime ECL credit-impaired € million	Impairment allowance € million	12-month ECL € million	Lifetime ECL not credit-impaired € million	Lifetime ECL credit-impaired € million	Impairment allowance € million	12-month ECL € million	Lifetime ECL not credit-impaired € 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)*

As at 31 December 2018, the carrying amount of Bank's loans measured at FVTPL amounted to € 46 million, all of which were included in Wholesale lending portfolio.

Amounts under IAS 39

The following table breaks down the Bank's exposure into loans and advances to customers at their gross amounts, impaired loans and advances and impairment allowance by product line, industry and geographical region:

	31 December 2017								
	Greece			Rest of Europe			Other Countries		
	Gross amount € million	Out of which: impaired amount € million	Impairment allowance € million	Gross amount € million	Out of which: impaired amount € million	Impairment allowance € million	Gross amount € million	Out of which: impaired amount € million	Impairment allowance € million
Retail Lending	25,830	12,597	(6,007)	-	-	-	-	-	-
-Mortgage	15,298	6,151	(2,211)	-	-	-	-	-	-
-Consumer	3,189	2,003	(1,607)	-	-	-	-	-	-
-Credit card	1,023	435	(313)	-	-	-	-	-	-
-Small business	6,320	4,008	(1,876)	-	-	-	-	-	-
Wholesale Lending	12,664	5,092	(2,696)	332	247	(177)	992	163	(134)
-Commerce and services	6,363	2,598	(1,512)	159	132	(90)	160	102	(95)
-Manufacturing	2,797	906	(457)	2	1	(0)	-	-	-
-Shipping	91	31	(18)	121	68	(61)	831	60	(39)
-Construction	1,912	1,036	(553)	41	37	(19)	1	1	(0)
-Tourism	1,305	510	(144)	-	-	-	-	-	-
-Energy	191	9	(11)	4	4	(4)	-	-	-
-Other	5	2	(1)	5	5	(3)	-	-	-
Public Sector	65	-	(3)	-	-	-	-	-	-
Total	38,559	17,689	(8,706)	332	247	(177)	992	163	(134)

(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 6.2.

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 2018, equity positions acquired by the Bank and held as of 31 December 2018 are: (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. (note 29) and b) 12.1% of Regency Hellenic Investments S.A. for € 8.5 million, following the debt restructuring of Regency Entertaiment S.A. Similarly in 2017, equity positions acquired by the Bank and held as of 31 December 2017 were: (a) 100% of Standard Ktimatiki S.A. (note 25), (b) 24.37% of Famar S.A., (c) 47.66% of the non-voting preferred shares of ELTER S.A. for € 0.3 million, (d) 0.86% of FRIGOGLASS S.A.I.C. for € 0.03 million and (e) 18.02% of UNISOFT S.A. for € 27.

Applicable from 1 January 2018

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 6.2.1. 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 2018, the carrying amount of Bank's forborne loans measured at FVTPL amounted to € 31 million.

Applicable before 1 January 2018

i. Classification of Forborne loans

Forborne loans are classified either as impaired or non-impaired by assessing their delinquency and credit quality status at the date when forbearance measures were granted as well as at each reporting date.

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. In addition, non-impaired loans, including those that were previously classified as 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 amount, there are no past due amounts over 30 days and the loans are not impaired, the loans exit forborne status.

Particularly, the category of impaired 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 impaired status.

Additionally, the non-impaired retail loans are classified as either 'neither past due nor impaired' or 'past due but not impaired' based on their delinquency status at the reporting date while for wholesale exposures' classification both the borrowers' rating and delinquency status are assessed.

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 impaired loans 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 6.2.1. Specifically, the retail loans are segregated from other loan portfolios and the collective impairment assessment reflects the risk of higher losses, resulting in higher provision charges/coverage relative to non-modified loans. The impairment assessment of the wholesale exposures is performed on an individual basis taking into consideration various risk aspects (such as borrower's rating, financial position, adherence to the forbearance program and level of collaterals) and the respective impairment charge is calculated.

iii. Loan restructurings

An existing loan whose terms have been modified may be derecognized and the forborne loan may be recognized as a new loan, when changes to the original contractual terms result in the forborne loan, being considered, as a whole, a substantially different financial asset. Examples of circumstances that will likely lead to derecognition are described in note 2.2.13. Upon derecognition, any difference between the old loan and the fair value of the new loan is recognized in the income statement. Impaired loans that are derecognized as a result of forbearance measures continue to be classified as impaired until there is a sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows and there are no other indicators of impairment.

Amounts under IFRS 9

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:

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

The following table presents a summary of the credit quality of forborne loans and advances to customers:

	31 December 2018		
	Total loans & advances at amortised cost € million	Forborne loans & advances € million	% of Forborne loans & advances
Gross carrying amounts:			
12-month ECL	**15,838**	**0**	**0%**
Lifetime ECL not credit-impaired	**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 allowance	**(124)**	**(0)**	
Lifetime ECL (not credit-impaired) allowance	**(678)**	**(527)**	
Lifetime ECL (credit-impaired) allowance of whch:	**(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:

	2018 € million
Gross carrying amount at 1 January	**10,005**
Forbearance measures in the year [1]	**1,010**
Forborne loans derecognised/ reclassified as held for sale during the year [2]	**(41)**
Write-offs of forborne loans	**(20)**
Repayment of loans	**(406)**
Loans & advances that exited forbearance status [3]	**(1,999)**
Other	**190**
Less: cumulative impairment allowance	**(1,997)**
Carrying amount at 31 December	**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 sold, modified (where the modification resulted in a derecognition) and those that have been reclassified as held for sale during the year.

[3] An amount of € 825 million loans and advances that exited forbearance status refers to loans that were denounced.

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

	2018 € million
Retail Lending	**7,020**
- Mortgage	*4,960*
- Consumer	*390*
- Credit card	*0*
- Small business	*1,670*
Wholesale Lending	**1,719**
-Large corporate	*1,066*
-SMEs	*653*
Total gross carrying amount	**8,739**
Less: cumulative impairment allowance	**(1,997)**
Total carrying amount	**6,742**

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

	2018 € million
Greece	8,666
Rest of Europe	40
Other countries	33
Total gross carrying amount	**8,739**
Less: cumulative impairment allowance	(1,997)
Total carrying amount	**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	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)]	1,969
Modification loss	67
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	560

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

In the year ended 31 December 2018, 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 € 96 million. The contractual amount outstanding on lending exposures that were written off during the year ended 31 December 2018 and that are still subject to enforcement activity is € 1,010 million.

Amounts under IAS 39

For comparison purposes the tables that depict forborne loans and advances to customers i) by type, ii) by product line and iii) by geographical region, have been amended in order to be 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:

	2017 € million
Forbearance measures:	
Split balance	3,996
Loan term extension	3,065
Arrears capitalisation	717
Reduced payment below interest owed	735
Interest rate reduction	573
Reduced payment above interest owed	340
Arrears repayment plan	127
Interest only	75
Grace period	144
Debt/equity swaps	91
Partial debt forgiveness/Write-down	44
Operational restructuring	51
Other	106
Total gross amount	10,064
Less: cumulative impairment allowance	(2,045)
Total net amount	8,019

The following table presents a summary of the credit quality of forborne loans and advances to customers:

	31 December 2017		
	Total loans & advances € million	Forborne loans & advances € million	% of Forborne loans and advances
Neither past due nor impaired	18,377	3,271	17.8
Past due but not impaired	3,407	1,439	42.2
Impaired	18,099	5,354	29.6
Total Gross Amount	39,883	10,064	25.2
Individual impairment allowance	(2,890)	(438)	15.2
Collective impairment allowance	(6,127)	(1,607)	26.2
Total Net amount	30,866	8,019	26.0
Collateral received	21,625	6,527	

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

	2017 € million
Balance at 1 January	8,586
Forbearance measures in the year [(2)]	1,027
Interest income	181
Repayment of loans (partial or total)	(345)
Loans & advances that exited forbearance status [(1)]	(1,054)
Impairment loss	(192)
Loss on derecognition:	1
Other	(185)
Balance at 31 December	8,019

[(1)] For 2017, an amount of € 561 million loans and advances that exited forbearance status refers to loans that were denounced

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

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

	2017 € million
Retail Lending	8,268
- Mortgage	*5,592*
- Consumer	*731*
- Credit card	*0*
- Small business	*1,945*
Wholesale Lending	1,796
-Large corporate	*1,107*
-SMEs	*689*
Total gross carrying amount	10,064
Less: cumulative impairment allowance	(2,045)
Total net amount	8,019

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

	2017 € million
Greece	9,960
Rest of Europe	42
Other countries	*62*
Total gross amount	10,064
Less: cumulative impairment allowance	(2,045)
Total net amount	8,019

6.2.1.3 Debt Securities

Following the transition to IFRS 9 at 1 January 2018, the Bank has adjusted where necessary the relevant information for the year ended 2018, in accordance with the revised IFRS 7 'Financial Instruments: Disclosures'. Given that the Bank has adopted IFRS 9 without restatement of comparative information, the information on the Bank's exposure to credit risk from debt securities for the year ended 2018 applicable under IFRS 9, is presented separately from the respective disclosures under IAS 39.

Amounts under IFRS 9

The following tables present an analysis of debt securities by external credit rating agency designation at 31 December 2018, based on Moody's ratings or their equivalent:

	31 December 2018		
	12-month ECL € million	Lifetime ECL not credit-impaired securities € million	Total € million
Investment securities at amortised cost			
Aaa	-	-	-
Aa1 to Aa3	-	-	-
A1 to A3	-	-	-
Lower than A3	217	754	971
Unrated	-	-	-
Gross Carrying Amount	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 2018	
	Securities held for trading € million	Investment securities mandatorily at FVTPL € million
Securities at FVTPL		
Aaa	-	-
Aa1 to Aa3	-	4
A1 to A3	-	-
Lower than A3	18	0
Unrated	0	-
Carrying Amount	18	4

Securities rated lower than A3 include: € 3,180 million related to Greek sovereign debt, € 1,115 million related to Eurozone members sovereign debt and € 83 million related to sovereign debt issued mainly by European Union members and candidate members.

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

	31 December 2018						
	Greece		Other European countries		Other countries		
	12-month ECL € million	Lifetime ECL not credit-impaired loans € million	12-month ECL € million	Lifetime ECL not credit-impaired loans € million	12-month ECL € million	Lifetime ECL not credit-impaired loans € 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	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

	31 December 2018		
	Greece € million	Other European countries € million	Total € 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

Amounts under IAS 39

The following table presents an analysis of debt securities by rating agency designation at 31 December 2017, based on Moody's ratings or their equivalent:

	31 December 2017				
	Securities held for trading € million	Available-for-sale securities € million	Debt securities lending portfolio € million	Held-to-maturity securities € million	Total € million
Aaa	-	230	-	0	230
Aa1 to Aa3	-	742	362	45	1,149
A1 to A3	-	238	109	30	377
Lower than A3	11	3,556	1,153	33	4,753
Unrated	1	56	0	0	57
Total	12	4,822	1,624	108	6,566

Securities rated lower than A3 include: € 3,574 million related to Greek sovereign debt, € 843 million related to Eurozone members sovereign debt and € 134 million related to sovereign debt issued mainly by European Union members and candidate members.

