EUROBANK ERGASIAS SERVICES and HOLDINGS S.A.

CONSOLIDATED PILLAR 3 REPORT

FOR THE YEAR ENDED

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1. Introduction – General Information

Until 20 March 2020 Eurobank Ergasias S.A. was a credit institution based in Greece and supervised on a standalone and consolidated basis by the European Central Bank (ECB) and the Bank of Greece (BoG).

On 20 March 2020, the demerger of Eurobank Ergasias S.A. (Demerged Entity) through the banking sector's hive down and its transfer to a new credit institution that has been established under the corporate name "Eurobank S.A." (the Bank) was completed. Following the above, the corporate name of the Demerged Entity has been amended to "Eurobank Ergasias Services and Holdings S.A." (the Company or Eurobank Holdings).

Following the demerger "Eurobank Ergasias Services and Holdings S.A." is supervised on a consolidated basis and "Eurobank S.A." is supervised on a standalone basis by ECB and BoG.

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

1.1 Corporate Transformation Plan

In November 2018, Group announced its transformation plan, which included the Merger with Grivalia, which was completed in April 2019, and the non performing loans' (NPEs) reduction Acceleration Plan comprising the following steps: a) the securitisation of ca. € 2 billion of NPEs, through the issue of senior, mezzanine and junior notes and the sale of the 95% of the above mentioned mezzanine and junior notes to a third party investor resulting to the de-recognition of the respective securitised NPEs from the Bank's balance sheet (project Pillar), b) the securitisation of ca. € 7.5 billion of NPEs, through the issue of senior, mezzanine and junior notes (project Cairo), c) the legal separation of the core and non-core operations of the Bank through the hive-down of the core operations to a new subsidiary, d) the entry of a strategic investor into Financial Planning Services S.A. (FPS), the licensed 100% owned loan servicer of the Bank, including the Bank's Troubled Asset Group, e) the sale of a portion of Cairo mezzanine and junior notes to a third party investor and, f) the contemplated de-recognition of the securitised NPEs through the disposal /distribution of the remaining Cairo mezzanine and junior notes, subject inter alia to corporate and regulatory approvals.

Pillar securitisation

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

As at 31 December 2020, the Group retained 100% of senior, 5% of mezzanine and junior notes of Pillar securitisation.

Cairo securitisation

In June 2019, the Group through its special purpose financing vehicles (SPVs) 'Cairo No. 1 Finance Designated Activity Company', 'Cairo No. 2 Finance Designated Activity Company' and 'Cairo No. 3 Finance Designated Activity Company',

issued asset backed securities (notes) of total value of ca. € 7.5 billion, collateralized by a mixed assets portfolio primarily of non performing loans, which have been fully retained by the Group. The securitisation notes consisted of € 2,409 million senior issued at par, € 1,464 million mezzanine issued at par and € 3,633 million junior of issue price € 1.

In the context of Law 4649/2019 ('Hercules' – Hellenic Asset Protection Scheme) voted by the Greek parliament on 16 December 2019, the SPVs opted in for the state guarantee scheme. Specifically, the Group submitted the relevant applications to the Ministry of Finance on 25 February 2020 for Cairo No. 1 and Cairo No. 2 and on 15 May 2020 for Cairo No. 3. As a prerequisite to the above law, the Group has already obtained the required external rating of the senior notes.

In December 2019, the Group announced that it has entered into binding agreements with doValue S.p.A. ("doValue") for the sale of 20% of the mezzanine and 50.1% of the junior notes of the aforementioned Cairo securitisation for a cash consideration of ca. € 14 million. Upon the completion of the transaction, in June 2020, the Group ceased to have control over the SPVs.

In June 2020, Eurobank Holdings, following a decision of the Board of Directors, proceeded to the contribution of the retained Cairo notes, i.e. 75% of the mezzanine and 44.9% of the junior notes, to its Cyprus-based subsidiary Mairanus Limited renamed to 'Cairo Mezz Plc in exchange for the newly-issued shares.

On 7 July 2020, the Board of Directors (BoD) of Eurobank Holdings proposed to the General Shareholders' Meeting the distribution of Cairo Mezz Plc shares to Eurobank Holding's shareholders through the decrease in kind of its share capital. The approval of the General Shareholders' Meeting for the aforementioned corporate action was granted on 28 July 2020. The BoD decision for the contribution of the notes retained by Eurobank Holdings, initiated the distribution process and clearly demonstrated Management's commitment to a specific plan for the notes' disposal as the last step to the Group's Corporate Transformation Plan, and eventually the Cairo loan portfolio's de-recognition from its balance sheet.

In September 2020, following the completion of the distribution of the Cairo Mezz Plc shares, the underlying loan portfolio and the related assets and liabilities were derecognized from the Group's balance sheet on the basis that the Group transferred substantially all risks and rewards of the portfolio's ownership and ceased to have control over the portfolio, which resides with the Class B1 noteholders. In addition, the Group recognized the retained notes on its balance sheet, i.e. 100% of the senior, 5% of mezzanine and junior notes.

Further information is provided in the Interim Consolidated Financial Statements notes 20, 34 and 44.

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

On 19 December 2019, the Group announced that it has reached an agreement with doValue to dispose 80% of its subsidiary Eurobank FPS Loans and Credits Claim Management S.A. ("FPS"), for a cash consideration of € 248 million, subject to certain adjustments.

As per the agreement, FPS, which was part of Eurobank Ergasias Troubled Asset Group ("TAG") - the unit responsible for the management of the troubled assets portfolio, would take over Eurobank Ergasias TAG unit in order for the sale to be completed. The relevant arrangements were completed at the end of March 2020.

After receiving all regulatory approvals, the above sale transaction was completed on 5 June 2020.

Upon the completion of the transaction, the Group derecognized the assets and liabilities of FPS and recognized its retained 20% interest as an associate, to be accounted for using the equity method of accounting, at its fair value of € 62 million. The fair value was determined by reference to the implied enterprise value of € 310 million for 100% of the entity.

Introduction – General Information

The terms of the transaction remained as per the binding agreement of 19 December 2019, which provided for certain adjustments related with the net cash position of the company, assets under management as of December 2019 and the net economic benefit accrued since 1 January 2020.

The cash consideration received, after the above consideration adjustments, amounted to € 211 million and the resulting gain on disposal was € 219 million before tax (€ 173 million after tax), including the costs directly attributable to the transaction and the remeasurement of the retained interest in FPS.

Further information is provided in the Interim Consolidated Financial Statements note 30.

Corporate Transformation – Hive Down

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

On 31 July 2019, the BoD of Eurobank Ergasias S.A. approved the Draft Demerger Deed through the aforementioned hive down and establishment of a new company-credit institution, pursuant to Article 16 of Law 2515/1997 and Articles 57 (3) and 59- 74 of Law 4601/2019, as currently in force. In particular, the demerger would involve the hive-down of the banking sector of Eurobank Ergasias S.A., to which the assets and the liabilities are included, as described on the transformation balance sheet of the hived-down sector as at 30 June 2019 ("Transformation Date"). In accordance with the Draft Demerger Deed, Eurobank Ergasias S.A. retained the 95% of the Pillar mezzanine and junior notes which in September 2019 were sold to a third party investor, as well as the participation in Pillar DAC and the related Pillar real estate entity.

On 31 January 2020, the Demerged Entity's Extraordinary General Shareholders' Meeting (EGM) resolved, among others, a) the approval of the aforementioned demerger of Eurobank Ergasias through the banking sector's hive down and the establishment of a new company-credit institution under the corporate name "Eurobank S.A." b) the approval of the Draft Demerger Deed as well as the Articles of Association of the Beneficiary, as they were approved by the Demerged Entity's BoD and c) the adjustment of the Articles of Association of the Demerged Entity which would cease to be a credit institution by amending its object and corporate name as was also approved by its BoD.

On 20 March 2020, the demerger of Eurobank Ergasias S.A. through the banking sector's hive down and the establishment of a new company-credit institution ("Demerger") under the corporate name "Eurobank S.A." as well as the Articles of Association of the Beneficiary were approved by virtue of the decision of the Ministry of Development and Investments No 31847/20.03.2020, which was registered on the same day in the General Commercial Registry. At the aforementioned date: a) the Demerged Entity becomes the shareholder of the Beneficiary by acquiring all the shares issued by the Beneficiary and more specifically 3,683,244,830 common registered shares, of a nominal value of € 1.10 each and b) the Beneficiary substitutes the Demerged Entity, by way of universal succession, to all the transferred assets and liabilities, as set out in the transformation balance sheet of the hived down sector as at 30 June 2019 and formed up to 20 March 2020, day of the Demerger's completion.

On 23 March 2020, the Articles of Association of the Demerged Entity were amended with the decision of the Ministry of Development and Investments, Number 32403/23.03.2020, which was registered on the same day in the General Commercial Registry. According to article 1 of the Articles of Association, the corporate name and the distinctive title of the Demerged Entity is amended to "Eurobank Ergasias Services and Holdings S.A." and "Eurobank Holdings" respectively. The date of change of the Company's corporate name and distinctive title in the Athens Exchange was set for 24 March 2020.

Introduction – General Information

In accordance with the Demerger Deed, Eurobank Holdings maintained activities and assets that are not related to the main banking activities but are mainly related to the strategic planning of the administration of non-performing loans and the provision of services to the Group companies and third parties. Furthermore, Eurobank Holdings retained the 95% of Cairo mezzanine and junior notes, the preferred securities and the participations in certain subsidiaries including Be Business Exchanges S.A., Cairo DACs, Pillar and Cairo real estate entities. Accordingly, the Beneficiary, receives the remaining assets (including 100% of Cairo senior and 5% of mezzanine and junior notes that were recognized at fair value) and liabilities that constitute the banking sector, by issuing shares to the Demerged entity. Further information is provided in the Interim Consolidated Financial Statements note 44.

Tier 2 Capital instruments

In January 2018, Eurobank Ergasias S.A. issued Tier 2 capital instruments of face value of € 950 million, in replacement of the preference shares which had been issued in the context of the first stream of Hellenic Republic's plan to support liquidity in the Greek economy under Law 3723/2008. The aforementioned instruments, which have a maturity of ten years (until 17 January 2028) and pay fixed nominal interest rate of 6.41%, that shall be payable semi-annually, as at 31 December 2020, amounted to € 947 million, including € 3 million unamortized issuance costs and € 167 thousand accrued interest.

Considering that the obligations of Eurobank Ergasias S. A (Demerged Entity) arising from the Tier 2 Subordinated Capital Instruments were not transferred to the Beneficiary (i.e. Eurobank S.A.), the latter pursuant to the terms of the Draft Demerger Deed has explicitly and irrevocably undertaken to fulfil the relevant obligations. In that context, on 20 March 2020, the Beneficiary issued a subordinated instrument of equivalent terms with those of Tier 2 mentioned above, which was fully subscribed by the Demerged Entity. Further information is provided in the Interim Consolidated Financial Statements notes 34 and 44.

1.2 Regulatory framework

The general Basel III framework is structured around three mutually reinforcing pillars:

- Pillar 1 defines the minimum regulatory capital requirements, based on principles, rules and methods specifying and measuring credit, market and operational risk. These requirements are covered by regulatory own funds, according to the rules and specifications of CRR.
- Pillar 2 addresses the internal processes for assessing overall capital adequacy in relation to risks (Internal Capital Adequacy Assessment Process - ICAAP and Internal Liquidity Assessment Process - ILAAP). Pillar 2 also introduces the Supervisory Review & Evaluation Process (SREP), which assesses the internal capital adequacy of credit institutions.
- Pillar 3 deals with market discipline by developing a set of quantitative and qualitative disclosure requirements, which allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes and hence the capital adequacy and the internal liquidity adequacy of credit institutions.

According to the CRD IV provisions (with gradual implementation until 2019):

- Minimum Common Equity Tier 1 (CET1) ratio: 4.5%;
- Minimum Tier 1 ratio: 6%;
- Minimum Total Capital ratio: 8%
- Furthermore, banks are required to maintain in addition to the Common Equity Tier 1 capital a capital conservation buffer equal to 2.5 % (from 1 January 2019) of their total risk exposure amount calculated.

As a result the minimum ratios which must be met, including the capital conservation buffer and which shall apply from 1 January 2019 are:

- Minimum CET1 capital ratio 7%; and
- Total capital adequacy ratio 10.5%.

Additional capital buffers that CRD IV introduces are the following:

a) Countercyclical buffer. The purpose of this buffer is to counteract the effects of the economic cycle on banks' lending activity, thus making the supply of credit less volatile and possibly even reduce the probability of credit bubbles or crunches. Credit institutions are required under the CRD IV to build up an additional buffer of 0 - 2.5% of CET1 during periods of excess credit growth, according to national circumstances. According to relevant BoG Executive Committee Act No 180, the countercyclical buffer was set at 0% for the first quarter of 2021.

b) Global systemic institution buffer (G-SIIs). CRD IV includes a mandatory systemic risk buffer of CET1 for banks that are identified by the relevant authority as globally systemically important, which is not applicable to Greek banks.

c) Other systemically important institutions buffer (O-SIIs). On 3.04.2020, European Banking Authority (EBA) published the updated list of O-SIIs in the EU. O-SIIs are those institutions which are deemed systematically relevant in addition to G-SIIs, already identified. This list reflects also the additional capital buffers that the relevant authorities have set for the O-SIIs. The list of O-SIIs is disclosed on an annual basis, along with any CET1 capital buffer requirements which may need to be set or reset. In case of higher capital requirements, these become applicable at least one year after the publication of the O-SIIs list, to give institutions enough time to adjust to the new buffer requirements.