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

	31 December 2017			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Sovereign	3,574	2,541	16	6,131
Banks	30	79	-	109
Corporate	130	136	60	326
Total	3,734	2,756	76	6,566

6.2.1.4 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 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 liabiltiies € 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**

	31 December 2017					
				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						
Reserve repos with banks	281	(235)	46	(46)	-	-
Derivative financial instruments	1,878	-	1,878	(1,747)	(7)	124
Total	2,159	(235)	1,924	(1,793)	(7)	124

	31 December 2017					
				Related amounts not offset in the BS		
	Gross amounts of recognised financial liabiltiies € 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	1,849	-	1,849	(566)	(1,274)	9
Repurchase agreements with banks	5,903	(235)	5,668	(5,668)	-	-
Total	7,752	(235)	7,517	(6,234)	(1,274)	9

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.

6.2.2 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 market risk and specifically 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 2018 and 2017

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

	2018 **€ million**	2017 € million
Interest rate risk	**35**	17
Foreign Exchange Risk	**0**	0
Equities Risk	**1**	0
Total VaR	**35**	17

[(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 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)**

	31 December 2017				
	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	-	-	-	4	6
Fixed coupon bonds	-	-	-	4	6
Investment securities	625	454	443	2,311	1,990
Fixed coupon bonds	389	380	428	2,311	1,990
Variable coupon bonds	236	74	15	-	-
Covered bonds	-	-	-	(500)	-
Fixed coupon covered bonds	-	-	-	(500)	-
Derivatives[(1)]	362	(639)	1,277	13	(990)

[(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 2018 and 2017:

	31 December 2018							
	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)]	**3**	**1**	**-**	**221**	**189**	**0**	**8,410**	**8,824**
Assets classified as held for sale	**-**	**-**	**0**	**-**	**-**	**-**	**20**	**20**
Total Assets	**1,651**	**3,449**	**25**	**221**	**189**	**60**	**44,680**	**50,275**
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)**	**1,229**	**4,378**
Derivative forward foreign exchange position	**608**	**(3,399)**	**(25)**	**-**	**(430)**	**65**	**3,322**	**141**
Total Foreign Exchange Position	**(10)**	**28**	**(21)**	**221**	**(241)**	**(9)**	**4,551**	**4,519**

	31 December 2017							
	USD	CHF	RON	RSD	BGN	OTHER	EUR	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
ASSETS								
Cash and balances with central banks	5	0	-	-	-	3	364	372
Due from credit institutions	178	171	12	0	1	37	2,468	2,867
Securities held for trading	1	-	-	-	-	-	12	13
Derivative financial instruments	9	2	-	-	0	0	1,873	1,884
Loans and advances to customers	991	3,386	-	-	-	23	26,466	30,866
Investment securities	138	-	-	0	-	2	6,476	6,616
Other assets [(1)]	58	1	-	221	192	37	8,123	8,632
Assets classified as held for sale	-	-	209	-	-	-	(11)	198
Total Assets	1,380	3,560	221	221	193	102	45,771	51,448
LIABILITIES								
Due to central banks and credit institutions	840	1	0	0	0	18	16,303	17,162
Derivative financial instruments	10	0	0	-	-	1	1,839	1,850
Due to Customers	1,248	31	1	0	0	106	23,629	25,015
Debt securities in issue	0	-	-	-	-	-	503	503
Other Liabilities	6	0	-	-	-	2	468	476
Total Liabilities	2,104	32	1	0	0	127	42,742	45,006
Net on balance sheet position	(724)	3,528	220	221	193	(25)	3,029	6,442
Derivative forward foreign exchange position	807	(3,520)	(305)	-	(432)	67	3,350	(33)
Total Foreign Exchange Position	83	8	(85)	221	(239)	42	6,379	6,409

[(1)] Other assets include Shares in subsidiary undertakings, property, plant and equipment, investment property, intangible assets, deferred tax assets and other assets.

6.2.3 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
- Global 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 systemic 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 2018 and 2017, 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 2018				
	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)]	72	10	9	8,733	8,824
- Assets classified as held for sale	20	-	-	-	20
Total	**3,428**	**483**	**2,956**	**40,037**	**46,904**

	31 December 2017				
	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	372	-	-	-	372
- Due from credit institutions	454	315	388	322	1,479
- Loans and advances to customers	2,659	308	1,718	26,181	30,866
- Debt Securities	389	479	405	5,293	6,566
- Equity Securities	-	-	-	63	63
- Derivative financial instruments	-	-	-	78	78
- Other assets[(1)]	72	10	9	8,541	8,632
- Assets classified as held for sale	-	-	-	198	198
Total	3,946	1,112	2,520	40,676	48,254

[(1)] Other assets include Shares in subsidiary undertakings, 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 2018 and 2017. 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 2018				
	Less than 1 month € million	1 - 3 months € million	3 months to 1 year € million	Over 1 year € million	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**
Capital expenditure	**13**	**-**
Operating lease commitments	**26**	**81**
Total	**3,945**	**1,145**

	31 December 2017				
	Less than 1 month € million	1 - 3 months € million	3 months to 1 year € million	Over 1 year € million	Gross nominal (inflow)/ € million
Non-derivative liabilities:					
- Due to central banks and credit institutions	13,335	2,224	-	1,610	17,169
- Due to customers	18,401	2,920	3,688	21	25,030
- Debt securities in issue	-	-	14	536	550
- Other liabilities	56	92	327	-	475
	31,792	5,236	4,029	2,167	43,224
Derivative financial instruments:	9	-	-	-	9

Off-balance sheet items

	Less than 1 year € million	Over 1 year € million
Credit related commitments	537	948
Capital expenditure	26	-
Operating lease commitments	29	86
Total	592	1,034

6.3 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 carried 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 and asset backed securities issued by the Bank's special purpose entities.

Financial instruments carried at fair value

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

	31 December 2018			
	Level 1	**Level 2**	**Level 3**	**Total**
	€ million	**€ million**	**€ million**	**€ 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**	**-**	**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**

	31 December 2017			
	Level 1	Level 2	Level 3	Total
	€ million	€ million	€ million	€ million
Securities held for trading	11	1	1	13
Derivative financial instruments	0	1,883	1	1,884
Available-for-sale investment securities	4,847	0	37	4,884
Financial assets measured at fair value	4,858	1,884	39	6,781
Derivative financial instruments	0	1,850	-	1,850
Due to customers:				
- Structured deposits	-	4	-	4
Financial liabilities measured at fair value	-	1,854	-	1,854

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. During the year ended 31 December 2018, the Bank transferred OTC derivative instruments of € 0.6 million from Level 3 to Level 2 following the assessment on the significance of the CVA adjustment to their entire fair value measurement, calculated based on internal rating models. In addition, equity instruments of € 0.3 million were transferred from Level 1 to Level 2 as their market was not considered active.

Reconciliation of Level 3 fair value measurements

	2018 € million	2017 € million
Balance at 1 January	**39**	48
Transition to IFRS 9	**52**	-
Transfers into Level 3	**0**	0
Transfers out of Level 3	**(1)**	(0)
Additions, net of disposals and redemptions	**4**	(1)
Total gain/(loss) for the year included in profit or loss	**4**	(1)
Total gain/(loss) for the year included in other comprehensive income	**-**	(6)
Foreign exchange differences and other	**1**	(1)
Balance at 31 December	**99**	39

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 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.

For debt securities issued by the Bank and designated at FVTPL, fair values are determined 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.

Unquoted equity instruments at FVTPL under IFRS 9 (AFS under IAS 39) 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 carried at fair value

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

	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 carried 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 carried at fair value	510	722	1,247	2,479	2,691

	31 December 2017				
	Level 1 € million	Level 2 € million	Level 3 € million	Fair value € million	Carrying amount € million
Loans and advances to customers	-	-	30,720	30,720	30,866
Investment securities					
- Debt securities lending portfolio	200	894	-	1,094	1,624
- Held to maturity securities	-	103	-	103	108
Financial assets not carried at fair value	200	997	30,720	31,917	32,598
Debt securities in issue held by third party investors	501	-	-	501	497
Financial liabilities not carried at fair value	501	-	-	501	497

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

(a) Loans and advances to customers: 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 carried 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.

7. Net interest income

	2018 € million
Interest income	
Customers	**1,197**
- measured at amortized cost	*1,196*
- measured at FVPTL	*1*
Banks and other (measured at amortised cost)	**30**
Securities [1]	**151**
- measured at amortized cost	*17*
- measured at FVOCI	*133*
- measured at FVPTL	*1*
Derivatives (hedge accounting)	**15**
Derivatives (no hedge accounting)	**414**
	1,807
Interest expense	
Customers (measured at amortized cost)	**(129)**
Banks (measured at amortized cost)	**(140)**
Debt securities in issue (measured at amortized cost)	**(85)**
Derivatives (hedge accounting)	**(3)**
Derivatives (no hedge accounting)	**(395)**
	(752)
Total	**1,055**

	2017 € million
Interest income	
Customers	1,247
Banks and other	25
Securities [1]	163
Derivatives	347
	1,782
Interest expense	
Customers	(120)
Banks	(238)
Debt securities in issue	(3)
Derivatives	(321)
	(682)
Total	1,100

[1] *The interest income from trading securities included is immaterial for the year ended 31 December 2018 and 2017.*

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

	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**

	31 December 2017		
	Interest income on non-impaired loans and advances € million	Interest income on impaired loans and advances € million	Total € million
Retail lending	485	263	748
Wholesale lending[(1)]	359	140	499
Total interest income from customers	844	403	1,247

[(1)] Including interest income on loans and advances to Public Sector

The unwinding of the discount of the impairment allowance (note 23) amounting to € 251 million (retail lending € 169 million and wholesale lending € 82 million) is included in interest income on impaired loans and advances to customers (2017: retail lending € 167 million and wholesale lending € 83 million).

8. Net banking fee and commission income

	2018 € million	2017 € million
Lending related activities	**70**	61
Mutual funds and assets under management	**32**	27
Capital markets	**34**	8
Network activities and credit cards	**49**	39
Other	**0**	(8)
Total	**185**	127

9. Dividend income

During the year, the Bank recognized dividend income mainly resulting from shares in subsidiaries amounting to € 123 million (2017: € 132 million).

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

	2018 € million	2017 € million
Eurobank Private Bank Luxembourg S.A.	**30**	30
ERB Istanbul Holding A.S.	**30**	-
Eurobank Bulgaria A.D.	**17**	14
Eurolife ERB Insurance Group Holdings S.A.	**16**	8
Eurobank Factors S.A.	**15**	30
ERB New Europe Holding B.V.	**13**	38
Eurobank Fund Management Company (Luxembourg) S.A.	**-**	7
Grivalia Properties R.E.I.C.	**-**	4
Other	**2**	1
Total	**123**	132

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

	2018 € million
Debt securities of which:	**78**
- measured at amortized cost	**-**
- measured at FVOCI	**77**
- measured at FVPTL	**1**
Equity securities measured at FVTPL	**2**
Gains/(losses) on derivative financial instruments (hedge accounting)	**(1)**
Gains/(losses) on derivative financial instruments (no hedge accounting)	**11**
Revaluation on foreign exchange positions	**9**
Total	**99**

	2017 € million
Debt securities and other financial instruments	36
Equity securities	30
Gains/(losses) on derivative financial instruments	54
Revaluation on foreign exchange positions	3
Total	123

11. Other income/ (expenses)

For the year ended 31 December 2018, other income/(expenses) mainly include: (a) € 27.7 million loss resulting from the disposal of Bancpost S.A. and ERB Leasing IFN S.A., including the provisions recognized following the finalization of the completion statements of the Romanian disposal group and the completion of Bancpost's tax audit (note 25), (b) € 25 million capital return received from Eurolife ERB Insurance Group Holdings S.A., corresponding to the accumulated profits of Eurolife group, (c) € 4.3 million derecognition gain on loans measured at amortised cost, the terms of which were substantially modified, (d) € 2.2 million loss from the disposal of ERB Leasing E.A.D. (note 25), (e) € 4.9 million refund to which the Bank was entitled, based on the agreement for the sale of 80% of the Group's insurance operations completed in August 2016 and following the resolution of a legal claim in favor of Eurolife ERB Life Insurance S.A., and (f) € 6.8 million fee expense related to the deferred tax credits according to article 82 of Law 4472/2017 (note 16).

12. Operating expenses

	2018 € million	2017 € million
Staff costs (note 13)	**(382)**	(399)
Administrative expenses	**(148)**	(143)
Contributions to resolution and deposit guarantee funds	**(53)**	(51)
Depreciation of real estate properties and equipment	**(24)**	(22)
Amortisation of intangible assets	**(18)**	(16)
Operating lease rentals	**(40)**	(41)
Total	**(665)**	(672)

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).

13. Staff costs

	2018 € million	2017 € million
Wages, salaries and performance remuneration	**(269)**	(282)
Social security costs	**(64)**	(69)
Additional pension and other post employment costs	**(12)**	(11)
Other	**(37)**	(37)
Total	**(382)**	(399)

The average number of employees of the Bank during the year was 8.216 (2017: 8,617). As at 31 December 2018, the number of branches and business/private banking centers of the Bank amounted to 373.

14. Other impairments, restructuring costs and provisions

	2018 € million	2017 € million
Impairments and provisions related to shares in subsidiary undertakings, associates and joint ventures (notes 25, 34)	**(76)**	(105)
Impairment losses and valuation losses on real estate properties	**(15)**	(19)
Other impairment losses and provisions [(1)]	**(3)**	(8)
Impairment losses/ reversal on bonds (note 24)	**15**	-
Other impairment losses and provisions	**(79)**	(132)
Voluntary exit schemes and other related costs (note 34)	**(52)**	(5)
Other restructuring costs	**(6)**	(6)
Restructuring costs	**(58)**	(11)
Total	**(137)**	(143)

[(1)] Includes impairment losses on equity securities (under IAS 39 for the year 2017), other assets and provisions on litigations and other operational risk events.

For the year ended 31 December 2018, considering the trend in Greek real estate market prices and the particular characteristics of the Bank's real estate portfolio, an amount of € 15 million impairment and valuation losses on investment and repossessed properties has been recognised in the income statement.

As at 31 December 2018, the Bank recognized restructuring costs amounting to € 6 million mainly related with the optimization of its lending operations. As at 31 December 2017, the Bank had recognized restructuring expenses amounting to € 6 million, mainly relating to the rationalization of its branch network.

15. Income tax

	2018 € million	2017 € million
Current tax	**(3)**	(1)
Deferred tax (note 16)	**(6)**	36
Tax adjustments	**(14)**	-
Total tax (charge)/income	**(23)**	35

According to Law 4172/2013 currently in force, the nominal Greek corporate tax rate for the year 2018 is 29%. In addition, dividends distributed as of 1 January 2019, other than intragroup dividends, which under certain preconditions are relieved from both income and withholding tax, are subject to 10% withholding tax. According to article 23 of Law 4579/2018, which was enacted in December 2018 and amended Law 4172/2013, the Greek corporate tax rate for entities other than credit institutions, will decrease annually by 1% for each of the next four years starting from 2019, resulting to 25% for the year 2022 and onwards.

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

In October 2018, the Greek Council of State communicated its decisions to the Bank and another Greek banking institution, ruling against their refund right in reference to taxes prepaid (by way of withholding) on interest arising from bonds and treasury bills for the year 2008 (amounting to € 4 million for the Bank). The said decisions interpreted the Greek tax law applicable for the year 2008 and stated that such withholding taxes are allowed to be offset only against the banks' annual corporate income tax and any excess part is not refundable. However, in respect of such withholding taxes, two previous favorable decisions for different years (the one related to the Bank for the year 2010 and a second to another banking institution) have been issued by the same Council of State body. The Bank challenged the respective Council of State decision at the European Court. In addition to the above, the Bank has similar pending tax cases in the context of the interpretation of Law 2238/1994, amounting to € 46 million for the year 2012.

On 29 March 2019, a legislative bill was voted by the Greek Parliament including provisions which safeguard the collectability of both the tax receivables of Law 2238/1994 arising (as mentioned above) from withholding taxes on interest from bonds (for years 2008, 2010, 2011 and 2012) as well as the tax receivables of Law 4046/2012 (for years 2010, 2011 and 2012) arising from taxes of € 13 million for the Bank, withheld on interest from Greek sovereign bonds, Greek T-bills and corporate bonds with Greek State guarantee.

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.

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

	2018 € million	2017 € million
Profit/(loss) before tax	**56**	(24)
Tax at the applicable tax rate	**(16)**	7
Tax effect of:		
- income not subject to tax and non deductible expenses	**24**	38
- tax adjustments	**(14)**	-
- other	**(17)**	(10)
Total tax (charge)/income	**(23)**	35

Tax certificate and open tax years

The Bank has in principle 6 open tax years (i.e. 5 years as from the end of the fiscal year within which the relevant tax return should have been submitted). For the open tax years 2013-2015 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 and onwards, the 'Annual Tax Certificate' is optional, however, the Bank will continue to obtain such certificate.

The Bank has obtained by external auditors unqualified tax certificates for the open tax years 2013-2017. For the year ended 31 December 2018, the tax audit from external auditors is in progress. In addition, New TT Hellenic Postbank and New Proton Bank, which were merged with the Bank in 2013, have obtained by external auditors unqualified tax certificates with a matter of emphasis for their unaudited by tax authorities periods/tax years 18/1-30/6/2013 and 9/10/2011-31/12/2012, respectively, with regards to potential tax obligations resulting from their carve out. For both cases the Bank has formed adequate provisions.

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 2012 (included) has been time-barred for the Bank.

16. Deferred income taxes

Deferred income taxes are 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 income tax is as follows:

	2018 € million	2017 € million
Balance at 1 January	**4,846**	4,902
Income statement credit/(charge)	**(6)**	36
Investment securities at FVOCI	**64**	-
Available for sale investment securities	**-**	(85)
Cash flow hedges	**(2)**	(8)
Other	**1**	1
Balance at 31 December	**4,903**	4,846

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

	2018 € million	2017 € million
Impairment/valuation relating to loans and accounting write-offs [(1)]	**3,124**	3,005
PSI+ tax related losses	**1,151**	1,201
Losses from disposals and crystallized write-offs of loans	**265**	239
Other impairments/ valuations through the income statement	**248**	312
Unused tax losses	**62**	21
Costs directly attributable to equity transactions	**23**	31
Cash flow hedges	**15**	17
Defined benefit obligations	**12**	13
Own used, investment and repossessed properties	**(15)**	(13)
Investment securities at FVOCI	**(24)**	-
Valuations directly to available-for-sale revaluation reserve	**-**	(84)
Other [(1)]	**42**	104
Net deferred income tax	**4,903**	4,846

[(1)] As at 31 December 2018, deferred tax asset of € 61 million on provisions for credit related commitments of the Bank to its subsidiaries (mainly to reflect the carrying values of their loans' portfolios) has been reclassified from "other" category of temporary taxable differences to "Impairment/ valuation relating to loans and accounting write-offs".

Following the completion of the sale of the Romanian disposal group (note 25), the relevant valuation temporary differences were reversed, but were not fully utilized against taxable profits. This resulted to the increase of the deferred tax on unused tax losses and the decrease of deferred tax on valuations through the income statement for the year ended 31 December 2018.

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

	2018 € million	2017 € million
Impairment/ valuation relating to loans, disposals and write-offs	**85**	102
Unused tax losses	**41**	(9)
Tax deductible PSI+ losses	**(50)**	(50)
Change in fair value and other temporary differences	**(82)**	(7)
Deferred income tax (charge)/credit	**(6)**	36

As at 31 December 2018, the Bank recognized net deferred tax assets amounting to € 4.9 bn as follows:

(a) € 3,124 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) € 1,151 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 and onwards) for tax purposes;

(c) € 265 million refer to the unamortized part of the crystallized tax losses arising from write-offs and disposals of loans, which are subject to amortization (i.e. 1/20 of losses per year starting from year 2016 and onwards), according to the Greek tax law 4172/2013, as in force;

(d) € 62 million refer to unused tax losses of which ca € 48 million tax losses resulted from the sale of the Romanian disposal group in April 2018 (note 25). The ability for the Bank to utilize tax losses carried forward expires in five tax years after the year of their recognition;

(e) € 23 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

(f) € 278 million refer to other deductible temporary differences (i.e. valuation 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 2018, that the Bank will have sufficient future taxable profits, against which the unused tax losses, the deductible temporary differences, as well as the losses from PSI+ and the Greek state's debt buyback program 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 2018. 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 (i.e. profits/ losses on sale of investments or other assets, etc.) 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 2018 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 January 2018 and provided outlook of its profitability and capital position for the period up to the end of 2020 and b) the update of the Plan for the period till the end of 2021 that was submitted to the Board of Directors and the Hellenic Financial Stability Fund (HFSF) on December 2018. The January 2018 Business Plan has also been submitted to the Hellenic Financial Stability Fund (HFSF) and to the Single Supervisory Mechanism (SSM).

For the years beyond 2021, 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, (b) the lower loan impairment losses as a result of the macroeconomic conditions in Greece that are expected to improve gradually and the strategic initiatives in line with the Non-Performing Exposures (NPEs) strategy that the Bank has committed to the SSM, regarding the effective management of its troubled assets' portfolio, (c) the effectiveness of the continuous cost containment initiatives, and (d) 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 abovementioned Business Plan and its update largely depend on the risks and uncertainties that stem from the macroeconomic environment in Greece (note 2.1).

The Bank is in the process of the finalization of its updated business plan, subject to the completion of all the remaining actions and the receipt of all the necessary approvals from the competent authorities, relating to the merger of the Bank with Grivalia Properties REIC (note 43) and the Bank's planned strategic initiatives for the accelerated reduction of NPEs (note 6).

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

As at 31 December 2018, pursuant to the Law 4172/2013, as in force, the Bank's eligible DTAs/deferred tax credits (DTCs) against the Greek State amounted to € 3,927 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.

As of May 2017, according to article 82 of Law 4472/2017, which further amended article 27A of Law 4172/2013, 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 2018, an amount of € 6.8 million has been recognized in "Other income/ (expenses)".

17. Cash and balances with central banks

	2018 € million	2017 € million
Cash in hand	**329**	337
Balances with central banks	**68**	35
Total	**397**	372
of which:		
Mandatory and collateral deposits with central banks	**45**	13

Mandatory deposits with central banks include deposits of € 45 million (2017: € 13 million) with the Bank of Greece which represent the minimum level of average monthly deposits which the Bank is required to maintain; the majority can be withdrawn at any time provided the average monthly minimum deposits are maintained.

18. 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:

	2018 € million	2017 € million
Cash and balances with central banks (excluding mandatory and collateral deposits with central banks)	**352**	359
Due from credit institutions	**138**	147
Total	**490**	506

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

	2018 € million	2017 € million
Amortisation of premiums/discounts and accrued interest	**(79)**	(57)
(Gains)/losses from investment securities	**(79)**	(65)
Dividends	**(1)**	(1)
Total	**(159)**	(123)

Changes in liabilities arising from financing activities

During the year ended 31 December 2018, changes in the Bank's liabilities arising from financing activities, i.e., debt securities in issue (note 33), are attributable to: a) debt issuance amounting to € 2,349 million (net of issuance costs) of which € 946 million are related to the issuance of Tier 2 capital instruments following the full redemption of preference shares, b) debt repayment amounting to € 158 million and c) accrued interest and amortisation of debt issuance costs amounting to € 3 million.