   The EBA methodology has been applied to compute the scores for all the institutions operating in Greece using consolidated data. Based on the above scoring system, all Greek O-SIIs are classified in bucket 4 which corresponds to a capital buffer up to 1% initially to be phased in until 2022. In order to provide further flexibility to credit institutions in reaction to the coronavirus and mitigate the subsequent financial impact, the initial phasing-in period has been adjusted until 2023. The date of activation was 1 January 2016 and BoG's Executive Committee Acts 163/1.11.2019 and 174/26.6.2020 set the O-SII buffer for Greek Institutions for the years 2020 and 2021 at 0.50% respectively.

Regulatory Developments

On 14 February 2020 European Commission published Regulation 2020/429 that amends the Regulation 680/2014, which sets out implementing technical standards on supervisory reporting of institutions under the Capital Requirements Regulation or CRR (575/2013). The key amendments in Regulation 2020/429 relate to reporting on securitisation positions, IFRS 16 on leases, non-performing exposures, and liquidity. This Regulation is based on the draft implementing technical standards submitted by EBA to EC. Regulation 2020/429 shall enter into force on the day following that of its publication in the Official Journal of the European Union.

On 20 May 2020, The European Central Bank (ECB) published a guide for consultation that explains how it expects banks to safely and prudently manage climate-related and environmental risks and disclose such risks transparently under the current prudential framework. The ECB wants banks to account for these risks given that they drive existing prudential risk categories and can substantially impact the real economy and banks.

On 29 May 2020, the European Banking Authority (EBA) published its Guidelines on loan origination and monitoring that expect Banks to develop robust and prudent standards to ensure newly originated loans are assessed properly. The Guidelines set requirements for assessing the borrowers' creditworthiness together with the handling of information and data for the purposes of such assessments. In these requirements, the Guidelines bring together the EBA's prudential and consumer protection objectives. The application of the Guidelines for newly originated loans needs to be in place within

Q2 2021, while gradually and until Q2 2024 the application of the Guidelines need to be expanded to existing loans that have been renegotiated and to the stock of existing loans.

On 18 September 2020, The European Central Bank (ECB) published the finalised guide outlining the methodology it uses to assess how euro area banks calculate their exposure to counterparty credit risk (CCR) and advanced credit valuation adjustment (CVA) risk. The guide published explains the methodology the ECB uses to assess the validity of such models, especially in internal model investigations.

On 27 November 2020 ECB published its final and amended guide on climate-related and environmental risks following up with banks in two concrete steps. In early 2021 it will ask banks to conduct a self-assessment in light of the supervisory expectations outlined in the guide and to draw up action plans on that basis. The ECB will then benchmark the banks' self-assessments and plans and challenge them in the supervisory dialogue. In 2022 it will conduct a full supervisory review of banks' practices and take concrete follow-up measures where needed and it will include in the next supervisory stress test the climate related risks.

On 22 December 2020, EBA published an update to the reporting framework 3.0 and the ITS on institutions' Pillar 3 public disclosures, the mapping of quantitative disclosure data and supervisory reporting and also a summary of the frequency of disclosure of each template and table, in accordance with the Regulation (EU) No 876/2019 (CRR2). The disclosure requirements are applicable from June 2021.

On 1 March 2021, EBA published a consultation paper on draft implementing technical standards (ITS) on Pillar 3 disclosures on Environmental, Social and Governance (ESG) risks. The draft ITS put forward comparable disclosures that show how climate change may exacerbate other risks within institutions' balance sheets, how institutions are mitigating those risks, and their green asset ratio on exposures financing taxonomy-aligned activities, such as those consistent with the Paris agreement goals. These disclosure requirements are applicable from June 2022 on an annual basis during the first year and biannually thereinafter.

COVID-19 regulatory measures

The COVID-19 pandemic constitutes an unprecedented challenge with very severe socio-economic consequences. Regulatory authorities have responded to this challenge with a number of regulatory measures.

On 12 March 2020, the ECB announced a number of measures to ensure that its directly supervised banks can continue to fulfil their role in funding the real economy. Specifically, banks will be allowed, among others, to operate temporarily below the level of capital defined by the Pillar 2 Guidance and the Combined Buffer Requirement. Banks will also be allowed to partially use capital instruments that do not qualify as CET1 capital, for example Additional Tier 1 (AT1) or Tier 2 instruments, to meet the Pillar 2 Requirements (P2R).

On 20 March 2020 the ECB published FAQs on supervisory measures in reaction to the coronavirus. The relief measures cover the following: a) asset quality deterioration and non performing loans, b) operational aspects of supervision and c) capital and liquidity requirements.

Following the ECB recommendation of 27 March of 2020 (2020/19) on dividend distribution, the ECB recommends that at least until 1 October 2020 no dividends are paid out and no irrevocable commitment to pay out dividends is undertaken by the credit institutions for the financial year 2019 and 2020 and that credit institutions refrain from share buy-backs aimed at remunerating shareholders. On 15 December 2020, ECB extended its recommendation to banks on dividend distributions and share buy-backs until 30 September 2021 and asked banks to be extremely moderate with regard to variable remuneration.

Introduction – General Information

On 2 April 2020, the European Banking Authority (EBA) published "Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis before 30 June 2020". On 25 June 2020, EBA introduced a new deadline of 30 September 2020 replacing the previous date of 30 June 2020. The aim of these Guidelines was to clarify the requirements for public and private moratoria, which if fulfilled, will help avoid the classification of exposures under the definition of forbearance or as defaulted under distressed restructuring.

On 2 December 2020, EBA has decided to reactivate its Guidelines on Legislative and non-legislative moratoria due to the exceptional circumstances of the second COVID-19 wave. This reactivation will ensure that loans, which had previously not benefitted from payment moratoria, can now also benefit from them. The role of banks to ensure the continued flow of lending to clients remains of utmost importance. These Guidelines, which will apply until 31 March 2021, include additional safeguards against the risk of an undue increase in unrecognised losses on banks' balance sheet.

On 28 April 2020, the European Commission has proposed targeted "quick fix" amendments to Regulation (EU) No 575/2013 (Capital Requirements Regulation) and Regulation (EU) 2019/876 (CRR2) in order to mitigate the economic impact of the 2019 coronavirus disease (COVID-19) pandemic.

The changes include exceptional temporary measures to alleviate the immediate impact of Coronavirus-related developments, by adapting the timeline of the application of international accounting standards on banks' capital, by treating more favourably public guarantees granted during this crisis, by postponing the date of application of the leverage ratio buffer and by modifying the way of excluding certain exposures from the calculation of the leverage ratio.

The Commission also proposed to advance the date of application: a) of several agreed measures that incentivise banks to finance employees, SMEs and infrastructure projects and b) of the exemption of certain software assets from capital deductions. The Commission called for the Council and the Parliament to adopt the amending Regulation before the end of June 2020.

On 9 June 2020, the Economic and Monetary Affairs Committee MEPs agreed to apply specific changes to the capital requirements regulation (CRR), which will have to be coherently applied in the EU. Banks will have to monitor the effects of the pandemic on their balance sheets, pay close attention to non-performing loans and apply know-your-customer standards. The material changes include:

- Extension by two years of the transitional arrangements for IFRS 9 (international accounting standard) and further relief measures (capital add back);
- Alignment of minimum coverage requirements for non-performing loans guaranteed by the public sector with those guaranteed by official export credit agencies;
- Deferred application of the leverage ratio buffer by one year to January 2023;
- Advanced application of a more favourable prudential treatment of loans to pensioners or employees with a permanent contract that are backed by the borrower's pension or salary;
- Advanced application of both, the SME and infrastructure supporting factors, which allows for a more favourable prudential treatment of certain exposures to SMEs and infrastructure;
- Temporary treatment of unrealised gains and losses measured at fair value through other comprehensive income in relation to exposures to central of governments, to regional governments, to local authorities and public sector entities;
- Banks will no longer be required to fully deduct software assets from their capital.

The plenary session vote on the CRR 'quick fix' took place on 19 June 2020.

On June 24, 2020, the EU Council announced that it had adopted Regulation (EU) 2020/873 (CRR 'quick fix') amending Regulations (EU) No 575/2013, as amended ("CRR") and (EU) 2019/876 ("CRR2").

The CRR 'quick fix' legislation intends to help credit institutions to mitigate impact of the COVID-19 outbreak and to provide incentives for banks to continue lending to business and consumers.

On 2 June 2020, EBA published GL/2020/11 guidelines to clarify how to report the CRR 'quick fix' amendments that have an impact on templates related to the leverage ratio, own funds and credit risk. The reporting requirements clarified by these guidelines will apply from the date of publication until the reporting reference date of 31 May 2021. The disclosure requirements clarified by these guidelines will apply from the date of publication until and including the last disclosure reference date prior to the disclosure reference date of 28 June 2021.

On 17 September 2020 the European Central Bank (ECB) announced that euro area banks under its direct supervision may exclude certain central bank exposures from the leverage ratio. The move is aimed at easing the implementation of monetary policy. Banks may benefit from this measure until 27 June 2021.

On 14 October 2020, the European Banking Authority (EBA) published its final draft regulatory technical standards (RTS) specifying the prudential treatment of software assets according to Art. 36(4) of the Capital Requirements Regulation (CRR), based on a prudential amortisation of software assets. EBA has concluded that the prudential amortization approach would best fit its purpose and objectives. This method implies that the positive difference between prudential and accounting accumulated depreciation shall be fully deducted from CET1, while the residual portion of the carrying amount shall be risk-weighted. If the useful life of software estimated for accounting purposes is shorter than the prudential amortization period, the former shall be used also for prudential purposes. Additionally, the prudential amortization period has been set at maximum 3 years, starting from the date on which the software asset is available for use. The prudential amortizations and deductions shall be made separately for each software asset. All the investments made for maintaining, enhancing or upgrading the existing software assets shall be treated as separate assets, considering that those investments are recognized as an intangible asset on the balance sheet. In line with the recent CRR 'quick fix', the date of entry into force of the RTS has been moved forward to the day following its publication in the Official Journal of the EU, i.e. 23 December 2020.

Furthermore the Basel Committee's oversight body, the Group of Central Bank Governors and Heads of Supervision (GHOS), has endorsed a set of measures to provide additional operational capacity for banks and supervisors to respond to the immediate financial stability priorities resulting from the impact of the coronavirus disease (COVID-19) on the global banking system:

- The implementation date of the Basel III standards finalised in December 2017 has been deferred by one year to 1 January 2023. The accompanying transitional arrangements for the output floor has also been extended by one year to 1 January 2028;
- The implementation date of the revised market risk framework finalised in January 2019 has been deferred by one year to 1 January 2023;
- The implementation date of the revised Pillar 3 disclosure requirements finalised in December 2018 has been deferred by one year to 1 January 2023.

Single Supervisory Mechanism (SSM)

Pursuant to the proposal of the EU Commission dated 12 September 2012 as regards a Single Supervisory Mechanism (SSM), Council Regulation No 1024/2013 of 15 October 2013 was issued, which conferred specific tasks on the European Central Bank (ECB) concerning policies relating to the prudential supervision of credit institutions. Furthermore, Regulation No 1022/2013 of the European Parliament and of the Council of 22 October 2013 was also issued, amending

Regulation No 1093/2010 establishing the EBA as regards the conferral of specific tasks on the ECB pursuant to Council Regulation No 1024/2013.

The Single Supervisory Mechanism (SSM) refers to the system of banking supervision in Europe. It comprises the ECB and the national supervisory authorities of the participating members. The main aims of the SSM are to ensure the safety and soundness of the European banking system, increase financial integration and stability and ensure consistent supervision.

As of November 2014, the ECB directly supervises the largest banks, while the national supervisors continue to monitor the remaining banks. The main task of the ECB and the national supervisors, working closely together within an integrated system, is to check that banks comply with the EU banking rules and tackle problems early on.

The SSM is one of the two pillars of the EU banking union, along with the Single Resolution Mechanism.

Single Rulebook

The Single Rulebook is the foundation of the banking union. The term Single Rulebook was coined in 2009 by the European Council in order to provide a single set of harmonised prudential rules which institutions throughout the EU must comply with. These rules, among other things, lay down capital requirements for banks, ensure better protection for depositors and regulate the prevention and management of bank failures.

Supervisory Review and Evaluation Process (SREP)

Based on Council Regulation 1024/2013, the ECB conducts annually a Supervisory Review and Evaluation Process (SREP), in order to define the prudential requirements of the institutions under its supervision, by defining a total SREP capital requirement.
The key purpose of 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.
The common SREP framework introduced is built around:

- business model analysis;
- assessment of internal governance and institution-wide control arrangements;
- assessment of risks to capital and adequacy of capital to cover these risks; and
- assessment of risks to liquidity and adequacy of liquidity resources to cover these risks.