19. Due from credit institutions

	2018 € million	2017 € million
Pledged deposits with banks	**2,986**	2,757
Placements and other receivables from banks	**85**	9
Current accounts and settlement balances with banks	**119**	101
Total	**3,190**	2,867

	2018 € million	2017 € million
Included in due from credit institutions were unsubordinated amounts due from:		
-subsidiary undertakings	**1,263**	1,200

As at 31 December 2018, the pledged deposits with banks mainly include: a) € 1,187 million cash collaterals for guarantees relating to the lending activities of banking subsidiaries, b) € 1,661 million cash collaterals on risk mitigation contracts for derivative transactions and repurchase agreements (CSAs, GMRAs), c) € 93 million pledged deposits relating to the securitized issues and d) € 44 million cash collateral relating to the sale of the Romanian disposal group (note 25).

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

	2018 € million	2017 € million
Greece	**18**	9
Other European countries	**3,156**	2,806
Other countries	**16**	52
Total	**3,190**	2,867

20. Securities held for trading

	2018 € million	2017 € million
Debt Securities (note 6.2.1.3)	**18**	12
Equity securities	**-**	1
Total	**18**	13

21. 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 2018			31 December 2017		
	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 in not applied/ held for trading						
- Interest rate swaps	**24,648**	**1,726**	**1,265**	16,475	1,736	1,279
- Interest rate options	**7,113**	**35**	**76**	3,502	32	87
- Cross currency interest rate swaps	**286**	**20**	**19**	686	16	30
- Currency forwards/currency swaps	**3,106**	**16**	**15**	2,735	17	11
- Currency options	**214**	**1**	**1**	1,211	13	9
- Commodity derivatives	**56**	**7**	**7**	88	4	4
- Credit default swaps	**801**	**4**	**7**	458	-	5
- Other (see below)	**10**	**0**	**-**	116	0	0
		1,809	**1,390**		1,818	1,425
Derivatives designated as fair value hedges						
- Interest rate swaps	**3,110**	**1**	**347**	1,570	10	307
- Cross currency interest rate swaps	**4**	**0**	**0**	-	-	-
		1	**347**		10	307
Derivatives designated as cash flow hedges						
- Interest rate swaps	**154**	**-**	**58**	192	0	54
- Cross currency interest rate swaps	**3,078**	**65**	**101**	3,032	56	64
		65	**159**		56	118
Total derivatives assets/liabilities		**1,875**	**1,896**		1,884	1,850

Other derivative contracts include exchange traded interest futures and warrants.

Information on the fair value measurement and offsetting of derivatives is provided in notes 6.3 and 6.2.1.4, 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 2018, the Bank recognized a loss of € 59.3 million (2017: € 65 million gain) from changes in the carrying amount of the hedging instruments, used as the basis of recognizing hedge ineffectiveness and € 59.1 million gain (2017: € 66 million loss) from changes in the carrying amount of the hedged items attributable to the hedged risk. The amount of hedge ineffectiveness recognized for 2018 in income statement was € 0.2 million loss (2017: € 1 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 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 2018, an amount of € 3 million gain was recognised in other comprehensive income in relation to derivatives designated as cash flow hedges. Furthermore, in 2018, the ineffectiveness recognized in the income statement that arose from cash flow hedges was nil (2017: 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 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

	31 December 2017			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Sovereign	1,197	-	-	1,197
Banks	0	298	316	614
Corporate	72	0	1	73
Total	1,269	298	317	1,884

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

	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 table presents data relating to the hedged items under fair value hedges for the year ended 31 December 2018:

	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 2018, the accumulated amount of fair value hedge adjustments remaining in the statement of financial position for any items that have ceased to be adjusted for hedging gains and losses was € 183 million.

(b) Cash flow hedges

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

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

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

22. Loans and advances to customers

	As at		
	31 December 2018 € million	**1 January 2018 € million**	31 December 2017 € million
Loans and advances to customers at amortised cost			
- Gross carrying amount	37,275	39,797	39,883
- Impairment allowance	(7,967)	(9,904)	(9,017)
Carrying Amount	**29,308**	**29,893**	30,866
Loans and advances to customers at FVTPL	**46**	**52**	-
Total	**29,354**	**29,945**	30,866

The table below presents the carrying amount of loans and advances to customers per business unit and per stage as at 31 December 2018:

	31 December 2018				1 January 2018	31 December 2017
	12-month ECL € million	**Lifetime ECL not credit-impaired € million**	**Lifetime ECL credit-impaired [(1)] € million**	**Total amount € million**	**Total amount € million**	Total amount € million
Loans and advances to customers at amortised cost						
Mortgage lending:						
- Gross carrying amount	5,686	3,397	5,812	14,895	15,299	15,298
- Impairment allowance	(30)	(279)	(2,145)	(2,454)	(2,518)	(2,211)
Carrying Amount	5,656	3,118	3,667	12,441	12,781	13,087
Consumer lending:						
- Gross carrying amount	1,441	245	1,176	2,862	4,212	4,212
- Impairment allowance	(33)	(91)	(919)	(1,043)	(2,112)	(1,920)
Carrying Amount	1,408	154	257	1,819	2,100	2,292
Small Business lending:						
- Gross carrying amount	1,282	1,171	3,397	5,850	6,320	6,320
- Impairment allowance	(11)	(211)	(1,520)	(1,742)	(2,168)	(1,876)
Carrying Amount	1,271	960	1,877	4,108	4,152	4,444
Wholesale lending:						
- Gross carrying amount	7,429	1,416	4,823	13,668	13,966	14,053
- Impairment allowance	(50)	(97)	(2,581)	(2,728)	(3,106)	(3,010)
Carrying Amount	7,379	1,319	2,242	10,940	10,860	11,043
Total loans and advances to customers at AC						
- Gross carrying amount	15,838	6,229	15,208	37,275	39,797	39,883
- Impairment allowance	(124)	(678)	(7,165)	(7,967)	(9,904)	(9,017)
Carrying Amount	**15,714**	**5,551**	**8,043**	**29,308**	**29,893**	30,866
Loans and advances to customers at FVTPL						
Carrying Amount				**46**	**52**	-
Total				**29,354**	**29,945**	30,866

Non-performing loans sale transactions

As of 30 September 2018, a non performing unsecured consumer loan (NPL) portfolio of the Bank of total unpaid principal ca. € 1.1 bn (€ 1 bn on balance sheet exposure that carried an impairment allowance of € 0.94 bn) was classified as held for sale, as its sale was considered highly probable. On 16 October 2018, the Bank, in line with its NPE reduction plan, announced that it has entered into an agreement with the consortium of B2Holding ASA and Waterfall Asset Management to sell the aforementioned portfolio. The servicing of the portfolio will remain with Financial Planning Services (FPS), which is the 100% owned by the Bank licensed NPL servicer, and will take place in cooperation with the licensed company B2Kapital S.A. In December 2018, the Bank completed the disposal with no impact in the income statement.

In November 2017 the Bank, in line with its NPE reduction plan, completed the sale of a non-performing unsecured consumer loan portfolio of total principal amount of € 1.5 bn to Intrum Hellas DAC (Intrum), a company controlled by Intrum Group for a cash consideration of € 35 million. The on balance sheet exposure amounted to € 608 million and carried an impairment allowance of € 584 million. Accordingly, the Bank recorded a gain of € 8.5 million, net of selling costs of € 2 million, in 'Other income/ (expenses)' and its NPE ratio was reduced by ca 70 bps. The servicing of the portfolio has been assigned to Financial Planning Services S.A. (FPS).

Non-performing loans classified as held for sale

In December 2018, the Bank entered into an agreement for the disposal of a non-performing corporate loans' portfolio. Accordingly, gross loans of € 65 million, which carried an impairment allowance of € 45 million were classified as held for sale, as their sale was considered highly probable. In January 2019, the disposal of the aforementioned loan portfolio was completed.

The above sales of non-performing lending exposures in 2018 which were performed within the context of the Bank's NPE reduction targets are consistent with the hold-to-collect business model for loans and advances to customers carried at amortized cost.

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

	2018 € million	2017 € million
Gross investment in finance leases receivable:		
Not later than 1 year	**26**	28
Later than 1 year and not later than 5 years	**3**	4
Later than 5 years	**16**	18
	45	50
Unearned future finance income on finance leases	**(2)**	(2)
Net investment in finance leases	**43**	48
Less: Impairment allowance	**(26)**	(27)
Total	**17**	21
The net investment in finance leases is analysed as follows:		
Not later than 1 year	**26**	27
Later than 1 year and not later than 5 years	**2**	3
Later than 5 years	**15**	18
	43	48
Less: Impairment allowance	**(26)**	(27)
Total	**17**	21

23. Impairment allowance for loans and advances to customers

The movement of the impairment allowance for loans and advances to customers by product line and stage is calculated by reference to opening and closing balances for the reporting period from 1 January 2018 to 31 December 2018:

	31 December 2018												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL € million	Lifetime ECL not credit-impaired loans € million	Lifetime ECL credit-impaired loans € million	12-month ECL € million	Lifetime ECL not credit-impaired loans € million	Lifetime ECL credit-impaired loans € million	12-month ECL € million	Lifetime ECL not credit-impaired loans € million	Lifetime ECL credit-impaired loans € million	12-month ECL € million	Lifetime ECL not credit-impaired loans € million	Lifetime ECL credit-impaired loans € million	Total € million
Impairment allowance as at 1 January (note 2.3.2)	56	147	2,903	23	299	2,196	38	115	1,959	15	203	1,950	9,904
Transfer of ECL allowance [2]	(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 [3]	-	-	(123)	-	-	(0)	(0)	(0)	(937)	(0)	(0)	(0)	(1,060)
Amounts written off	-	-	(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] 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 34).

[2] Impairment allowances in relation to loans sold, modified (where the modification resulted in a derecognition) and those that have been reclassified as held for sale during the year, are presented in line "Loans and advances derecognized /reclassified as held for sale during the year".

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

	31 December 2018 € million
Impairment loss on loans and advances to customers	(549)
Modification loss on loans and advances to customers	(68)
Impairment loss for credit related commitments	11
Total	**(606)**

The movement of the impairment allowance for loans and advances to customers by product line for the reporting period from 1 January 2017 to 31 December 2017 is as follows:

	31 December 2017				
	Wholesale € million	Mortgage € million	Consumer € million	Small business € million	Total € million
Balance at 1 January	3,710	2,152	2,572	1,870	10,304
Impairment loss for the year [(1)]	140	221	189	97	647
Recoveries of amounts previously written off	0	-	4	0	4
Amounts written off/ sales [(2)]	(722)	(45)	(761)	(10)	(1,538)
NPV unwinding	(83)	(59)	(37)	(71)	(250)
Foreign exchange differences and other movements	(35)	(58)	(47)	(10)	(150)
Balance at 31 December	3,010	2,211	1,920	1,876	9,017

[(1)] Impairment losses on loans and advances as presented in the income statement for the year ended 31 December 2017 include an amount of € 69 million, which has been provided against the Bank's placements to its banking subsidiaries 'Eurobank Private Bank Luxembourg S.A' & 'Eurobank Cyprus LtD.' that are pledged as collateral for the funding of other Bank's subsidiaries.

[(2)] For the year ended 31 December 2017, an amount of € 584 million included relates to the non-performing loans sale transactions (note 22).

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.

24. Investment securities

	As at		
	31 December 2018 € million	1 January 2018 € million	31 December 2017 € million
Investment securities at FVOCI	**5,578**	**5,408**	-
Investment securities at amortized cost	**941**	**993**	-
Investment securities at FVTPL	**78**	**162**	-
Available-for-sale investment securities	-	-	4,884
Debt securities lending portfolio	-	-	1,624
Held-to-maturity investment securities	-	-	108
Total	**6,597**	**6,563**	6,616

Further information in relation to investment securities is provided in note 6.2.1.3.