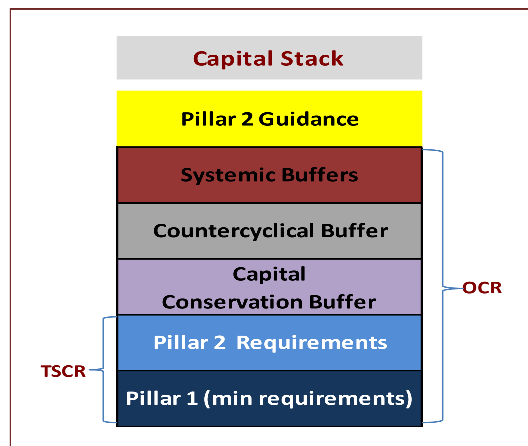
The minimum capital adequacy requirements are determined by the ECB following the assessment of the institution's risk profile (through SREP). For 2020 and for 2021, the SREP requirements consist of:

- The minimum required CET1 ratio and the minimum required Total capital adequacy ratio (Total SREP Capital Requirement or TSCR) that the Bank must meet at all times;
- The Overall Capital Requirement (OCR), which include, in addition to the TSCR, the combined buffer requirement, and which in case they are breached, can lead to the trigger of the Maximum Distributable Amount (MDA) restrictions;
- The Pillar 2 Guidance (P2G), which is an additional capital buffer recommended by the ECB to be kept over and above the Overall Capital Requirement.

Pillar 2 Requirement (P2R)

The Pillar 2 Requirement (P2R) is a capital requirement which applies in addition to and covers risks which are underestimated or not covered by the minimum capital requirements (Pillar 1). The P2R is binding and its breach can

have direct legal consequences for an institution. The P2R is determined via the Supervisory Review and Evaluation Process (SREP). Unlike the P2R, the P2G is not legally binding.



Based on the completion of the SREP decision for the year 2020, the ECB notified that both the Group and the Bank shall meet, on a consolidated and individual basis respectively, a total SREP capital requirement (TSCR) of 11%, which includes a Pillar 2 Requirement (P2R) of 3%. This requirement must be maintained at all times in accordance with Article 16(2)(a) of Regulation (EU) No 1024/2013.

Part of the P2R must be held in the form of CET1 capital (1.69%), while AT1 and Tier 2 capital, where available, may be used to cover the remaining part.

Stress Tests

On 12 March 2020, the EBA and the ECB decided to postpone the stress test exercises to 2021 to mitigate the impact of COVID-19 on the EU banking sector and thus allow banks to focus on and ensure continuity of their core operations, including support for their customers.

On 25 September, the EBA launched its 7th annual EU-wide transparency exercise, which seeks to provide market participants with updated information on the financial conditions of European banks based on data as of March and June 2020. The results of this exercise were published on 11 December 2020.

In January 2021, the EBA launched the 2021 EU-wide stress test exercise which will provide valuable input for assessing the resilience of the European banking sector, notably its ability to absorb shocks under adverse macroeconomic conditions.

This exercise is coordinated by the EBA in cooperation with the ECB and national authorities, and is conducted according to the EBA's methodology, which was published in November 2020. It is carried out on the basis of year-end 2020 figures and assesses the resilience of EU banks under a common macroeconomic baseline scenario and a common adverse scenario, covering the period of 2021-2023. The baseline scenario for EU countries is based on the projections from the national central banks of December 2020, while the adverse scenario assumes the materialisation of the main financial stability risks that have been identified by the European Systemic Risk Board (ESRB) and which the EU banking sector is exposed to. The adverse scenario also reflects ongoing concerns about the possible evolution of the Covid-19 pandemic coupled with a potential strong drop in confidence and is designed to ensure an adequate level of severity across all EU countries.

In parallel, the ECB also conducts its own stress test for the banks it directly supervises but that are not included in the EBA-led stress test sample. This exercise is consistent with the EBA's methodology and apply the same scenarios, while also including proportionality elements as suggested by the overall smaller size and lower complexity of these banks. Eurobank Holdings Group participates in the ECB-led stress test.

The results of both stress tests will be used to assess each bank's Pillar 2 capital recommendation ("Guidance") in the context of the Supervisory Review and Evaluation Process (SREP). The stress test process is currently in progress and the results for the EBA stress test are expected to be published by the end of July 2021.

Regulatory initiatives on Internal Models

SSM initiatives - Targeted Review of Internal Models

In the 4th quarter of 2019, ECB initiated the review of models (IMI – Internal Model Investigations) for the new production of Retail Lending in line with the ECB Guidance, following an application submitted by the Bank. The models for the new production of Retail Lending have been approved by ECB in Q1 2021.

EBA initiatives – Definition of default and other Guidelines

EBA recently issued a number of Guidelines and Regulations, to allow comparability and harmonization of risk estimates and RWAs as well as introducing a level playing field. These include among others:

- The implementation of the new Definition of Default including consistent materiality thresholds for credit obligations past due;
- Guidelines on the estimation of risk parameters under the IRB Approach.

In early September 2020, ECB initiated an Internal Model Investigation (IMI) of all IRB models as calibrated to the new Definition of Default (DoD). The calibrated models are expected to be implemented for capital calculation purposes in Q2 2021 following ECB's approval. The Bank is applying the new DoD for reporting purposes since January 1, 2021.

Recovery and Resolution of Credit Institutions

On 15 May 2014 the European Parliament and the Council of the European Union adopted the Directive 2014/59 EU establishing a framework for the recovery and resolution of credit institutions and investment firms (the Bank Recovery and Resolution Directive (BRRD) which entered into force on 2 July 2014. The European Council has recognised that in the Banking Union, bank supervision and resolution need to be exercised uniformly, thus making obvious the need for the establishment of the Single Resolution Mechanism (SRM) and a Single Resolution Fund, (SRF) and in this context, the European Parliament and Council adopted Regulation No 806/2014 (the "SRM Regulation").

The BRRD, which was transposed into Greek law by virtue of Law 4335/2015, relies on a network of national authorities and resolution funds to resolve banks. Pursuant to Law 4335/2015, with respect to Greek credit institutions, the BoG has been designated as the national resolution authority and the Resolution Branch of the Hellenic Deposit and Investment Guarantee Fund (HDIGF) as the national resolution fund.

The SRM Regulation builds on the rulebook on bank resolution set out in the BRRD and establishes the SRM, which complements the SSM and centralizes key competences and resources for managing the failure of any bank in the Euro zone and in other Member States participating in the Banking Union. The SRM Regulation also established the SRB, vested with centralised power for the application of the uniform resolution rules and procedures and the SRF, supporting the SRM. The main objective of the SRM is to ensure that potential future bank failures in the banking union are managed

efficiently, with minimal costs to taxpayers and the real economy. The SRB started its work as an independent EU agency on 1 January 2015 and is fully operational since January 2016.

In November 2016, the European Commission submitted legislative proposals to amend, among others, the BRRD and the SRMR. In April 2019, the European Parliament and the Council reached an agreement on these legislative proposals and in June 2019 the Official Journal of the European Union published:

- **Directive (EU) 2019/879** of the European Parliament and of the Council amending Directive 2014/59/EU on loss-absorbing and recapitalisation capacity of credit institutions and investment firms (known as “BRRD2”), and
- **Regulation (EU) 2019/877** of the European Parliament and of the Council amending Regulation (EU) No 806/2014 as regards loss-absorbing and recapitalisation capacity for credit institutions and investment firms (known as “SRMR2”).

The SRMR2 applies from 28 December 2020, while by that date Member States were obliged to transpose the BRRD2 into their national law.

The revised framework brought about changes, among others, in the arrangements relating to the determination and application of the Minimum Requirement for Own funds and Eligible Liabilities (MREL). In that context, the key changes pertain to:

- the allocation of banks into different categories with different requirements to apply to each of these categories;
- the introduction of a Pillar 1 MREL applicable to large and systemically important institutions;
- the establishment of the subordination requirement based on which credit institutions must cover part of the MREL with capital instruments and subordinated MREL-eligible liabilities;
- the introduction of the internal MREL for material subsidiaries of credit institutions;
- the establishment of specific criteria for the determination of the transitional period during which credit institutions must meet the MREL, and
- the introduction of specific measures that resolution authorities and/or supervisory authorities, where relevant, may take in response to the breach of the MREL.

1.3 Implementation of Capital Adequacy framework

1.3.1 Credit risk

Eurobank Group (the "Bank" or the "Group") first applied the Basel II framework under the Standardised approach in January 2007 and included the respective risk asset ratio figures in its published financial statements. Until that date the Group had been applying the Basel I rules.

In June 2008, the Group received the approval of BoG to use the Internal Ratings Based (IRB) approach to calculate the capital requirement for credit risk. Therefore, with effect from 1 January 2008 the Group applies:

- The Foundation IRB approach to calculate risk weighted assets for the corporate loans' portfolio of Eurobank Ergasias S.A. in Greece;
- The Advanced IRB for the majority of the retail loans' portfolio of the Bank, i.e. mortgages, small business lending, credit cards and revolving credits in consumer lending;
- From September 2009 the Foundation IRB approach was applied for the corporate loans' portfolio of Eurobank Ergasias Leasing S.A. in Greece;
- From March 2010 the Advanced IRB approach was applied for the Bank's portfolio of personal and car loans.

The implementation of IRB covers 75.5% of the Group's lending portfolio excluding portfolio segments which are immaterial in terms of size and risk profile as well as, permanent exemptions.

From January 1 2018, the equity exposures of the Group, according to article 155 of Regulation (EU) No 575/2013 (Risk weighted exposure amounts for equity exposures), are subject to the IRB treatment.

There is a permanent exemption from the IRB approach, up to 10% of Risk Weighted Assets, for which the Standardised approach is applied. In addition to the exemption of up to 10% of Risk Weighted Assets, permanent exemption has been granted for the following exposure classes as prescribed in the CRD:

- exposures to/or guaranteed by central governments and central banks;
- exposures to/or guaranteed by credit and financial institutions; and
- exposures to administrative bodies and non-commercial undertakings.

The Standardised approach is applied for these exposures.

1.3.2 Market risk

The Bank uses its own internal Value at Risk (VaR) model to calculate capital requirements for market risk in its trading book, for the Bank's activities in Greece. The Bank received the official validation of its model for market risk by the BoG in July 2005. The model is subject to periodic review by the regulator.

In 2011, the Bank updated its models and systems in order to fully comply with the BoG Governor's Act 2646/2011 for the trading book capital. The Bank calculates the capital for stressed VaR and IRC (incremental risk capital charge) since 31.12.2011.

For the measurement of market risk exposure and the calculation of capital requirements for the Bank's subsidiaries in Greece and in International operations, the Standardised approach is applied.

Furthermore, the Bank calculates and monitors the market risk of the banking book for its operations in Greece on a daily basis using the internal VaR model. For its operations abroad, Eurobank applies sensitivity analysis, whereas the VaR methodology is applied on a monthly basis.

1.3.3 Operational risk

Capitalizing on the provisions of Regulation (EU) No 575/2013, the Group applies the Standardised Approach to calculate the Pillar 1 regulatory capital requirements for operational risk for its consolidated operations.

1.4 Scope of Pillar 3

The purpose of Pillar 3 report is to provide updated information the Group's risk management practices, risk assessment processes and regulatory capital adequacy ratios.

Pillar 3 disclosures consist of both qualitative and quantitative information and are provided on a consolidated basis. They have been prepared in accordance with Part 8 of the Capital Requirements Regulation within CRD IV (Regulation 2013/575/EU) and according to the regulatory consolidation framework, which is described in the following section.

In December 2016 EBA published EBA/GL/2016/11 guidelines on revised Pillar 3 disclosures requirements to improve the consistency and comparability of institutions' regulatory disclosures. These guidelines harmonised the frequency of disclosures and updated the list of requirements to be considered for more frequent disclosures.

According to the above guidelines, for templates that require the disclosure for current and previous reporting periods, the previous reporting period is always referred to as the last data disclosed according to the frequency of the template. When the disclosure is being reported for the first time, the data of the previous period is not required.

In December 2018 EBA published EBA/GL/2018/10 guidelines, which include enhanced disclosure formats for credit institutions for disclosures related to non-performing exposures, forborne exposures and foreclosed assets. Some templates are applicable to significant credit institutions that have a gross NPL ratio of 5% or above, as is the case for the Group.

In June 2019 the European Parliament (EP) and the Council published the Regulation (EU) No 876/2019 or CRR2 amending the CRR, regarding among others the reporting and disclosure framework. The CRR 2 rules follow a phased implementation with significant elements entering into force in 2021.

In response to the COVID-19 pandemic, EBA published EBA/GL/2020/07 guidelines, which introduce additional requirements in relation to the disclosure on exposures subject to the EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis and on newly originated exposures subject to public guarantee schemes. The disclosure requirements apply semi-annually.

In addition to the CRR 'quick fix', EBA issued EBA/GL/2020/12 guidelines, which amend the EBA/GL/2018/01 on uniform disclosures under Article 473a of Regulation (EU) No 575/2013 (CRR) as regards the transitional period for mitigating the impact of the introduction of IFRS 9 on own funds, to provide clarity to institutions and users of information on the implementation of part of the disclosure requirements included in the CRR 'quick fix' and how institutions should disclose the information required.

In June 2020, EBA published new Implementing Technical Standards (ITS) on public disclosures by institutions and revised final draft ITS on supervisory reporting that implements changes introduced in the revised Capital Requirements Regulation (CRR2) and the Prudential Backstop Regulation. The two ITS aim to promote market discipline through enhanced and comparable public disclosures for stakeholders and to keep the reporting requirements in line with the evolving needs for Supervisory Authorities' risk assessments.

1.4.1 Location, timing and frequency of disclosures

Pillar 3 disclosures are provided on a quarterly basis in electronic format, after taking into consideration the relevant recommendation of EBA Guidelines 2016/11, which include the list of requirements to be considered for more frequent, than annual basis, disclosures.

Pillar 3 disclosures are provided with reference date (corresponding period) the close of the previous quarter and in conjunction with the date of publication of the financial statements. Equivalent disclosures made by the Group under accounting, listing or other requirements are deemed to constitute compliance with the requirements of the aforementioned Regulation (EU) No 575/2013 (Part Eight) taking into consideration any existing relevant implementing Regulations as well as the EBA guidelines.

Pillar 3 disclosures are a standalone document that provides a readily accessible source of prudential information for users and is available on a designated location on the Company's website (https://www.eurobankholdings.gr/en/investor-relations/financial-results) in chronological order and cover both quantitative and qualitative information.

Quantitative information, which is included in the Group's Consolidated Financial Statements, is also provided at the above location. In this way, the Company secures easy access of the market participants to continuous and complete information without cross-reference to other locations or media of communication.

Regarding the timing of disclosures, CRR clarifies that disclosures shall be published on the same date as the date on which the institution publishes its financial reports or as soon as possible thereafter. The Group's Pillar 3 disclosures will be published the latest either within one month from the publication of the financial statements or within the deadline of relevant Financial statements publication, as defined in Law 3556/2007.

The information contained in the Pillar 3 Disclosures has been verified by the Audit Committee and was approved by the Board of Directors on 12 April 2021.

1.5 Regulatory versus accounting consolidation

1.5.1 Accounting consolidation

The accounting consolidation of the Group is based on the International Financial Reporting Standards (IFRS) and more specifically IFRS 10 Consolidated Financial Statements, IAS 28 Investments in Associates and Joint Ventures and IFRS 11 Joint Arrangements.

Subsidiaries are all entities controlled by the Group. The Group controls an entity when it is exposed, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The Group consolidates an entity only when all the above three elements of control are present.

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

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

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

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

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

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

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

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

Subsidiaries are fully consolidated from the date on which control is transferred to the Group and are no longer consolidated from the date that control ceases.

Investments in joint ventures (the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control and, under which, the parties have rights to the net assets of the arrangement) and investments in associates (investments in which the Group has a significant influence, but which it does not control,) are also part of the accounting consolidation scope, but are accounted for using the equity method.

1.5.2 Regulatory consolidation

There is no difference between regulatory and accounting consolidation.

The following table provides information regarding the consolidation method applied for each entity within the accounting and the regulatory scopes of consolidation.

Table 1: EU LI3 – Outline of the differences in the scopes of consolidation

Name of the entity	Method of accounting consolidation	Method of regulatory consolidation	Line of business
Eurobank S.A.	Full consolidation	Full consolidation	Banking
Be Business Exchanges S.A. of Business Exchanges Networks and Accounting and Tax Services	Full consolidation	Full consolidation	Business-to-business e-commerce, accounting, tax and sundry services
Eurobank Asset Management Mutual Fund Mngt Company Single Member S.A.[(2)]	Full consolidation	Full consolidation	Mutual fund and asset management
Eurobank Equities Investment Firm Single Member S.A.[(2)]	Full consolidation	Full consolidation	Capital markets and advisory services
Eurobank Ergasias Leasing Single Member S.A.[(2)]	Full consolidation	Full consolidation	Leasing
Eurobank Factors Single Member S.A.	Full consolidation	Full consolidation	Factoring
Hellenic Post Credit S.A.	Full consolidation	Full consolidation	Credit card management and other services
Herald Greece Single Member Real Estate development and services S.A. 1	Full consolidation	Full consolidation	Real estate
Herald Greece Single Member Real Estate development and services S.A. 2	Full consolidation	Full consolidation	Real estate
Standard Single Member Real Estate S.A.[(2)]	Full consolidation	Full consolidation	Real estate
Cloud Hellas Single Member Ktimatiki S.A.[(2)]	Full consolidation	Full consolidation	Real estate
Piraeus Port Plaza 1 Single Member Development S.A.[(2)]	Full consolidation	Full consolidation	Real estate
(Under liquidation) Real Estate Management Single Member S.A.	Full consolidation	Full consolidation	Real estate services
(Under liquidation) Anchor Hellenic Investment Holding Single Member S.A.	Full consolidation	Full consolidation	Real estate
Vouliagmeni Residence Single Member S.A.	Full consolidation	Full consolidation	Real estate
Athinaiki Estate Investments Single Member S.A.	Full consolidation	Full consolidation	Real estate
Piraeus Port Plaza 2 Development S.A.	Full consolidation	Full consolidation	Real estate
Piraeus Port Plaza 3 Development S.A.	Full consolidation	Full consolidation	Real estate
Tenberco Properties Development and Exploitation Single Member S.A.	Full consolidation	Full consolidation	Real estate
Eurobank Bulgaria A.D.	Full consolidation	Full consolidation	Banking
IMO 03 E.A.D.	Full consolidation	Full consolidation	Real estate services
IMO Property Investments Sofia E.A.D.	Full consolidation	Full consolidation	Real estate services
ERB Hellas (Cayman Islands) Ltd	Full consolidation	Full consolidation	Special purpose financing vehicle
Berberis Investments Ltd	Full consolidation	Full consolidation	Holding company
Eurobank Cyprus Ltd	Full consolidation	Full consolidation	Banking
ERB New Europe Funding III Ltd	Full consolidation	Full consolidation	Finance company
Foramonio Ltd	Full consolidation	Full consolidation	Real estate
NEU 03 Property Holdings Ltd	Full consolidation	Full consolidation	Holding company
NEU Property Holdings Ltd	Full consolidation	Full consolidation	Holding company
Lenevino Holdings Ltd	Full consolidation	Full consolidation	Real estate
Rano Investments Ltd	Full consolidation	Full consolidation	Real estate
Neviko Ventures Ltd	Full consolidation	Full consolidation	Real estate
Staynia Holdings Ltd	Full consolidation	Full consolidation	Holding company
Zivar Investments Ltd	Full consolidation	Full consolidation	Real estate
Amvanero Ltd	Full consolidation	Full consolidation	Real estate
Ragisena Ltd	Full consolidation	Full consolidation	Real estate
Revasono Holdings Ltd	Full consolidation	Full consolidation	Real estate
Volki Investments Ltd	Full consolidation	Full consolidation	Real estate
Adariano Investments Ltd	Full consolidation	Full consolidation	Real estate
Elerovio Holdings Ltd	Full consolidation	Full consolidation	Real estate
Sagiol Ltd	Full consolidation	Full consolidation	Holding company
Macoliq Holdings Ltd	Full consolidation	Full consolidation	Holding company
Eurobank Private Bank Luxembourg S.A.	Full consolidation	Full consolidation	Banking
Eurobank Fund Management Company (Luxembourg) S.A.	Full consolidation	Full consolidation	Fund management

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Name of the entity	Method of accounting consolidation	Method of regulatory consolidation	Line of business
Eurobank Holding (Luxembourg) S.A.	Full consolidation	Full consolidation	Holding company
ERB Lux Immo S.A.	Full consolidation	Full consolidation	Real estate
Grivalia New Europe S.A.[1]	Full consolidation	Full consolidation	Real estate
ERB New Europe Funding B.V.	Full consolidation	Full consolidation	Finance company
ERB New Europe Funding II B.V.	Full consolidation	Full consolidation	Finance company
ERB New Europe Holding B.V.	Full consolidation	Full consolidation	Holding company
ERB IT Shared Services S.A.	Full consolidation	Full consolidation	Informatics data processing
IMO Property Investments Bucuresti S.A.	Full consolidation	Full consolidation	Real estate services
IMO-II Property Investments S.A.	Full consolidation	Full consolidation	Real estate services
Eliade Tower S.A.	Full consolidation	Full consolidation	Real estate
Retail Development S.A.	Full consolidation	Full consolidation	Real estate
Seferco Development S.A.	Full consolidation	Full consolidation	Real estate
Eurobank A.D. Beograd	Full consolidation	Full consolidation	Banking
ERB Leasing A.D. Beograd-In Liquidation	Full consolidation	Full consolidation	Leasing
IMO Property Investments A.D. Beograd	Full consolidation	Full consolidation	Real estate services
Reco Real Property A.D. Beograd	Full consolidation	Full consolidation	Real estate
ERB Istanbul Holding A.S.	Full consolidation	Full consolidation	Holding company
ERB Hellas Plc	Full consolidation	Full consolidation	Special purpose financing vehicle
Karta II Plc	Full consolidation	Full consolidation	Special purpose financing vehicle
Themeleion II Mortgage Finance Plc[1]	Full consolidation	Full consolidation	Special purpose financing vehicle
Themeleion III Mortgage Finance Plc[1]	Full consolidation	Full consolidation	Special purpose financing vehicle
Themeleion IV Mortgage Finance Plc[1]	Full consolidation	Full consolidation	Special purpose financing vehicle
Themeleion Mortgage Finance Plc[1]	Full consolidation	Full consolidation	Special purpose financing vehicle
Maximus Hellas Designated Activity Company	Full consolidation	Full consolidation	Special purpose financing vehicle
Astarti Designated Activity Company	Full consolidation	Full consolidation	Special purpose financing vehicle
ERB Recovery Designated Activity Company	Full consolidation	Full consolidation	Special purpose financing vehicle
Femion Ltd	Equity consolidation	Equity consolidation	Special purpose investment vehicle
(Under liquidation) Tefin S.A.	Equity consolidation	Equity consolidation	Dealership of vehicles and machinery
Sinda Enterprises Company Ltd	Equity consolidation	Equity consolidation	Special purpose investment vehicle
Singidunum - Buildings d.o.o. Beograd	Equity consolidation	Equity consolidation	Development of building projects
Alpha Investment Property Kefalariou S.A.	Equity consolidation	Equity consolidation	Real estate
Global Finance S.A.[3]	Equity consolidation	Equity consolidation	Investment financing
Rosequeens Properties Ltd[4]	Equity consolidation	Equity consolidation	Special purpose investment vehicle
Famar S.A.[1]	Equity consolidation	Equity consolidation	Holding company
Odyssey GP S.a.r.l.	Equity consolidation	Equity consolidation	Special purpose investment vehicle
Eurolife FFH Insurance Group Holdings S.A.[3]	Equity consolidation	Equity consolidation	Holding company
Alpha Investment Property Commercial Stores S.A.	Equity consolidation	Equity consolidation	Real estate
Peirga Kythnou P.C.	Equity consolidation	Equity consolidation	Real estate
Value Touristiki S.A.	Equity consolidation	Equity consolidation	Real estate
Grivalia Hospitality S.A.[4]	Equity consolidation	Equity consolidation	Real estate
Information Systems Impact S.A.	Equity consolidation	Equity consolidation	Information systems services
doValue Greece Loans and Credits Claim Management S.A.	Equity consolidation	Equity consolidation	Loans and Credits Claim Management
Perigenis Business Properties S.A.	Equity consolidation	Equity consolidation	Real estate

[1] Entity under liquidation at 31 December 2020.

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

[3] 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 Group's associates.

[4] Rosequeens Properties Ltd (including its subsidiary Rosequeens Properties SRL) and Grivalia Hospitality group (Grivalia Hospitality S.A. and its subsidiaries) are considered as Group's joint venture.

1.6 Impediments to the prompt transfer of capital

Subordinated loans given by Eurobank S.A. to its subsidiaries, financial institutions operating outside Greece, are subject to local regulations and subsequently restrictions set by local laws and supervisory authorities. The most common of all restrictions is minimum duration (5 to 7 years in most cases) with no possibility of prepayment without prior permission by the respective supervisory authority.