Sale of European Financial Stability Facility (EFSF) notes

In the context of the European Stability Mechanism (ESM)/EFSF decision for the implementation of the short-term Greek debt relief measures, the Bank had entered into an agreement with the EFSF, the Hellenic Republic, the HFSF and the Bank of Greece on 16 March 2017 for the exchange of the EFSF floating rate notes which had been used for the recapitalization of the Greek banking system for fixed rate ones, which would be sold back after a short holding period to EFSF.

In January 2018, the Bank concluded the sale of its entire position in the aforementioned EFSF notes, as the remaining fixed rate said bonds of face value of € 362 million were sold back to the EFSF, with no effect in the Bank's income statement.

24.1 Movement of investment securities

	31 December 2018					
	Investment securities at FVOCI		Investment securities at amortised cost		Investment securities at FVTPL	
	12-month ECL € million	Lifetime ECL not credit-impaired € million	12-month ECL € million	Lifetime ECL not credit-impaired € million	€ million	Total € 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	**(2)**	**2**	**-**	**-**	**-**	**-**
Net gains/(losses) from changes in fair value for the year	**(112)**	**1**	**-**	**-**	**2**	**(109)**
Amortisation of premiums/discounts and interest	**77**	**0**	**(1)**	**3**	**0**	**79**
Changes in fair value due to hedging	**-**	**-**	**(2)**	**6**	**-**	**4**
Exchange adjustments and other movements	**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**

	31 December 2017			
	Available-for-sale securities € million	Debt securities lending portfolio € million	Held-to-maturity securities € million	Total € million
Balance at 1 January	2,791	8,149	126	11,066
Additions, net off disposals and redemptions	1,722	(6,493)	(18)	(4,789)
Net gains/(losses) from changes in fair value for the year	335	-	-	335
Amortisation of premiums/discounts and interest	53	4	0	57
Changes in fair value due to hedging	-	(36)	-	(36)
Impairment losses/reversal	(1)	-	-	(1)
Exchange adjustments and other	(16)	-	-	(16)
Balance at 31 December	4,884	1,624	108	6,616

24.2 Movement of ECL

	31 December 2018		
	Measured at amortised cost € million	Measured at FVOCI € million	Total € million
Balance at 1 January	**55**	**12**	**67**
New financial assets purchased	**0**	**11**	**11**
- of which 12-month ECL	*-*	*11*	*11*
Changes due to change in ECL risk parameters	***(25)***	***(0)***	***(25)***
- of which lifetime ECL not credit-impaired	**(25)**	**(0)**	**(25)**
Financial assets disposed during the year	**-**	**(6)**	**(6)**
- of which 12-month ECL	*-*	*(6)*	*(6)*
Financial assets redeemed during the year	**(0)**	**(1)**	**(1)**
Balance as at 31 December	**30**	**16**	**46**

During the year ended 31 December 2018, the impairment allowance of the investment securities of the Bank decreased by € 21 million, mainly due to the improvement of the credit quality of the Hellenic Republic as depicted in the markets and due to the improvement of the long-term prospects of the Greek Economy after the end of the third economic adjustment programme.

24.3 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 (available-for-sale investment securities until the end of 31 December 2017) are recognized in a corresponding revaluation reserve in equity. The movement of the reserve is as follows:

	2018 € million	2017 € million
Balance at 1 January under IAS 39	**206**	4
Impact of adopting IFRS 9 at 1 January 2018 (note 2.3.2)	**13**	-
Balance at 1 January under IFRS 9	**219**	-
Net gains/(losses) from changes in fair value	**(111)**	335
Tax (expense)/benefit	**30**	(97)
	(81)	238
Net (gains)/losses transferred to net profit on disposal	**(78)**	(59)
Impairment losses (ECL as of 1 January 2018) transferred to net profit	**11**	0
Tax (expense)/benefit on net (gains)/losses transferred to net profit on disposal	**22**	15
Tax (expense)/benefit on impairment losses (ECL as of 1 January 2018) transferred to net profit	**(3)**	(0)
	(48)	(44)
Net (gains)/losses transferred to net profit from fair value hedges/amortization of mark-to-market	**(52)**	11
Tax (expense)/benefit	**15**	(3)
	(37)	8
Balance at 31 December	**53**	206

25. Shares in subsidiaries

The following is a listing of the Bank's subsidiaries at 31 December 2018:

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.		100.00	Greece	Mutual fund and asset management
Eurobank Equities S.A.		100.00	Greece	Capital markets and advisory services
Eurobank Ergasias Leasing S.A.		100.00	Greece	Leasing
Eurobank Factors S.A.		100.00	Greece	Factoring
Eurobank FPS Loans and Credits Claim Management S.A.		100.00	Greece	Loans and Credits Claim Management
Eurobank Property Services S.A.		100.00	Greece	Real estate services
Hellenic Post Credit S.A.		50.00	Greece	Credit card management and other services
Herald Greece Real Estate development and services company 1		100.00	Greece	Real estate
Herald Greece Real Estate development and services company 2		100.00	Greece	Real estate
Standard Ktimatiki S.A.		100.00	Greece	Real Estate
Modern Hoteling	b	100.00	Greece	Real Estate
Eurobank Bulgaria A.D.		56.14	Bulgaria	Banking
ERB Leasing Bulgaria EAD	d	100.00	Bulgaria	Leasing
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	m	100.00	Channel Islands	Special purpose financing vehicle
CEH Balkan Holdings Ltd (2)	h	100.00	Cyprus	Holding company
Chamia Enterprises Company Ltd (2)	g	100.00	Cyprus	Special purpose investment vehicle
NEU Property Holdings Ltd		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
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
Eurobank A.D. Beograd		55.80	Serbia	Banking
ERB Leasing A.D. Beograd (1) (2)		17.51	Serbia	Leasing
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	f	-	Ireland	Special purpose financing vehicle
Astarti Designated Activity Company	k	-	Ireland	Special purpose financing vehicle

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

(2) *Entities under liquidation at 31 December 2018.*

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) Eurobank Household Lending Services S.A., Greece

In December 2017, the Board of Directors of the Bank and its wholly owned subsidiary Eurobank Household Lending Services S.A. decided the merger of the two companies, by absorption of the latter by the former, in the context of the Group's rationalization of operations. In June 2018, the above merger was completed, after all necessary approvals from the competent authorities were obtained.

The legal merger was effected on the basis of the legal merger balance sheets of each company as at 31 December 2017. As of that date the Bank incorporated the assets and the liabilities of the merged subsidiary amounting to € 19.6 million (of which € 11 million intercompany balances with the Bank) and € 4.4 million (of which € 0.04 million intercompany balances with the Bank) respectively, at their carrying amounts in the consolidated financial statements without any fair value adjustments. The difference of ca € 0.5 million loss between the carrying amount of the investment in the merged subsidiary before the legal merger amounting to € 15.6 million, and the carrying amount of net assets acquired amounting to € 15.2 million has been recognized in the Bank's equity, in accordance with the Bank's accounting policy for such transactions (note 2.2.1).

The results of Eurobank Household Lending Services S.A. were incorporated in the Bank's income statement prospectively, as of 1 January 2018, amounting to € 0.4 million gain until the completion of the legal merger at the end of June 2018.

(b) Modern Hoteling, Greece

In the context of the management of its non performing exposures (NPEs), in January 2018, the Bank established a wholly owned subsidiary, Modern Hoteling, to operate as a real estate company in Greece.

(c) ERB Property Services Sofia E.A.D., Bulgaria

In January 2018, the Bank disposed its participation in ERB Property Services Sofia A.D. to Eurobank Bulgaria A.D. for a total cash consideration of € 2 million resulting to the recognition of gain of a corresponding amount. On the same date, the Bank's subsidiary Eurobank Property Services S.A. also disposed its participation in the company to Eurobank Bulgaria A.D. In June 2018, following the aforementioned transactions, the company's name changed to ERB Property Services Sofia E.A.D.

(d) ERB Leasing Bulgaria EAD, Bulgaria

In February 2018, the Bank established the wholly owned subsidiary ERB Leasing Bulgaria EAD, as a result of the transformation of ERB Leasing EAD through a spin-off, whereby part of the assets and liabilities of the latter were passed to the new established company.

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

In September 2017, the sale of Bancpost S.A., ERB Retail Services IFN S.A. and ERB Leasing IFN S.A. in Romania (Romanian disposal group) was considered highly probable, therefore, as of 30 September 2017 the Bank's direct holdings in Bancpost S.A. and ERB Leasing IFN S.A. were classified as held for sale. On 24 November 2017, the Bank announced that it had reached an agreement with Banca Transilvania (BT) with regards to the above sale. Following the said agreement, on 3 April 2018, Eurobank and BT concluded all the remaining actions and fulfilled all the conditions precedent for the completion of the transfer of the shares held by the Bank in the above companies to BT.

The consideration of the transaction, net of related costs, reached € 150 million, in addition to the € 48 million capital return received by the Bank in the first quarter 2018. In the fourth quarter of 2018, the Bank has recognized a provision of € 14.1 million following the finalization of the completion statements of the Romanian disposal group.

According to the Sale Purchase Agreement (SPA) executed between Eurobank Group (the Seller) and Banca Transilvania (BT) (the Purchaser), there are also specific indemnity clauses based on which the Purchaser could claim specific amounts, subject to certain limitations on total claims. In the above context in the third quarter 2018, the Bank has recognized a provision of € 15 million for Bancpost S.A. tax issues (see "Tax audit" below). Accordingly, an amount of € 28 million loss has been recognized in "Other income/(expenses)" for the year ended 31 December 2018. The transaction has been capital accretive and liquidity positive for the Group.

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 amount in total to € 40 million, approximately. The said taxes result from the imposition of additional withholding taxes of € 30 million (including surcharges of € 10 million) and additional corporate income tax of € 10 million deriving from both the disallowance for tax deduction of certain expenses and the recognition of deemed taxable income.

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

According to the SPA, the Purchaser could claim, subject to certain limitations on the total claim, from the Seller the tax liabilities that will be assessed by a tax authority as a result of a Tax audit covering all tax matters in respect of all open (non-expired) taxable periods of Bancpost S.A. until the completion of the transaction. In respect of the above, in the third quarter of 2018, the Bank has recognized the aforementioned provision of € 15 million in the income statement.

Romanian National Authority for Consumer Protection (ANPC)

In addition, in July and August, the Romanian National Authority for Consumer Protection (ANPC) has imposed two fines on Bancpost S.A. in connection with complaints raised by certain Bancpost S.A. lending clients. The cases related to portfolios of performing loans which were assigned by Bancpost S.A. to ERB New Europe Funding II B.V. (NEF II) (an SPV in the Netherlands controlled by Eurobank) in 2008. The ANPC has imposed fines on Bancpost S.A. totalling € 68 thousand, as it challenged the capacity of NEF II to acquire the loan receivables from Bancpost S.A. and of certain alleged breaches of consumer protection laws. Furthermore, the ANPC concluded that payments by the consumers such as interests, fees, penalties in relation to all loans assigned to NEF II were illegally cashed in by NEF II for a period of ten years and should be reimbursed by Bancpost S.A.

The Group is in close cooperation with BT, which is in the process of challenging the ANPC minutes in courts.

The SPA for the sale of Bancpost S.A. mentioned above between Eurobank Group and BT also provides for an indemnity in respect of losses incurred from claims made against the Purchaser or Bancpost S.A. in relation to loans and receivables of the above perimeter.