1.7 Compliance with Basel III Pillar 3 disclosures

The Group has issued an internal approved by the Board of Directors "Consolidated Pillar 3 Disclosures Policy" in order to ensure consistent and continuous compliance with the Pillar 3 disclosures requirements, as these have been specified in the existing regulatory framework. Within this framework, the Group operates as follows:

- Pillar 3 disclosures are provided on a consolidated basis;
- The Group includes in its disclosures all information deemed necessary to provide users with a clear, complete and accurate view of the Group's structure, capital management, risk management system, unencumbered assets and remuneration policy and corporate governance principles. During this procedure the Bank also identifies information that is material, confidential and proprietary;
- The Group has opted to present the full set of Pillar 3 disclosures in a separate document "Consolidated Pillar 3 Report", which is published at least annually on the Bank's website, in conjunction with the date of publication of its financial statements. The Remuneration and Corporate Governance disclosures are published as separate documents;
- The Group re-examines the extent and type of information provided at each disclosure date and revises its policy as necessary;
- The Group assesses the need to publish some or all disclosures more frequently than annually, taking into consideration factors such as scale of operations, range of activities, presence in different countries, involvement in different financial sectors, participation in international financial markets and payment, settlement and clearing systems and paying particular attention to information on own funds, capital requirements, risk exposure and other items prone to rapid change; and
- The Audit Committee of the Group is responsible to review and assess the process for the preparation of the Pillar 3 report, while the Board of Directors (BoD) of the Bank is responsible to approve it.

The aforementioned responsibilities are equivalent to those in respect of the Bank's Consolidated Financial Statements.

1.8 Governance arrangements

Eurobank Holdings is headed by a Board of Directors (Board or BoD) which is collectively responsible for the long-term success of the Company. The Board exercises its responsibilities effectively and in accordance with the Greek legislation, international best practices and its contractual obligations under the Tripartite Relationship Framework Agreement (TRFA) signed between the Company, the Bank and the HFSF, while its role is to provide entrepreneurial leadership to the Company and its subsidiaries (Group) within a framework of prudent and effective controls which enables risk to be assessed and managed.

The Board is assisted in carrying out its duties by Board Committees. The Board delegates some of its responsibilities to the Board Committees, approves their composition and mandates and receives regular and ad hoc reports from them.

The Company has adopted the Board Nomination Policy which sets out the guidelines and formal process for the identification, selection and nomination of candidates for the Board and ensures that the appointments are made: (a) in accordance with legal and regulatory requirements; (b) with due regard to the expectations of the major shareholders,

(c) in line with the contractual obligations with the HFSF and (d) on the basis of individual merit and ability, following a best practice process.

In addition, the Company has adopted the Directors Diversity Policy which sets out the approach to diversity on the Board and it is in accordance with international best practices and the EU and Greek banking law provisions. According to this Policy, Nomination Committee's priority is to ensure that the Board continues to have strong leadership and the right mix of skills to deliver the business strategy. Within this context and in regard to the less represented gender in the Board, Nomination Committee's aim is that the percentage of the female gender representation in Board shall be at least 20% calculated on the total Board size, with a minimum of two (2) female members, also considering industry trends and best practices. As at 31 December 2020, the representation of the female gender in the Board stood at 23%, while the representation rate increased to 31% on 28 January 2021.

More information concerning the Corporate Governance Arrangements is also available in the Board of Director's Report, in the 2020 Annual Financial Report (https://www.eurobankholdings.gr/en/investor-relations/financial-results-pages/financial-year-2020)

2. Capital Management

The amount and quality of the capital held by the Group is subject to certain rules and guidelines. The composition of the Group's available regulatory capital under Pillar 1 is as follows:

2.1 Regulatory capital – definition

The Pillar 1 regulatory capital of the Group at consolidated level is calculated on the basis of IFRS figures and according to the rules set by Regulation (EU) No 575/2013.

According to the CRR, the available regulatory capital is classified under two main categories: Tier 1 and Tier 2 capital. Tier 1 consists of Common Equity (CET1) and Additional Tier 1 (AT1) capital.

CET1 capital is composed of ordinary shareholders' equity, and minority interest allowed in consolidated CET1, after the following adjustments:

Addition of:

- 70% of IFRS 9 impact of 2020 (refer to par. 2.1.1 and 2.6);
- 100% of IFRS 9 'quick fix' impact of 2020 increases in stage 1 and stage 2 provisions (refer to par. 2.1.1 and 2.6).

Deduction of:

- Fair value reserves related to gains or losses of cash flow hedges;
- Gains and losses on market valuation of liabilities designated as fair-value-through-profit-or-loss attributable to own credit risk;
- Goodwill and intangible assets adjusted based on the requirements for prudent valuation of software assets;
- Deferred tax assets that rely on future profitability excluding those arising from temporary differences (unused tax losses);
- Participating interests and subordinated loans (and other capital instruments qualifying as own funds) of more than 10% in not fully consolidated credit or other financial institutions, including insurance companies;
- Loan impairment allowances' shortage compared to IRB measurement of Expected Loss (EL) derived under Basel III as defined in para 4.7.4;
- Deferred tax assets arising from temporary differences, which exceed 10% threshold of CET1 capital before certain deductions;
- The sum of deferred tax asset arising from temporary differences and participating interests and subordinated loans to financial institutions of more than 10% that are less than 10% of CET 1 capital and in total exceed the 17.65% threshold of adjusted CET1 capital; and
- Value adjustments due to the requirements for prudent valuation for all fair valued financial instruments and commodities (AVA).

Tier 1 capital comprises CET1 capital plus AT1 capital including preferred securities subject to phase out.

In case deductions of Tier 1 capital exceed positive amounts of Tier 1 capital, then the difference is deducted from CET1 capital.

Tier 2 capital is composed of the following items:

- Long term subordinated liabilities that meet certain regulatory specified criteria;
- General credit risk provisions up to 1.25% of risk weighted assets calculated under standardised approach;

- Positive difference between the sum of loan impairment allowances over the IRB measurement of Expected Losses, up to 0.6% of risk weighted assets calculated under the IRB approach.

In case deductions of Tier 2 capital exceed positive amounts of Tier 2 capital, then the difference is deducted from Tier 1 capital.

2.2 Transition rules

Regarding IFRS 9 adoption from 1.1.2018 and according to Regulation (EU) 2017/2395 of the European Parliament and the Council, a five year transition period is introduced, which allows banks to add back to their CET 1 capital 95% of IFRS 9 impact in 2018 and 85%, 70%, 50% and 25% in the subsequent four years.

According to the CRR 'quick fix' relief package, the IFRS 9 transitional arrangements have been extended by two years and a new calculation has been introduced where 100% relief is applied in 2020 and 2021 for increases in stage 1 and stage 2 provisions from 1 January 2020. Accordingly, the relief applied for 2022 is 75%, for 2023 50% and for 2024 25%.

The Group has elected to apply the phase in approach for mitigating the impact of IFRS 9 transition on the regulatory capital.

In addition, the CRR 'quick fix' with the Article 468 introduces a temporary treatment that allows institutions to remove from the calculation of their CET1 items unrealised gains and losses measured at fair value through other comprehensive income during the period from 1 January 2020 to 31 of December 2022.

The Group is not applying the temporary treatment specified in Article 468 therefore the own funds, capital and leverage ratios reflect the full impact of unrealised gains and losses measured at fair value through other comprehensive income.

2.3 Key Metrics

The table below provides an overview of Group's prudential regulatory metrics as at 31 December 2020.

Table 2: Key Metrics

	31 December 2020	30 September 2020
Available own funds (amounts)	€ million	€ million
Common Equity Tier 1 (CET1) capital	**5,604**	5,248
Tier 1 capital	**5,604**	5,248
Total capital	**6,554**	6,198
Risk-weighted exposure amounts		
Total risk-weighted exposure amount	**40,237**	39,795
Capital ratios (as a percentage of risk-weighted exposure amount)		
Common Equity Tier 1 ratio (%)	**13.9%**	13.2%
Tier 1 ratio (%)	**13.9%**	13.2%
Total capital ratio (%)	**16.3%**	15.6%
Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount)		
Additional CET1 SREP requirements (%)	**1.69%**	1.69%
Additional AT1 SREP requirements (%)	**0.56%**	0.56%
Additional T2 SREP requirements (%)	**0.75%**	0.75%
Total SREP own funds requirements (%)	**11.00%**	11.00%
Combined buffer requirement (as a percentage of risk-weighted exposure amount)		
Capital conservation buffer (%)	**2.50%**	2.50%
Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)	**0.00%**	0.00%
Institution specific countercyclical capital buffer (%)	**0.05%**	0.05%
Systemic risk buffer (%)	**0.00%**	0.00%
Global Systemically Important Institution buffer (%)	**0.00%**	0.00%
Other Systemically Important Institution buffer	**0.50%**	0.50%
Combined buffer requirement (%)	**3.05%**	3.05%
Overall capital requirements (%)	**14.05%**	14.05%
Leverage ratio		
Leverage ratio total exposure measure	**63,634**	63,888
Leverage ratio	**8.81%**	8.21%
Liquidity Coverage Ratio		
Total high-quality liquid assets (HQLA) (Weighted value - average)	**7,233**	6,793
Cash outflows - Total weighted value	**7,397**	7,110
Cash inflows - Total weighted value	**1,238**	1,195
Total net cash outflows (adjusted value)	**6,160**	5,915
Liquidity coverage ratio (%)	**117.43%**	114.84%

2.4 Reconciliation of Balance Sheets - financial accounting to regulatory scope of consolidation

As noted in section "1.4 Regulatory versus accounting consolidation", there is no difference between regulatory and accounting consolidation. As a result, the table below presents in one column per period the Balance Sheet both as per published financial statements and regulatory consolidation broken down into different risk types. Certain assets and liabilities can be subject to multiple risk frameworks.

Table 3: EU LI1 - Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

		31 December 2020					
			Carrying values of items				
	Ref.	Balance sheet per published financial statements and per regulatory consolidation € million	Subject to the credit risk framework € million	Subject to the CCR framework € million	Subject to the securitisation framework € million	Subject to the market risk framework € million	Not subject to capital requirements or subject to deduction from capital € million
Assets							
Cash and Balances with central banks		6,637	6,637	-	-	-	-
Due from credit institutions		3,336	3,136	2,691	-	-	-
Securities held for trading		87	-	-	-	87	-
Derivative financial instruments		2,552	-	2,552	-	2,552	-
Loans and advances to customers		37,424	33,874	45	3,505	-	-
Investment securities		8,365	8,298	2,065	67	-	-
Investments in associate and joint ventures		276	276	-	-	-	-
Property and equipment		778	778	-	-	-	-
Investment property		1,459	1,459	-	-	-	-
Goodwill and other intangible assets	*a*	254	71	-	-	-	183
Deferred tax asset		4,526	4,366	-	-	-	160
of which deferred tax assets that rely on future profitability	*b*	2	-	-	-		2
of which deferred tax credit		3,690	3,690	-	-	-	-
of which deferred tax assets arising from temporary differences	*c*	834	676	-	-	-	158
Other assets		1,995	1,979	-	-	-	16
Assets of disposal group classified as held for sale		39	39	-	-	-	-
Total assets		**67,728**	**60,913**	**7,353**	**3,572**	**2,639**	**359**
Liabilities							
Due to central banks		7,999	-	7,999	-	-	-
Due to credit institutions		1,502	-	683	-	-	819
Derivative financial instruments		2,939	-	2,939	-	2,939	-
Due to customers		47,290	-	200	-	-	47,090
Debt securities in issue		1,556	-	-	-	-	1,556
Other liabilities		1,197	21	-	-	-	1,176
Liabilities of disposal group classified as held for sale		-	-	-	-	-	-
Total liabilities		**62,483**	**21**	**11,821**	**-**	**2,939**	**50,641**
of which tier 2 instruments	*e*	950	-	-	-	-	950
Equity		-	-	-	-	-	-
Ordinary share capital		815	-	-	-	-	815
Share premium		8,055	-	-	-	-	8,055
Reserves and retained earnings		(3,625)	-	-	-	-	(3,625)
of which cash flow hedge reserves	*d*	(49)	-	-	-	-	(49)
of which own credit risk		-	-	-	-	-	-
Preference shares		-	-	-	-	-	-
Total equity attributable to shareholders of the Bank		**5,245**	**-**	**-**	**-**	**-**	**5,245**
Preferred securities		-	-	-	-	-	-
Non controlling interests		-	-	-	-	-	-
Total equity	*f*	**5,245**	**-**	**-**	**-**	**-**	**5,245**
Total equity and liabilities		**67,728**	**21**	**11,821**	**-**	**2,939**	**55,886**

Capital Management

	31 December 2019					
		Carrying values of items				
	Balance sheet per published financial statements and per regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
	€ million	€ million	€ million	€ million	€ million	€ million
Assets						
Cash and Balances with central banks	4,679	4,629	50	-	-	-
Due from credit institutions	3,007	2,979	2,315	-	-	-
Financial instruments at fair value through profit or loss	110	-	-	-	110	-
Derivative financial instruments	2,262	-	2,262	-	2,262	-
Loans and advances to customers	37,365	36,224	79	1,062	-	-
Investment securities	7,951	7,869	5,612	82	-	-
Investments in associate and joint ventures	235	235	-	-	-	-
Property and equipment	746	746	-	-	-	-
Investment property	1,184	1,184	-	-	-	-
Intangible assets	378	-	-	-	-	378
Deferred tax asset	4,766	4,585	-	-	-	181
of which deferred tax assets that rely on future profitability excluding those arising from temporary differences	2	-	-	-		2
of which deferred tax credit	3,820	3,820	-	-	-	-
of which deferred tax assets arising from temporary differences	944	765	-	-	-	179
Other assets	2,003	1,990	-	-	-	13
Assets of disposal group classified as held for sale	75	75	-	-	-	-
Total assets	64,761	60,515	10,318	1,144	2,372	572
Liabilities						
Due to central banks	1,900	-	1,900	-	-	-
Due to credit institutions	5,022	-	4,267	-	-	755
Derivative financial instruments	2,726	-	2,726	-	2,726	-
Due to customers	44,841	-	200	-	-	44,641
Debt securities in issue	2,406	-	-	-	-	2,406
Other liabilities	1,191	-	-	-	-	1,191
Liabilities of disposal group classified as held for sale	8	-	-	-	-	8
Total liabilities	58,094	-	9,093	-	2,726	49,001
of which tier 2 instruments	950	-	-	-	-	950
Equity	-	-	-	-	-	-
Ordinary share capital	852	-	-	-	-	852
Share premium	8,054	-	-	-	-	8,054
Reserves and retained earnings	(2,241)	-	-	-	-	(2,241)
of which cash flow hedge reserves	(42)	-	-	-	-	(42)
of which own credit risk	-	-	-	-	-	-
Preference shares	-	-	-	-	-	-
Total equity attributable to shareholders of the Bank	6,665	-	-	-	-	6,665
Preferred securities	2	-	-	-	-	2
Non controlling interests	-	-	-	-	-	-
Total equity	6,667	-	-	-	-	6,667
Total equity and liabilities	64,761	-	9,093	-	2,726	55,668

[(1)] *The amounts shown in column "Balance sheet per published financial statements and per regulatory consolidation" do not equal to the sum of the amounts shown in the remaining columns, as some assets are subject to multiple risk frameworks.*

Capital Management

The table below provides a reconciliation of the consolidated regulatory balance sheet to the Exposure at Default (EAD), allocated to different risk frameworks.

Table 4: EU LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements

	31 December 2020				
		Items subject to			
	Total [3]	Credit risk framework	CCR framework	Securitisation framework	Market risk framework
	€ million	€ million	€ million	€ million	€ million
Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1) [1]	**67,369**	**60,913**	**7,353**	**3,572**	**2,639**
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1) [1]	11,842	21	11,821	-	2,939
Total net amount under the regulatory scope of consolidation	**55,527**	**60,892**	**(4,468)**	**3,572**	**(300)**
Off-balance-sheet amounts [2]	5,647	2,614	-	-	-
Differences in valuations	-	-	-	-	-
Differences due to different netting rules, other than those already included in row 2	11,847	26	11,821	-	-
Differences due to consideration of provisions	2,474	2,474	-	-	-
Differences due to prudential filters	263	263	-	-	-
Differences due to collateral	6,336	-	6,336	-	-
Corresponding amount of credit risk mitigation techniques (CRM)	-	-	-	-	-
Exposure amounts considered for regulatory purposes as at 31 December 2020	**82,094**	**66,269**	**13,689**	**3,572**	**(300)**

	31 December 2019				
		Items subject to			
	Total [3]	Credit risk framework	CCR framework	Securitisation framework	Market risk framework
	€ million	€ million	€ million	€ million	€ million
Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1) [1]	64,189	60,515	10,318	1,144	2,372
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1) [1]	9,093	-	9,093	-	2,726
Total net amount under the regulatory scope of consolidation	55,096	60,515	1,225	1,144	(354)
Off-balance-sheet amounts [2]	5,262	2,492	-	-	-
Differences in valuations	-	-	-	-	-
Differences due to different netting rules, other than those already included in row 2	9,174	81	9,093	-	-
Differences due to consideration of provisions	6,247	6,244	3	-	-
Differences due to prudential filters	-	-	-	-	-
Differences due to collateral	3,264	-	3,264	-	-
Corresponding amount of credit risk mitigation techniques (CRM)	-	-	-	-	-
Exposure amounts considered for regulatory purposes as at 31 December 2019	79,043	69,332	13,585	1,144	(354)

[1] *Excludes amounts subject to deduction from capital or not subject to regulatory capital requirements.*

[2] *Amounts shown in the "Total" column, relates to exposures pre-CCF and do not equal to the amount shown in "Credit risk framework" as this is post-CCF.*

[3] *The amounts shown in column "Total" do not equal to the sum of the amounts shown in the remaining columns, as some assets are subject to multiple risk frameworks.*

2.5 Regulatory capital

The Group has sought to maintain an actively managed capital base to cover risks inherent in the business. The adequacy of the Group's capital is monitored using, among other measures, the rules and ratios established by the Basel Committee on Banking Supervision and adopted by the European Union and the SSM in supervising the Bank.

The table below shows the composition of the Group's regulatory capital as at 31 December 2020 and 30 September 2020 which is calculated according to CRD IV.

In addition, in Appendix 1, a transitional own fund disclosure template can be found which presents the components of regulatory capital on transitional and end-point basis as at 31 December 2020 and 2019. The disclosure has been prepared using the format set out in Annex VI of the "Commission Implementing Regulation (EU) No 1423/2013 of 20 December 2013 laying down implementing technical standards with regard to disclosure of own funds requirements for institutions according to Regulation (EU) No 575/2013 of European Parliament and of the Council".

Table 5: EU CC2 - Reconciliation of regulatory own funds to balance sheet in the audited financial statements

	Ref.	31 December 2020 € million	30 September 2020 € million
Total equity	*f*	5,245	5,348
Regulatory adjustments			
Part of interim or year-end profit not eligible		-	-
Cash flow hedge reserves	*d*	49	50
Adjustments due to IFRS 9 transitional arrangements		849	778
Fixed assets' revaluation reserve		-	
Intangible assets	*a*	(183)	(395)
of which Goodwill		(1)	(161)
IRB shortfall of credit risk adjustments to expected losses		(170)	(91)
Deferred tax assets that rely on future profitability (unused tax	*b*	(2)	(1)
Deferred tax assets arising from temporary differences (amount above 10% threshold)	*c*	(158)	(380)
Prudent Valuation Adjustments		(10)	(10)
Other regulatory adjustments		(16)	(15)
Amount exceeding the 17.65% threshold		-	(36)
Common Equity Tier I capital		**5,604**	5,248
Regulatory adjustments		-	-
Total Tier I capital		**5,604**	5,248
Tier II capital - subordinated debt	*e*	950	950
Fixed assets' revaluation reserve		-	-
IRB Excess of impairment allowances over expected losses eligible		-	-
Total Regulatory Capital		**6,554**	6,198
Risk Weighted Assets		**40,237**	39,795
Ratios			
Common Equity Tier I		**13.9%**	13.2%
Tier I		**13.9%**	13.2%
Total Capital Adequacy Ratio		**16.3%**	15.6%

[1] *The Group's CET1 as at 31 December 2020, based on the full implementation of the Basel III rules in 2025 (fully loaded CET1), would be 12.0% (30 September 2020: 11.2%).*

As depicted in table above, CET1 ratio has increased during the 4th quarter 2020, mainly due to 4th Q results, the implementation of the CRR 'quick fix' regulatory measures i.e. IFRS 9 transition relief and the prudential treatment of software assets as well as the increase in Other Comprehensive income from improved GGBs market valuation.

Capital Management

The CET1 ratio is defined as CET1 capital divided by RWAs, the Tier 1 ratio is defined as Tier 1 capital divided by RWAs and Total Capital Adequacy ratio is defined as Total Regulatory Capital divided by RWAs.

As at 31 December 2020, pursuant to the Law 4172/2013, as in force, the Bank's eligible DTAs/deferred tax credits (DTCs) against the Greek State amounted to € 3.691 million (2019 € 3.821 million). The DTCs will be converted into directly enforceable claims (tax credit) against the Greek State provided that the Bank's after tax accounting result for the year is a loss. In particular, DTCs are accounted for on: (a) the losses from the Private Sector Involvement (PSI) and the Greek State Debt Buyback Program and (b) on the sum of (i) the unamortized part of the crystallized loan losses from write-offs and disposals, (ii) the accounting debt write-offs and (iii) the remaining accumulated provisions and other losses in general due to credit risk recorded up to 30 June 2015. For further details please refer to Consolidated Financial Statements, Note 13.

According to Regulation (EU) No. 575/2013, article 39, deferred tax assets that can be replaced with a tax credit, shall not be deducted from CET1, but instead be risk weighted by 100%.

2.6 IFRS 9 capital impact

Regarding IFRS 9 adoption from 1.1.2018 and according to Regulation (EU) 2017/2395 of the European Parliament and the Council, a five year transition period is introduced, which allows banks to add back to their CET 1 capital 95% of IFRS 9 impact in 2018 and 85%, 70%, 50% and 25% in the subsequent four years. The full impact is expected as of 1 January 2023.

According to the CRR 'quick fix' relief package, the IFRS 9 transitional arrangements have been extended by two years and a new calculation has been introduced where 100% relief is applied in 2020 and 2021 for increases in stage 1 and stage 2 provisions from 1 January 2020. Accordingly, the relief applied for 2022 is 75%, for 2023 50% and for 2024 25%.

The Group has elected to apply the phase in approach for mitigating the impact of IFRS 9 transition on the regulatory capital.

Table 6: EU IFRS-FL: Template on the comparison of Institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs.

Available capital	31 December 2020 € million	30 September 2020 € million	30 June 2020 € million	31 March 2020 [(1)] € million	31 December 2019 € million
Common Equity Tier 1 (CET1) capital	5,604	5,248	5,603	6,625	6,917
Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,778	4,443	4,613	5,858	5,998
Tier 1 capital	5,604	5,248	5,603	6,625	6,917
Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,778	4,443	4,613	5,858	5,998
Total capital	6,554	6,198	6,657	7,645	7,964
Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5,824	5,489	5,668	6,914	7,050
Risk weighted assets					
Total risk-weighted assets	40,237	39,795	42,208	42,953	41,407
Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	39,975	39,539	41,949	42,725	41,122
Capital ratios					
Common Equity Tier 1 (as a percentage of risk exposure amount)	13.9%	13.2%	13.3%	15.4%	16.7%
Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	12.0%	11.2%	11.0%	13.7%	14.6%
Tier 1 (as a percentage of risk exposure amount)	13.9%	13.2%	13.3%	15.4%	16.7%
Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	12.0%	11.2%	11.0%	13.7%	14.6%
Total capital (as a percentage of risk exposure amount)	16.3%	15.6%	15.8%	17.8%	19.2%
Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	14.6%	13.9%	13.5%	16.2%	17.1%
Leverage ratio					
Leverage ratio total exposure measure	63,634	63,888	68,691	70,516	68,665
Leverage ratio	8.81%	8.21%	8.16%	9.39%	10.07%
Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	7.49%	6.94%	6.71%	8.46%	8.94%

[(1)] *Including interim profits (1/1/2020-31/3/2020) € 57 million.*

2.7 Countercyclical buffer

The Countercyclical buffer (CCyB) will be applied when the authorities deem that lending growth is giving rise to an unacceptable accumulation of systemic risks. This buffer is specifically calculated for each bank or group and consists of the weighted average of percentages of countercyclical buffers applied in regions in which the bank's credit exposures are located.

The table below provides the geographical distribution of the Group's credit exposures relevant for the calculation of its countercyclical capital buffer and the amount of its institution specific countercyclical capital buffer.

Table 7: EU CCyB1 – Geographical distribution of credit exposures relevant for the calculation of countercyclical buffer

	31 December 2020										
	General credit exposures		Trading book exposure		Securitisation exposure	Own funds requirements					
Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer	Exposure value for SA € million	Exposure value for IRB € million	Sum of long and short position of trading book € million	Value of trading book exposure for internal models € million	Exposure value in the banking book € million	of which: General credit exposures € million	of which: trading exposures € million	of which: securitisation exposures € million	Total € million	Own funds requirement weights	Counter-cyclical capital buffer rate
Greece	8,194	26,563	4	-	8	1,756	-	1	1,757	0.75	0.00%
Romania	341	-	-	-	-	22	-	-	22	0.01	0.00%
Bulgaria	4,354	5	1	-	-	232	-	-	232	0.10	0.50%
United Kingdom	320	2	-	-	11	13	-	-	13	0.01	0.00%
Cyprus	1,214	7	-	-	-	80	-	-	80	0.03	0.00%
Luxemburg	75	92	-	-	-	5	-	-	5	0.00	0.25%
Other Countries	2,574	40	-	-	1,109	167	-	81	248	0.11	0.00%
Total	**17,072**	**26,709**	**5**	**-**	**1,128**	**2,275**	**-**	**82**	**2,357**	**1.00**	**0.05%**

	31 December 2019										
	General credit exposures		Trading book exposure		Securitisation exposure	Own funds requirements					
Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer	Exposure value for SA € million	Exposure value for IRB € million	Sum of long and short position of trading book € million	Value of trading book exposure for internal models € million	Exposure value in the banking book € million	of which: General credit exposures € million	of which: trading exposures € million	of which: securitisatio n exposures € million	Total € million	Own funds requirement weights	Counter-cyclical capital buffer rate
Greece	8,595	32,092	3	-	10	1,834	-	1	1,834	0.75	0.00%
Romania	416	-	-	-	-	27	-	-	27	0.01	0.00%
Bulgaria	4,124	5	-	-	-	237	-	-	237	0.10	0.50%
United Kingdom	172	2	-	-	15	11	-	0	12	0.00	1.00%
Cyprus	1,087	7	-	-	-	79	-	-	79	0.03	0.00%
Luxemburg	83	105	-	-	-	6	-	-	6	0.00	0.00%
Other Countries	2,139	37	-	-	1,120	159	-	78	237	0.10	0.33%
Total	16,616	32,248	3	-	1,145	2,353	-	79	2,432	1.00	0.09%

Table 8: EU CCyB2 – Amount of institution-specific countercyclical capital buffer

Amount of institution-specific countercyclical buffer	31 December 2020	31 December 2019
Total risk exposure amount (€ million)	40,237	41,407
Institution specific countercyclical buffer rate	0.05%	0.09%
Institution specific countercyclical buffer requirement (€ million)	20	36

2.8 Supervisory Review and Evaluation Process (SREP) capital requirements

According to the decision of the 2019 Supervisory Review and Evaluation Process (SREP) performed by the ECB, ,and the capital relief measures granted by the ECB in response to the Covid-19 outbreak starting from 18 March 2020, Eurobank Ergasias Services and Holdings S.A. (Eurobank Holdings) is required to meet on a consolidated basis a Common Equity Tier 1 ratio of at least 9.19% and a Total Capital Adequacy Ratio of at least 14.0% (Overall Capital Requirements including Capital Conservation Buffer and Other Systemically Important Institution buffer) plus the applicable Countercyclical Capital Buffer (0.05% for the last quarter of 2020 stemming from the exposures in Bulgaria and Luxemburg).