The Group is closely monitoring the developments of all the above cases of Bancpost S.A. and is in the process of analyzing the potential implications that may affect its legal rights and obligations, including those arising under the SPA with BT.

(f) Maximus Hellas Designated Activity Company, Ireland

In the second quarter of 2018, the Bank established Maximus Hellas Designated Activity Company, a special purpose financing vehicle for the securitization of a portfolio of corporate and SME (small and medium enterprise) loans (note 33).

(g) Chamia Enterprises Company Ltd, Cyprus

In June 2018, the extraordinary General Meeting of the Shareholders of the company decided its liquidation.

(h) CEH Balkan Holdings Ltd, Cyprus

In December 2018, the sole shareholder of the company decided its liquidation.

(i) Eurobank Property Services S.A., Romania

In September 2018, the Bank disposed its participation in Eurobank Property Services S.A. in Romania to Eurobank Property Services S.A. in Greece, resulting to the recognition of gain of € 0.1 million.

(j) ERB Property Services d.o.o. Beograd, Serbia

In October 2018, the Bank disposed its participation in ERB Property Services d.o.o. Beograd in Serbia to Eurobank Property Services S.A. in Greece resulting to the recognition of gain of € 0.01 million.

(k) Astarti Designated Activity Company, Ireland

In October 2018, the Bank established Astarti Designated Activity Company, a special purpose financing vehicle for the securitization of a portfolio of consumer and SME (small and medium enterprise) loans (note 33).

(l) ERB Leasing E.A.D, Bulgaria

In November 2018, the Bank completed the sale of the 100% of the shares and voting rights of ERB Leasing E.A.D. with a resulting loss of € 2.2 million recognized in ”other income/expenses”.

(m) ERB Hellas Funding Ltd, Channel Islands

In December 2018, the share capital of the company increased by € 0.8 million.

Agreement for the acquisition of Piraeus Bank Bulgaria A.D. by Eurobank Bulgaria A.D.

On 7 November 2018, the Bank announced that it has concluded an agreement with Piraeus Bank S.A. for 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") (the "Transaction").

The Transaction is subject to approvals by the relevant competent regulatory and supervisory authorities and is expected to take place during the second quarter of 2019. Further information about the Transaction is provided in the consolidated financial statements for the year ended 31 December 2018.

Post balance sheet events

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 will 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 agreement is subject to standard conditions for similar transactions, and is envisaged to take place by early April 2019 via the acquisition from Cerved, for a consideration of € 8 million, of the entire share capital of EPS. 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 is in line with the Bank's strategy to focus on its core operations, adopting an outsourcing business model in relation to real estate services.

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.

Impairment in Subsidiaries undertakings

In the context of the impairment review of its investment in subsidiary undertakings, the Bank reassessed the recoverable amounts of its subsidiaries. Accordingly, the following impairment charge was recorded:

	2018 € million	2017 € million
Eurobank Ergasias Leasing S.A.	**33**	33
ERB Istanbul Holding A.S.	**10**	-
Eurobank Asset Management Mutual Fund Mngt Company S.A.	**-**	32
Bancpost S.A [(1)]	**-**	31
NEU Property Holdings Ltd	**-**	3
CEH Balkan Holdings Ltd	**-**	3
Eurobank Household Lending Services S.A.	**-**	2
Standard Ktimatiki S.A.	**-**	1
Total	**43**	105

(1) *It includes costs to sell € 13.8 million of which an amount of € 2.3 million has been paid until 31 December 2017.*

26. Property, plant and equipment

	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 (note 25)	**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 (note 25)	**(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**

	31 December 2017			
	Land, buildings, leasehold improvements € million	Furniture, equipment, motor vehicles € million	Computer hardware, software € million	Total € million
Cost:				
Balance at 1 January	361	117	317	795
Transfers	(8)	(0)	0	(8)
Additions	9	6	14	29
Disposals and write-offs	(6)	(2)	(1)	(9)
Balance at 31 December	356	121	330	807
Accumulated depreciation:				
Balance at 1 January	(161)	(105)	(291)	(557)
Transfers	1	0	(0)	1
Disposals and write-offs	5	2	2	9
Charge for the year	(10)	(4)	(9)	(23)
Balance at 31 December	(165)	(107)	(298)	(570)
Net book value at 31 December	191	14	32	237

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

27. Investment property

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

	2018 € million	2017 € million
Cost:		
Balance at 1 January	**28**	67
Transfers from/ to property plant and equipment	**20**	8
Disposals and write-offs	**(4)**	(46)
Impairments	**(3)**	(1)
Balance at 31 December	**41**	28
Accumulated depreciation:		
Balance at 1 January	**(6)**	(8)
Transfers from/ to property plant and equipment	**(4)**	(1)
Disposals and write-offs	**1**	4
Charge for the year	**(0)**	(1)
Balance at 31 December	**(9)**	(6)
Net book value at 31 December	**32**	22

In December 2017, the Bank proceeded with the sale of the real estate property on which "King George Hotel" operates, of the mobile equipment of the latter and of the relevant trademarks to Lampsa Hellenic Hotels S.A. for a total consideration of € 43 million. The resulting gain of € 6 million has been recognized in 'Other income/(expenses)'.

During the year ended 31 December 2018, an amount of € 3.7 million (2017: € 3 million) was recognized as rental income from investment property in income from non-banking services. As at 31 December 2018 and 2017, there were no capital commitments in relation to investment property.

The fair value measurements as at 31 December 2018 for each class of investment property are presented in the below table. 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 are categorized within level 3 of the fair value hierarchy.

	31 December 2018		31 December 2017	
	Fair Value € million	Book Value € million	Fair Value € million	Book Value € million
Class of Property				
-Commercial	**36**	**29**	25	19
-Land Plots	**3**	**3**	3	3
Total	**39**	**32**	28	22

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.

28. Intangible assets

	2018 € million	2017 € million
Cost:		
Balance at 1 January	**252**	211
Arising from merger (note 25)	**23**	-
Additions	**50**	41
Transfers	**(17)**	-
Disposals and write-offs	**(5)**	-
Balance at 31 December	**303**	252
Accumulated amortisation:		
Balance at 1 January	**(147)**	(131)
Arising from merger (note 25)	**(22)**	-
Transfers	**7**	-
Amortization charge for the year	**(18)**	(16)
Disposals and write-offs	**3**	-
Balance at 31 December	**(177)**	(147)
Net book value at 31 December	**126**	105

29. Other assets

	2018 € million	2017 € million
Receivable from Deposit Guarantee and Investment Fund	**707**	704
Repossessed properties and relative prepayments	**437**	272
Pledged amount for a Greek sovereign risk financial guarantee	**240**	241
Balances under settlement [(2)]	**108**	1
Prepaid expenses and accrued income	**70**	70
Income tax receivable [(1)]	**46**	140
Other guarantees	**44**	35
Investments in associates and joint ventures (see below)	**37**	34
Other assets	**77**	111
Total	**1,766**	1,608

[(1)] Includes withholding taxes, net of provisions.

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

In the context of the active management of the NPEs, the Bank leveraged the electronic auction platform, which was launched in February 2018, in order to effectively process the planned foreclosure actions. This resulted to the net increase of repossessed properties and relative prepayments by € 165 million for the year ended 31 December 2018.

As at 31 December 2018, other assets net of provisions, amounting to € 77 million include, among others, receivables related to (a) prepayments to suppliers, (b) public entities and (c) legal cases.

The following is the listing of the Bank's associates and joint ventures as at 31 December 2018:

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)]	a	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.	b	Greece	Real estate	30.00

[(1)] *Entities under liquidation.*

[(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.*

(a) Famar S.A., Luxembourg

In September 2018, the terms of the restructuring of Famar S.A. and its group of companies (controlled through its subsidiary Famar Holding S.A.R.L.) were agreed among the company, the Greek banks and Pillarstone Europe LLP. In December 2018, upon the completion of the restructuring with the signing of the relevant agreement, there was a change of control for Famar Holding S.A.R.L. and its subsidiaries, as the Greek banks were replaced as shareholders by Pillarstone Bidco S.C.A. (an affiliate of Pillarstone Europe LLP). In particular, according to the agreement, the Bank acquired 10.67% of the D non – voting shares of Pillarstone Bidco S.C.A. that are entitled only to the potential equity upside of Famar Group derived from Famar's disposal. Accordingly, in December 2018, the Extraordinary General Meeting of the Shareholders of Famar S.A decided its liquidation.

(b) Alpha Investment Property Commercial Stores S.A. (AEP Commercial Stores S.A.), Greece

In December 2018, in the context of the debt restructuring of a Bank's corporate customer, AEP Commercial Stores S.A., a special purpose real estate company was established, in which Eurobank holds a participation of 30%. Based on the contractual terms of the shareholders' agreements and the substance of the arrangement, AEP Commercial Stores S.A. is accounted as a joint venture of the Group.

Post balance sheet events

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. will be accounted as a joint venture of the Bank.

Unisoft S.A., Greece

In March 2019, the Bank increased its participation in Unisoft S.A. from 18% to 29%, as a result of the share capital increase performed in the context of the company's debt restructuring scheme.

30. Due to central banks

	2018 € million	2017 € million
Secured borrowing from ECB and BoG	**2,050**	9,994

As at 31 December 2018, the Bank's dependency on Eurosystem financing facilities decreased to € 2.1 bn (of which € 0.5 bn funding from ELA), mainly due to deposits inflows, assets deleveraging, increased market repos on Greek Government securities and two asset backed securities issues sold via a private placement to an international institutional investor (note 33) (31 December 2017: € 10 bn, of which € 7.9 bn from ELA). As at 28 February 2019, the Bank has eliminated the use of ELA funding while the total Eurosystem funding further declined to € 1.3 bn.

31. Due to credit institutions

	2018 € million	2017 € million
Secured borrowing from credit institutions	**7,909**	5,903
Borrowings from international financial and similar institutions	**429**	353
Interbank takings	**789**	825
Current accounts and settlement balances with banks	**120**	87
Total	**9,247**	7,168

As at 31 December 2018, the majority of secured borrowing transactions with other banks were conducted with foreign financial institutions with collaterals Greek and other Eurozone members government securities, EFSF/ESM bonds and covered bonds issued by the Bank (notes 6.2.1.3 and 33). As at 31 December 2018, borrowings from international financial and similar institutions include borrowings from European Investment Bank and other similar institutions.

32. Due to customers

	2018 € million	2017 € million
Savings and current accounts	**16,187**	14,250
Term deposits	**12,778**	10,712
Repurchase agreements	**170**	53
Total	**29,135**	25,015

Following the transition to IFRS 9, the Bank has revoked the fair value option designation under IAS 39 for structured deposits and measures them at amortized cost after separating the embedded derivatives from the host contracts. In November 2018, these deposits matured.

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 2018 the amount that the Bank transferred to the Greek State was almost nill (2017: nill).

33. Debt securities in issue

	2018 € million	2017 € million
Securitizations	**1,245**	-
Subordinated notes (Tier 2)	**947**	-
Covered bonds	**499**	497
Medium-term notes (EMTN)	**6**	6
Total	**2,697**	503

Securitisations

In June 2018 the Bank, through its special purpose financing vehicle Maximus Hellas DAC, issued asset backed securities of total face value of € 1,251.5 million, collateralized by a portfolio of corporate and SME (small and medium enterprise) loans, which consisted of: (a) a senior class of notes (the "Class A notes") of face value € 813.5 million at a cost of three month Euribor plus 250 basis points which was sold via a private placement to two Asset-Backed Commercial Paper – ABCP conduits administered by an international institutional investor and (b) a subordinated class of notes (the "Class B notes") of face value of € 438 million, which were retained by the Bank. The transaction has been accounted as a collateralized borrowing, considering that the Bank retains all significant risks and rewards of the securitized assets. As at 31 December 2018, the outstanding amount of Class A notes amounted to € 654 million.