The table below presents the capital requirements of the Bank for 31 December 2020.

	31 December 2020	
	CET1 Capital Requirements	Total Capital Requirements
Minimum regulatory requirement	4.50%	8.00%
Pillar 2 Requirement (P2R)	1.69%	3.00%
Total SREP Capital Requirement (TSCR)	**6.19%**	**11.00%**
Combined Buffer Requirement (CBR)		
Capital conservation buffer (CCoB)	2.50%	2.50%
Countercyclical capital buffer (CCyB)	0.05%	0.05%
Other systemic institutions buffer (O-SII)	0.50%	0.50%
Overall Capital Requirement (OCR)	**9.24%**	**14.05%**

In response to the Covid-19 outbreak, on 12 March 2020, the ECB announced a number of measures to ensure that its directly supervised banks can continue to fulfil their role in funding the real economy. Specifically, banks have been allowed, among others, to operate temporarily below the level of capital defined by the Pillar 2 Guidance and without prejudice to the restrictions set out in CRD IV, the Combined Buffer Requirement (i.e. Capital Conservation Buffer (CCB), Countercyclical Capital Buffer, Other Systemically Important Institutions Buffer) until at least the end of 2022, as per the latest ECB's communication issued on 28 July 2020. Banks are also allowed to partially use capital instruments that do not qualify as CET1 capital (i.e. AT1 or Tier 2 instruments), to meet the Pillar 2 Requirement (P2R).

At consolidated level, the Pillar 2 Requirement is set at 3% for 2020 and part of that (1.69%) must be held in the form of CET1 capital while the Group may use AT1 and Tier 2 capital, where available, for the remaining part. The amount of additional own funds required on a consolidated basis to be met with CET1 capital is € 680 million.

As at 31 December 2020 Eurobank's transitional CET1 ratio and Total Capital ratio were 13.9% and 16.3% respectively, which exceeded the 2020 transitional minimum requirements of 9.24% and 14.05%.

According to the 2020 SREP decision, for 2021, the Bank is required to meet on a consolidated Basis a Common Equity Tier 1 ratio of at least 9.24% and a Total Capital Adequacy Ratio of at least 14.05% (Overall Capital Requirements including Capital Conservation Buffer of 2.5%, Other Systemically Important Institution Buffer of 0.5% and Countercyclical Buffer of 0.05% mainly stemming from the exposures in Bulgaria and Luxemburg).

2.9 Capital requirements under Pillar 1

The table below presents the Group's risk weighted assets (RWAs) and capital requirements as at 31 December 2020, 30 September 2020 and 31 December 2019. The minimum capital requirements under Pillar 1 are calculated as 8% of RWAs.

Table 10: EU OV1 – Overview of RWAs

	31 December 2020 RWAs € million	30 September 2020 RWAs € million	31 December 2019 RWAs € million	**31 December 2020 Minimum capital requirements € million**
Credit risk (excluding CCR)	**33,127**	**32,621**	33,805	**2,650**
Of which the standardised approach	17,342	16,844	17,046	1,387
Of which the foundation IRB (FIRB) approach	9,361	9,257	9,082	749
Of which the advanced IRB (AIRB) approach	5,964	6,062	7,185	477
Of which equity IRB under the simple risk-weighted approach or the IMA	460	458	492	37
Counterparty Credit Risk	**497**	**475**	615	**40**
Of which mark to market	193	188	140	15
Of which original exposure	-	-	-	-
Of which the standardised approach	232	222	395	19
Of which internal model method (IMM)	-	-	-	-
Of which risk exposure amount for contributions to the default fund of a CCP	-	-	-	-
Of which CVA	72	65	80	6
Settlement risk	-	-	-	-
Securitisation exposures in the banking book (after the cap)	**1,021**	**1,027**	984	**82**
Of which IRB approach	63	65	12	5
Of which IRB supervisory formula approach (SFA)	-	-	-	-
Of which internal assessment approach (IAA)	-	-	-	-
Of which standardised approach	958	962	972	77
Market risk	**812**	**922**	984	**65**
Of which the standardised approach	254	251	315	20
Of which IMA	558	671	669	45
Large exposures	-	-	-	-
Operational risk	**3,030**	**3,077**	3,077	**242**
Of which basic indicator approach	-	-	-	-
Of which standardised approach	3,030	3,077	3,077	242
Of which advanced measurement approach	-	-	-	-
Amounts below the thresholds for deduction (subject to 250% risk weight)	**1,750**	**1,673**	1,942	**140**
Floor adjustment	-	-	-	-
Total	**40,237**	**39,795**	41,407	**3,219**

[1] The increase of the RWAs compared to 30.09.2020 is mainly due to the prudential treatment of software assets according to CRR 'quick fix' relief measures, the higher RWAs from higher lending volumes in international operations and from Fixed and other assets.
[2] The decrease of RWAs compared to 31.12.2019 is mainly due to the derecognition of Cairo loans which is partly offset by the application of CRR 'quick fix' favourable SME discount factor.

The table below provides the Bank's significant investments in insurance holding companies which are not deducted from CET 1 because the total investment does not exceed the 10% of the aggregate amount of CET1 before certain deductions.

Table 11: INS1 – Non deducted participation in insurance undertakings

	31 December 2020	30 June 2020
	€ million	€ million
Holdings of own funds instruments of a financial sector entity where the institution has a significant investment not deducted from own funds (before risk-weighting)	148	143
Total RWAs	**370**	357

2.10 Internal Capital Adequacy Assessment Process (ICAAP)

ICAAP aims to identify and assess risks that are inherent in the Group's business model, determine their materiality and allocation at an entity and Group level, evaluate risk monitoring and risk mitigation processes and quantify the relevant internal capital charge where appropriate so as to ensure the ongoing capital adequacy of the Group versus its risk profile.

To accomplish these objectives, the ICAAP leverages upon and integrates the Group's well-established activities on risk, capital and performance management, including in particular planning and monitoring, while also continuously refining its approach to ensure high standards of capital assessment and management.

Oversight and ultimate responsibility for the ICAAP lies with the BoD, which has assumed a leading role in developing a risk conscious organization and maintaining the Group's risk management at high levels of sophistication. The BoD's vision and guidance are distilled in the Group's risk appetite framework, which describes the risk boundaries within which the Group is willing to operate. Prior to its approval, the BoD and the senior management discuss and challenge the ICAAP in an effective way.

Moreover, acting as an evaluation mechanism of the Group's entire risk management framework, an integral component of ICAAP is the identification, assessment and quantification of current and emerging risks in terms of their materiality at Group level, thus allowing the organization to focus its resources and management attention to those risks that could potentially threaten its business or capital standing and ensuring that all material risks are properly managed and monitored.

Material risks are evaluated qualitatively and quantitatively, as appropriate. The aggregation of the individual capital charges comprises the Group's total internal capital requirement, meaning the amount of capital the Group needs to hold for the purpose of absorbing unexpected losses deriving from its risk profile.

All categories of material risks are appropriately managed and the relevant frameworks are regularly evaluated in order to identify ways of strengthening the risk management structure, enhance existing policies, establish new mitigation techniques and improve the internal calculation of capital requirements. Risk and capital management responsibility, including compliance with regulatory requirements and corporate policies, lies with the Group's senior management.

The Group uses the regulatory capital requirements as a starting point for the internal determination of its capital requirements ("internal capital"), adjusting for additional capital where appropriate. Compared to regulatory capital requirements, "internal capital" takes into account a wider range of risks and utilizes more sophisticated calculation approaches. This approach allows the Group to leverage its advanced risk measurement infrastructure.

Regular scenario-based simulations and stress tests are also used in order to assess specific risks as well as the overall risk profile. Stress tests can be classified as follows:

- Risk specific stress tests, where particular risk factors, exposures or portfolios are stressed at a range of severities in order to assess individual risk impacts and threshold effects;
- Integrated stress tests across risks, which evaluate the resilience of the Group's capital position to adverse economic conditions, in case of a systemic deterioration of the business environment in a macroeconomic downturn;
- Reverse stress tests, which assess the resilience of the Group's capital position to specific adverse circumstances starting from the identification of a pre-defined outcome (e.g. points at which an institution business model becomes unviable, or at which the institution can be considered as failing or likely to fail in the meaning of Article 32 of Directive 2014/59/EU) and then exploring scenarios and circumstances that might cause this outcome to occur.

The Group also develops forecasts on capital consumption and availability and integrates them into the strategic planning process so as to optimize capital return and allocation, whilst maintaining adequate capital levels. The results of the stress tests are utilised during the capital planning process to ensure that the contingency plans in place are adequate if stressed conditions materialize and to produce a set of plausible action plans to mitigate the impact of the assumed stress scenario.

The Group maintains adequate pre-provision earnings in the medium term and robust risk management practices, which along with the capital actions already executed or underway, allow the Group to meet both regulatory and internal capital requirements. As a result, the Group will be in a position to support the risk profile of its balance sheet and its business operations going forward, even under further adverse conditions, should they materialize.

2.11 Internal Liquidity Adequacy Assessment Process (ILAAP)

ILAAP is the internal process for the identification, measurement, management and monitoring of liquidity as implemented by the institution according to Article 86 of Directive 2013/36/EU.

The Group's ILAAP covers the following areas:

- Liquidity and funding risk management framework: identification of the functions/units and management committees responsible for the policy making, management, control, monitoring and reporting of liquidity and funding risk;
- Description of the liquidity and funding risks: comprehensive description of the liquidity and funding risks that the Group faces taking into account the current macro-economic environment as long as country-specific and idiosyncratic factors;
- Liquidity risk monitoring process and stress testing: detailed description of the processes, tools and reports that the Group uses for the monitoring and the control of liquidity risk, with particular emphasis on the following: stress test analysis, liquidity buffer analysis, liquidity & funding indicators;
- Contingency funding plan and liquidity & funding strategy: description of the contingency funding plan and the liquidity and funding strategy;
- Information on strategy regarding liquidity buffers and collateral management;
- Information of cost benefit allocation mechanism;
- Information on intraday liquidity risk management.

3. Risk management overview

3.1 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 (and evolve) in a manner that enables the Group to identify and deal with the risks associated with those changes. The Bank's structure, internal procedures and existing control mechanisms ensure both the independence principle and the exercise of sufficient supervision.

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 regulatory requirements, as set out in the EU and Greek legislative acts, the legal acts of the ECB and the European Commission, the guidelines of the 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 initiatives for the improvement of the risk management framework in place.

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 adequate 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. Moreover, BRC is conferred with certain approval authorities for credit proposals, debt forgiveness and write-offs, and the Bank's resolution planning initiatives to enhance its resolvability. Additionally, BRC is responsible for approving the Significant Risk Transfer Policy and overseeing its implementation.

The BRC updates the Board of Directors on risk management issues and recommends the future risk management strategy. It consists of four independent non-executive directors and two non-executive directors, including the representative of the HFSF, and meets on a monthly basis and reports to the BoD on a quarterly basis and on ad hoc instances. During 2020 the BRC met seventeen (17) times.

The Management Risk Committee (MRC) is a management committee, established by the CEO in 2016. It 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 including the approval of the Group's quarterly credit impairment cost results. 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

The Group's Risk Management General Division, which is headed by the Group Chief Risk Officer (GCRO), is independent from the business units and has full responsibility for the monitoring, measurement and the management of credit, market, operational and liquidity risks of the Group. It comprises of the Group Credit General Division, the Group Credit Control Sector, the Group Credit Risk Capital Adequacy Control Sector, the Group Market & Counterparty Risk Sector, the Group Operational Risk Sector, the Group Model Validation & Governance Sector, the Group Risk Management Strategy Planning and Operations Division, the Supervisory Relations & Resolution Planning Sector (with dual reporting also to Group CFO) and Risk Analysis Division.