In addition, in December 2018, the Bank through its special purpose financing vehicle Astarti DAC, issued asset backed securities of total face value of € 810 million, collateralized by a portfolio of small business and consumer loans, which consisted of: (a) a senior class of notes (the "Class A notes") of face value € 591 million at a cost of three month Euribor plus 210 basis points which was sold via a private placement to two Asset-Backed Commercial Paper – ABCP conduits administered by an international institutional investor and (b) a subordinated class of notes (the “Class B notes”) of face value of € 219 million, which were retained by the Bank. The transaction has been accounted as a collateralized borrowing, considering that the Bank retains all significant risks and rewards of the securitized assets.

In July 2018, mortgage backed securities of face value of € 1,041 million issued by the special purpose financing vehicle Tegea PLC and retained by the Bank, were fully redeemed.

Tier 2 Capital instruments

In the context of the first stream of Hellenic Republic’s plan to support liquidity in the Greek economy under Law 3723/2008, the Bank had issued preference shares with nominal value of € 950 million, which were subscribed by the Hellenic Republic. On 18 January 2018, the Bank announced the completion of the full redemption of the said preference shares, according to the provisions of par. 1a, article 1 of Law 3723/2008 and the decisions of its Extraordinary General Meeting of the Shareholders (ordinary and preference) as of 3 November 2017.

The above redemption was completed partially with cash and partially with the issuance of Tier 2 capital instruments of total amount € 950,000,000 according to the EU Regulation 575/2013 and does not have any impact on the Group’s CET1 based on the full implementation of Basel III rules.

Pursuant to the terms of their issuance, the above Tier 2 capital instruments have a maturity of ten years (until 17 January 2028) and pay fixed nominal interest rate of 6.41% (recognized in the income statement), which shall be payable semi-annually. On 31 December 2018, the said instruments amounted to € 947 million, including € 4 million issuance costs and € 0.2 million accrued interest.

Further information, in respect of the Tier 2 capital instruments and the relevant legal framework is provided in the note 37 of the financial statements for the year ended 31 December 2017.

Covered bonds

During the year ended 31 December 2018, the Bank proceeded with the issue of covered bonds of face value of € 2,720 million and the cancellation/partial cancellation of covered bonds of face value of € 2,030 million. All of the aforementioned issues were fully retained by the Bank.

Post balance sheet events

In February 2019, the Bank proceeded with the partial cancellation of covered bonds of face value of € 50 million, previously retained by the Bank.

On 18 March 2019, the Bank through its special purpose entity, Maximus Hellas DAC, proceeded with the upsize of its 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 and € 428 million class B notes were 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).

34. Other liabilities

	2018 € million	2017 € million
Balances under settlement [1]	**151**	138
Deferred income and accrued expenses	**62**	56
Standard legal staff retirement indemnity obligations (note 35)	**43**	44
ECL allowance for credit related commitments (note 6.2.1.2)	**305**	-
Sovereign risk financial guarantee	**43**	45
Other provisions	**130**	69
Other liabilities	**138**	124
Total	**872**	476

[1] Includes settlement balances relating to bank cheques and remittances, credit card transactions and other banking activities.

As at 31 December 2018, other liabilities amounting to € 138 million mainly consist of payables relating with (a) suppliers and creditors, (b) contributions to insurance organizations and (c) duties and other taxes and (d) trading liabilities.

As at 31 December 2018, other provisions amounting to € 130 million (31 December 2017: € 69 million) mainly include: (a) € 50 million for outstanding litigations and claims in dispute (note 42), (b) € 8 million for restructuring costs, related to the Voluntary Exit Scheme (VES), (c) € 38 million for other operational risk events, of which € 31 million relates to the sale of Romania disposal group (note 25) and (d) € 34 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.

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

	31 December 2018		
	Litigations and claims in dispute € million	**Other € million**	**Total € million**
Balance at 1 January	**58**	**11**	**69**
Amounts charged during the year	**2**	**116**	**118**
Amounts used during the year	**(0)**	**(0)**	**(0)**
Amounts reversed during the year	**(8)**	**(2)**	**(10)**
Other movements [1]	**(2)**	**(45)**	**(47)**
Balance at 31 December	**50**	**80**	**130**

	31 December 2017		
	Litigations and claims in dispute € million	Other € million	Total € million
Balance at 1 January	55	44	99
Amounts charged during the year	5	7	12
Amounts used during the year	(1)	(5)	(6)
Amounts reversed during the year	(1)	(2)	(3)
Other movements [1]	(0)	(33)	(33)
Balance at 31 December	58	11	69

[1] Other movements include an amount of € 46 million (31 December 2017: € 33 million) for benefits paid under the VES program, which is presented in the movement of the liability for standard legal staff retirement indemnity obligations (note 35).

The implementation of the VES, already in force during 2017, was designed for the Group's employees in Greece in line with the principal commitments of the Bank's restructuring plan (note 5). In that context an additional scheme with the same terms was announced on 19 January 2018 and implemented for the employees of specific eligible units in Greece.

Up to 31 December 2018, the cost for the VES amounted to € 156 million, net of provision for retirement benefits, out of which € 50 million has been recognized in the Bank's income statement for the year ended 31 December 2018. The estimated annual saving, as a result of the additional VES cost recognised in the year ended 31 December 2018, amounts to € 20 million.

35. 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:

	2018 € million	2017 € million
Balance at 1 January	**44**	40
Arising from merger (note 25)	**1**	-
Current service cost	**3**	3
Interest cost	**1**	1
Past service cost and (gains)/losses on settlements	**43**	29
Remeasurements:		
Actuarial (gains)/losses arising from changes in financial assumptions	**(2)**	1
Actuarial (gains)/losses arising from changes in demographic assumptions	**1**	-
Actuarial (gains)/losses arising from experience adjustments	**1**	3
Benefits paid	**(49)**	(33)
Balance at 31 December	**43**	44

The benefits paid by the Bank during 2018, in the context of the Voluntary Exit Scheme (VES) (note 34), amounted to € 49 million. The provision for staff retirement obligations of the staff that participated in the above scheme, amounted to € 5 million.

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

	2018 %	2017 %
Discount rate	**1.9**	1.8
Future salary increases	**2.3**	2.6

As at 31 December 2018, the average duration of the standard legal staff retirement indemnity obligation was 18 years (2017: 18 years).

A quantitative sensitivity analysis based on reasonable changes to significant actuarial assumptions as at 31 December 2018 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 (€ 3.0 million)/ € 3.3 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 € 3.3 million/ (€ 3.0 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.

36. Ordinary share capital and share premium

The par value of the Bank's shares is € 0.30 per share (2017: € 0.30). All shares are fully paid. The balance of ordinary share capital, share premium and the number of ordinary shares issued by the Bank, are as follows:

	Ordinary share capital € million	Share premium € million	Number of issued ordinary shares
Balance at 31 December 2018	**656**	**8,056**	**2,185,998,765**

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.

37. Hybrid capital

On 18 March 2005, the Bank, through its Special Purpose Entity, ERB Hellas Funding Limited, issued € 200 million preferred securities which represent Lower Tier 1 capital for the Bank (Tier 1 Series A). As at 31 December 2018, the outstanding amount of Series A was € 2 million (including allocated issue costs). The preferred securities have no fixed redemption date and give the issuer the right to call the issue at par on 18 March 2010 and annually thereafter and are listed on the Luxembourg and Frankfurt Stock Exchanges.

On 2 November 2005, the Bank, through its Special Purpose Entity, ERB Hellas Funding Limited, issued € 400 million preferred securities which represent Lower Tier 1 capital for the Bank (Tier 1 Series B). As at 31 December 2018, the outstanding amount of Series B was € 4 million (including allocated issue costs). The preferred securities have no fixed redemption date and give the issuer the right to call the issue at par on 2 November 2015 and quarterly thereafter and are listed on the London Stock Exchange.

On 9 November and on 21 December 2005 the Bank, through its Special Purpose Entity, ERB Hellas Funding Limited, issued € 150 million and € 50 million preferred securities respectively, which represent Lower Tier 1 capital for the Bank (Tier 1, form a single Series C). As at 31 December 2017, the outstanding amount of Series C was € 17 million (including allocated issue costs). The preferred securities have no fixed redemption date and give the issuer the right to call the issue at par on 9 January 2011 and quarterly thereafter. The preferred securities are listed on the London, Frankfurt and Euronext Amsterdam Stock Exchanges.

On 29 July 2009, the Bank, through its Special Purpose Entity, ERB Hellas Funding Limited, issued € 300 million preferred securities which represent Tier 1 capital for the Bank (Tier 1 Series D). As at 31 December 2018, the outstanding amount of Series D was € 19 million (including allocated issue costs). The preferred securities have no fixed redemption date and give the issuer the right to call the issue after five years from the issue date and annually thereafter. In addition the securities, subject to certain conditions, are convertible at the option of the bondholder and the issuer after October 2014 into Eurobank ordinary shares at the lower of an exchange ratio based on (a) a 12% discount to the share market price during the period preceding the exchange or (b) the nominal value of Bank's ordinary share. The preferred securities are listed on the London Stock Exchange.

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. Pursuant to the said terms of the preferred securities, ERB Hellas Funding Ltd has announced the non-payment of the non-cumulative preferred dividend of the above series of preferred securities for 2016, 2017 and on 9 January 2018.

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 year ended 31 December 2018 is analyzed as follows (no movement for the year ended 31 December 2017):

	Series A € million	Series B € million	Series C € million	Series D € million	Total € million
Balance at 1 January	**2**	**4**	**18**	**19**	**43**
Buy Back	**-**	**-**	**(1)**	**-**	**(1)**
Balance at 31 December	**2**	**4**	**17**	**19**	**42**

Following the redemption of the Greek State – owned preference shares (note 33) on 17 January 2018, and in accordance with the terms of the preferred securities, ERB Hellas Funding Ltd declared and paid the non-cumulative dividends of € 2.5 million (€ 2.2 million after tax) in total on the Series A, B, C and D. As at 31 December 2018, the dividend attributable to preferred securities holders amounted to € 2.8 million (€ 2.4 million, after tax).

38. Special reserves

	Statutory reserves € million	Non-taxed reserves € million	Fair value reserve € million	Other reserves € million	Total € million
Balance at 1 January 2017	204	891	4	6,441	7,540
Transfers between reserves	-	(4)	-	-	(4)
Available-for-sale securities					
- changes in fair value, net of tax	-	-	238	-	238
- transfer to net profit, net of tax	-	-	(36)	-	(36)
Cash flow hedges					
- changes in fair value, net of tax	-	-	-	30	30
- transfer to net profit, net of tax	-	-	-	(11)	(11)
Actuarial gains/(losses) on post employment benefit obligations, net of tax	-	-	-	(2)	(2)
Balance at 31 December 2017	204	887	206	6,458	7,755
Balance at 1 January 2018	**204**	**887**	**206**	**6,458**	**7,755**
Impact of adopting IFRS 9 at 1 January 2018 (note 2.3.2)	**-**		13	**-**	**13**
Balance at 1 January 2018, as restated	**204**	**887**	**219**	**6,458**	**7,768**
Merger with a Bank's subsidiary (note 25)	**1**	**0**	**-**	**0**	**1**
Debt securities at FVOCI					
- changes in fair value, net of tax	-	-	(81)	-	**(81)**
- transfer to net profit, net of tax	-	-	(85)	-	**(85)**
Cash flow hedges					
- changes in fair value, net of tax	-	-	-	26	**26**
- transfer to net profit, net of tax	-	-	-	(21)	**(21)**
Actuarial gains/(losses) on post employment benefit obligations, net of tax	-	-	-	0	**0**
Balance at 31 December 2018	**205**	**887**	**53**	**6,463**	**7,608**

As at 31 December 2018, included in other reserves: (a) a Bank's special reserve amounted to € 5,579 million (2017: € 5,579 million), which can be only either capitalized or offset against losses carried forward pursuant to corporate law in force and (b) cash flow hedging reserve amounted to € 37 million loss (2017: € 42 million loss).

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

39. Dividends

Based on the 2018 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.

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 and 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 30 and 31) and Due to customers (note 32), as appropriate.

The Bank enters into securitizations of various classes of loans (corporate, small and medium enterprise and consumer), 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 2018, the securitizations' issues held by third parties amounted to € 1,245 million (2017: liability nil) (note 33).

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	
	2018	2017
	€ million	€ million
Securities held for trading	**6**	5
Loans and advances to customers	**15,789**	24,704
-securitized loans [(1)]	***2,268***	*436*
-pledged loans under covered bond program	***5,014***	*4,658*
-pledged loans with central banks	***8,337***	*19,552*
-other pledged loans	***170***	*58*
Investment securities	**6,374**	6,513
Total	**22,169**	31,222

[(1)] *It includes securitized loans of issues held by the Bank, not used for funding.*

(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 2018, the Bank had obtained through reverse repos securities of face value of € 117 million, sold under repurchase agreements with cash value of € 123 million (2017: € 180 million and € 255 million, respectively). Furthermore, as at 31 December 2018, the Bank had obtained Greek treasury bills as collaterals for derivatives transactions with the Hellenic Republic of face value of € 1.2 bn, sold under repurchase agreements with € 860 million cash value (2017: € 970 million and € 623 million, respectively).

As at 31 December 2018, 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 € 15,618 million, while the associated liability from the above transactions amounted to € 11,974 million of which € 100 million repo agreements offset in the balance sheet against reverse repo deals (notes 30, 31, 32 and 33 and 6.2.1.4) (2017: cash value € 20,655 million and liability € 16,190 million of which € 235 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 19 and 29.

41. Operating leases

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.

Leases as lessee-Non-cancellable operating lease rentals are payable as follows:

	2018 € million	2017 € million
Not later than one year	**26**	29
Later than one year and no later than five years	**56**	52
Later than five years	**25**	34
Total	**107**	115

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

Leases as lessor-Non-cancellable operating lease rentals are receivable as follows:

	2018 € million	2017 € million
Not later than one year	**2**	1
Later than one year and no later than five years	**3**	2
Later than five years	**1**	2
Total	**6**	5

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:

	2018 € million	2017 € million
- Financial guarantees contracts	**971**	884
- Financial guarantees contracts given to Bank SPVs' issuing EMTNs	**87**	115
- Other credit related Commitments	**254**	368
- Commitments to extent credit	**172**	118
Total	**1,484**	1,485

As of 31 December 2018, the credit related commitments within the scope of IFRS 9 impairment requirements amounted to € 4.9 bn, including revocable loan commitments of € 2.2 bn and guarantees of € 1.2 bn 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 € 305 million (1 January 2018: € 331 million) are provided in the note 6.

In addition, the Bank has issued a sovereign risk financial guarantee of € 0.24 bn (2017: € 0.24 bn) 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 € 10 million as at 31 December 2018 (2017: € 7 million), representing 15% of its resolution contribution payment obligation to the Single Resolution Fund (SRF) for the years 2016-2018.

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 2018, the commitments related to capital expenditure amounted to € 13 million (2017: € 26 million).

Legal Proceedings

As at 31 December 2018, a provision of € 50 million has been recorded for a number of legal proceedings outstanding against the Bank (2017: € 58 million), as set out in note 34. The said amount includes € 34 million for an outstanding litigation related to the acquisition of New TT Hellenic Postbank S.A. in 2013 (31 December 2017: € 40 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. The 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. 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 favor 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 before the Supreme Court scheduled to be heard on 20 May 2019. As to certain aspects of Swiss Francs loans there is also a pending lawsuit before the Supreme Court at plenary session which was initiated from an individual lawsuit.

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. Other significant and post balance sheet events

Merger Agreement between Eurobank and 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").

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 Board of Directors of Eurobank and Grivalia approved the Draft Merger Agreement for the absorption of Grivalia by Eurobank according to the provisions of the Greek Codified Law 2190/1920, in conjunction with the provisions of Greek laws 2166/1993 and 2515/1997, as in force. The merger shall be conducted by accounting consolidation of assets and liabilities of the companies being merged and, specifically, by contribution of Grivalia's assets and liabilities to Eurobank, as described on the merger balance sheet of 31 December 2018 of Grivalia. The proposed share exchange ratio is 15.80000000414930 new Eurobank ordinary registered shares for every 1 Grivalia ordinary registered share, while Eurobank shareholders will retain the number of Eurobank ordinary shares they currently hold. The Merger will result in an ownership split of the enlarged share capital of ca. 58.9% owned by existing Eurobank shareholders and ca. 41.1% by existing Grivalia shareholders.

The above is subject to the fulfillment of certain conditions, including the approval of the Draft Merger Agreement by the General Meetings of shareholders of the merging companies on 5 April 2019 and the receipt of the remaining necessary permissions and approvals by the competent authorities, which are expected by May 2019. The Merger will enhance Eurobank's capital position and its earnings capacity, which in turn will enable the acceleration of its NPE reduction plan.

Following the completion of the merger, Fairfax group, which currently holds 18.40% and 51.43% in Eurobank and Grivalia, respectively, will become the largest shareholder in the merged entity with a ca. 33.03% shareholding.

As at December 2018, Grivalia group had total assets of € 1.16 bn and total liabilities of € 0.29 bn. The Annual Financial Report of Grivalia for the year ended 31 December 2018 is available at the company's website.

Agreement with the Real estate management company

On 22 February 2019, the Board of Directors of Eurobank 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 S.A." (the "Company"). The Grivalia Management Company S.A. 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 shall conclude a 10-year advisory services agreement with Grivalia Management Company S.A. for the combined real estate portfolio of the merging entities, which will come into force upon completion of the merger.

Further information on the above transactions are provided in the Bank's Report of the Directors for the year ended 31 December 2018 and in the relevant announcements on the Bank's website dated 26 November 2018 and 8 February, 25 February and 1 March 2019.

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

Note 2.1 - Basis of preparation
Note 5 - Capital Management
Note 6.2 - Financial risk factors
Note 15 - Income tax
Note 22 - Loans and advances to customers
Note 25 - Shares in subsidiaries
Note 29 - Other assets
Note 30 - Due to central banks
Note 33 - Debt securities in issue
Note 42 - Contingent liabilities and other commitments

44. Related parties

As of November 2015, the percentage of the Bank's ordinary shares with voting rights held by the Hellenic Financial Stability Fund (HFSF) stands at 2.38%. The HFSF is 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 2018.

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 2018			31 December 2017		
	Subsidiaries [2] € million	**KMP [1] and Entities controlled or jointly controlled by KMP € million**	**Associates and joint ventures € million**	Subsidiaries € million	KMP [1] and Entities controlled or jointly controlled by KMP € million	Associates and joint ventures € million
Due from credit institutions [3]	**1,263.38**	-	-	1,200.06	-	-
Securities held for trading	-	-	-	1.53	-	-
Derivative financial instruments assets	**4.56**	-	-	9.07	-	0.01
Investment securities	**0.46**	-	-	0.12	-	-
Loans and advances to customers [3]	**1,370.91**	**7.19**	**0.83**	1,486.35	6.74	9.38
Other assets	**5.18**	-	**6.86**	45.16	-	4.37
Due to credit institutions	**3,082.19**	-	-	3,388.37	-	-
Derivative financial instruments liabilities	**5.03**	-	-	0.88	-	-
Due to customers	**405.53**	**3.35**	**44.40**	479.34	2.09	45.08
Debt securities in issue	**6.72**	-	-	6.64	-	-
Other liabilities [3]	**299.47**	-	**1.88**	15.94	-	2.98
Net interest income	**(4.26)**	**0.04**	**(6.77)**	1.28	0.04	(8.28)
Net banking fee and commission income	**7.28**	-	**12.78**	3.95	-	6.87
Dividend income	**105.60**	-	**16.08**	122.87	-	7.83
Net trading income	**0.26**	-	**0.23**	(1.34)	-	0.16
Gains less losses from investment securities	-	-	**0.31**	-	-	0.02
Other operating income/(expense)	**2.40**	-	**(22.70)**	(15.39)	-	(22.20)
Other Impairment losses and provisions (note 14)	**(34.00)**	-	-	-	-	-
Impairment losses relating to loans and advances and collectors' fees	**(39.40)**	-	**(10.58)**	(86.54)	-	(2.93)
Guarantees issued [4]	**515.83**	-	-	660.78	-	4.60
Guarantees received	-	**0.03**	-	-	0.04	-

(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 25.

(3) As of 1 January 2018, the impairment allowance for credit related commitments is presented within Other liabilities/Provisions

(4) Furthermore as of 31 December 2018, € 1.2 bn guarantees have been issued relating to the lending activities of banking subsidiaries for which the equivalent pledged amount is included above in "Due from credit institutions" (2017: € 1.2 bn).

For the year ended 31 December 2018, there were no material transactions with the HFSF. In addition, as at 31 December 2018, the loans, net of provisions, granted to entities controlled by the Bank pursuant to the terms of the relevant share pledge agreements (note 25) amounted to € 3.3 million (2017: € 4.7 million).

Following the assessment of the recoverable amount of the Bank's funding to its subsidiaries, associates and joint ventures, an impairment loss of € 11 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 2018, the respective impairment allowance amounted to € 300 million (as at 1 January 2018, including the IFRS 9 transitions impact: € 323 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 € 6.49 million (2017: € 5.34 million) and long-term employee benefits of € 1.54 million (2017: € 0.75 million). In addition, the Bank has formed a defined benefit obligation for the KMP amounting to € 1.68 million as at 31 December 2018 (2017: € 0.88 million), while the respective cost for the year amounts to € 0.09 million (2017: € 0.07 million).

45. 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" ('PricewaterhouseCoopers Certified Auditors' for 2017) for audit and other services provided are analyzed as follows:

	2018 € million	2017 € million
Statutory audit	**(1.2)**	(1.2)
Tax Certificate	**(0.2)**	(0.2)
Other audit related assignments	**(0.1)**	(0.2)
Non audit assignments	**(0.1)**	(1.2)
Total	**(1.6)**	(2.8)

It is noted that the non-audit assignments fees of "KPMG Certified Auditors A.E." Greece ("PricewaterhouseCoopers Auditing Company S.A." Greece for 2017), statutory auditor of the Bank, amounted to € 0.03 million.

46. 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.

Following the aforementioned AGM decision, the BoD was constituted as a body at the BoD meeting of 10 July 2018, as follows:

N. Karamouzis	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
G. Chryssikos	Non-Executive
R. Boucher	Non-Executive Independent
R. Kakar	Non-Executive Independent
B. P. Martin	Non-Executive Independent
J. Mirza	Non-Executive Independent
G. Myhal	Non-Executive Independent
L. Reichlin	Non-Executive Independent
A. Beritsi	Non-Executive (HFSF representative under Law 3864/2010)

Athens, 29 March 2019

Nikolaos V. Karamouzis	**Fokion C. Karavias**	**Harris V. Kokologiannis**
I.D. No AB - 336562	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