3.2 Risk appetite framework

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 main objectives that determine the risk appetite refer to the compliance with regulatory requirements, the safeguard of the Group's ability to smoothly continue its activities, and the achievement of a balance of strong capital adequacy with high returns on equity.

Risk appetite is clearly communicated throughout the Group, determines risk culture and forms the basis on which risk policies and risk limits are established at Group, business and regional level.

The Group's Risk Appetite Framework comprises the following components:

- Risk Bearing Capacity – this reflects the maximum amount of risk the Group can assume given any regulatory, operating, capital base or liquidity constraints and other obligations;
- Risk Appetite – this reflects the maximum level of risk that the Group is willing to assume (seek, accept or tolerate) in pursuit of its strategic and business objectives. Risk Tolerance reflects the degree of management's acceptance of current risk exposure levels, applicable to certain non-financial risks (e.g. operational risk) which are not actively taken but are tolerated;
- Risk Limits – these reflect limiting values placed on specific measures designed to prevent risk exposures from exceeding predefined risk appetite thresholds.

The risk appetite is structured as a series of qualitative and quantitative statements that cover the following broad risk categories:

- Capital adequacy and leverage
- Credit risk and asset quality
- Market risk
- Interest Rate risk in the Banking Book (IRRBB)
- Liquidity risk
- Operational risk
- Earnings risk
- Country risk
- Business risk
- Strategic risk
- Reputational risk

The Risk Appetite Framework is appropriately documented and revisited at least on an annual basis. The BRC reviews and approves the risk appetite statements and thresholds at least on an annual basis to ensure compliance with the regulatory requirements and the Bank's risk appetite in the prevailing business environment. Setting risk appetite aims to ensure that risk is proactively managed to the level desired and approved by the BRC. Senior management has the responsibility to monitor and manage risk exposures in order to remain within risk appetite levels and to ensure an appropriate level of risk is assumed to achieve business objectives. In addition, appropriate arrangements have been put in place for the regular monitoring of the risk appetite indicators. The Group has established a standardised, regular flow of information, based on its Management Information Systems, that ensures the timely and accurate monitoring of the indicators' levels. Also, clear escalation requirements are in place in case of limit breaches, in order to enable appropriate actions.

3.3 Types of risk

The Group is exposed to various types of risk that are managed at various levels of the organization.

The most important types of risk are:

- credit risk;
- market and liquidity risk;
- operational risk.

The individual risk types are defined in the subsequent sections.

The risk management functions of the BRC are performed by the GCRO and risk management sectors, which cover the following areas:

- Credit risk;
- Market, Counterparty and Liquidity risk;
- Operational risk.

Risk Management

Group Chief Risk Officer (GCRO)

Credit Risk

- Basel III IRB approach compliance for significant part of Group loan portfolios;
- Advanced IRB for all retail portfolios (consumer, mortgage, small business) and Foundation IRB for Corporate;
- Independent and centralised approval system;
- Systematic follow up of credits;
- Differentiated credit scoring system for consumer and small business banking, full financial and sectorial analysis for corporates based on independent credit rating;
- Disciplined provisioning policy (wholesale) and statistical portfolio behaviour (retail);
- Regular and ad hoc reporting to Senior Management (Executive Board Committee, BoD, BRC) regarding progress of portfolios and evolution of provisions.

Market, Counterparty & Liquidity Risk

- First Greek bank with complete and validated market risk management system by local regulator (BoG), which covers both trading and banking books;
- Compliance with new CRD IV rules for Trading book (stressed VaR and IRC);
- All market risks monitored daily against approved VaR limits;
- VaR methodology used for business decisions;
- Considerable stress testing development for non-normal market conditions, results monitored on a continuous basis;

Monitoring on a continuous basis the level of liquidity risk using regulatory and internal metrics and methodologies (LCR, NSFR, buffer analysis, cash flow analysis, short-term and medium-term stress test etc.);

- Daily monitoring of credit risk of derivatives' positions using PFE methodology;
- The operation and the monitoring of credit risk mitigation contracts (ISDA/CSA, GMRA) is done on a daily basis through an appropriate tool;
- Country risk, Counterparty and Issuer Risk monitored daily on a Group level through a centralised counterparty risk monitoring tool;
- CVA modelling;
- International operations: market risk for all International subsidiaries managed centrally in Greece;
- Interest rate risk in the Banking Book is monitored at least on a monthly basis.

Operational Risk

- Standardised Approach for Eurobank's consolidated operations;
- Documented and functioning operational risk framework & risk management system implemented Group-wide;
- Risk & Control Self Assessment program (RCSA);
- Operational risk events collection;
- Key Risk Indicator (KRI) set-up & monitoring;
- Operational risk scenario analysis;
- Operational risk reporting (internal & external);
- A number of operational risk mitigation programs underway throughout the Group;
- Center of competence for counter–fraud activity, coordinating & monitoring respective initiatives.
- Foster a strong operational risk culture within the Group by increasing risk awareness.
- Managing Eurobank's insurance policies.

4. Credit Risk

4.1 Definition of credit risk

Credit risk is the risk that a counterparty will be unable to fulfill its payment obligations in full when due. Credit risk also includes country risk and settlement risk.

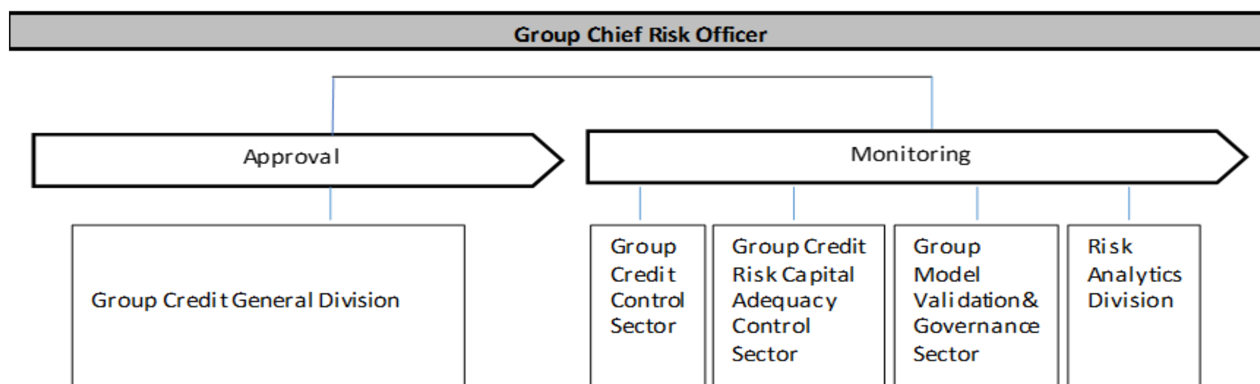
Country risk is the risk of losses arising from economic difficulties or political unrest in a country, including the risk of losses following nationalization, expropriation and debt restructuring.

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 Group remits payments before it can ascertain that the counterparties' payments have been received.

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

4.2 Credit risk organization and processes

4.2.1 Credit risk organization



The diagram above depicts the organizational structure of credit risk of the Bank. The functions of each sector are described below.

The organization of the credit risk divisions of the Group's subsidiary banks in International operations (Bulgaria, Serbia, Cyprus, Luxembourg) also follows the model of the Bank depicted above. The Risk Executive of each subsidiary bank reports directly to GCRO.

4.2.2 Credit approval process

The credit approval and credit review processes are centralised 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 Risk

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

- Credit Committees (Central and Local) authorised 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 authorised to approve credit requests and take actions for distressed clients;
- International Credit Committees (Regional & Country) established for the wholesale borrowers of the Group's international Bank subsidiaries, authorised 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)

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

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

Corporate Credit Risk

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

- Evaluation of credit applications and issuance of an independent Risk Opinion, which includes:

  (i) assessment of the customer credit profile based on the qualitative and quantitative risk factors identified (market, operational, structural and financial);

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

  (iii) review and confirmation of the ratings of each separate Borrower to reflect the risks acknowledged.

- Participation with voting right in all credit committees as per the Credit Approval procedures;

- Active participation in the regulatory audits and major internal projects of the Bank, providing at the same time credit related knowledge, expertise and support to other divisions;

- Preparation of specialised reports to the Senior Management on a regular basis, with regards to the Top 25 largest, in terms of total exposure, Borrower Groups, statistics on the new approved financings and leveraged transactions.

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

- Participation with voting right in all International Committees (Regional and Special Handling) and Country Risk Committees (CRCs);
- Participation in the sessions of Special Handling Monitoring Committees for Bulgaria and Serbia which monitor and decide on the strategy of problematic corporate relationships with loan outstanding exceeding a certain threshold, that is jointly set by ICS and Country TAG;
- Advice on best practices to the Credit Risk Units of International Subsidiaries;
- Initiation of, or participation in, ad hoc credit related projects involving the International Subsidiaries, such as, indicatively, Wholesale Field Reviews, AQRs, acquisition and/or sale of wholesale portfolios etc.

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

Retail Credit Risk

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

The tasks of the Retail Credit Risk function are outlined below:

1. Assess credit requests in alignment with the credit risk granting criteria and methodology provided in the appropriate Credit Policy Manual. The evaluation of the SBB portfolio includes the assessment of the borrower's financial position and statistical scorecards. Regarding the Individual Banking (mortgage and consumer loans), the credit criteria include among others the payment behavior, financial position of the borrower, the existence of real estate property and the type and quality of securities.
2. Analyse and evaluate risk factors depending on the type of credit request.
3. Prepare an independent Credit Opinion presenting the official GCGD opinion on the credit application and confirm, where required, the Borrower Rating for each Borrower in its portfolio ensuring that the risks identified are dully reflected in the Rating.
4. Participate with voting rights in the credit committees as per the credit approval process, according to the Approval Levels defined in the CPM.

4.2.3 Credit risk monitoring

Group Credit Control Sector

The quality of the Group's loan portfolio (corporate & retail) both in Greece and abroad is monitored and assessed by the Group Credit Control Sector (GCCS). The Sector is part of the 2nd line of defence and operates independently from all the business units of the Bank and reports directly to the GCRO.

The main activities of Group Credit Control Sector are:

- Monitor and assessment of the quality of Group's loan portfolio and inform Management accordingly;
- Formulate Group's credit policies and present to Board Risk Committee for approval;
- Advise on EBA classifications during the sessions of various credit committees;
- Continually monitor regulatory developments and propose policy updates when necessary;
- Support various corporate rating systems;
- Conduct field reviews and prepare written reports to management on the quality of loan portfolios for all the lending units of the Group;
- Participate in various Group committees and advise on credit related matters;
- Regularly monitor asset quality and prepare respective reports on a monthly/quarterly basis to MRC, BRC;
- Develop credit impairment policies for Group's total portfolio in line with IFRS 9 standards;
- Assess and assure on the accuracy and adequacy of provision levels;
- Prepare key supervisory disclosures.

Group Credit Risk Capital Adequacy Control Sector

The Group Credit Risk Capital Adequacy Control Sector's principal aim is 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); to develop and maintain the credit risk models for the Bank's loan portfolio; to measure the credit risk parameters (PD, LGD, EAD) for the loan portfolio for calculating capital requirements and IFRS9 provisions and to coordinate the stress testing exercises for the loan portfolios at Group Level. The Sector reports directly to GCRO.

The main activities of Group Credit Risk Capital Adequacy Control Sector are:

- Implementation of the IRB roll-out plan of the Group;
- Development, implementation and update of IRB models of Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) for evaluating credit risk;
- Development, implementation and monitoring of forecasting models linking macroeconomic factors with credit quality (e.g. forecasted 1yr PD, lifetime PD metrics etc) for the loan portfolios of the Group for IFRS9 and Stress Testing purposes;
- Measurement and monitoring of risk parameters (PD, LGD, EAD) for the purposes of capital adequacy calculations, as well as, for provisioning purposes;
- Reviewing the grouping of lending exposures and ensuring their homogeneity under IFRS standard;
- Re-assessing and re-developing the significant increase in credit risk (SICR) threshold under the IFRS9 standard;

- Monthly capital adequacy calculations (Pillar I) and preparation of relevant management, as well as, regulatory reports (COREPs, STE reports) on a quarterly basis;
- Performing stress tests, both internal and external (EBA/SSM), under the dynamic and static Balance Sheet approach, and maintaining the credit risk stress testing infrastructure;
- Preparation of credit risk analyses for the loan book of the Group for Internal Capital Adequacy Assessment (ICAAP) / Pillar II purposes;
- Preparation of Basel Pillar III disclosures for credit risk;
- Participation in the preparation of the Bank's Business plan, the NPE TAG Plan and the Recovery plan of the Group in relation to asset quality and capital requirements for the loan book (projected impairments projected RWAs and expected losses, excess/shortfall);
- Support the Business Units in the use of credit risk models in business decisions and the development and usage of risk related metrics such as Risk Adjusted Pricing, Risk Adjusted Return on Capital (RAROC) etc;
- Participation in several TAG related projects in terms of development of the "loss budget", risk assessment/impact of various programmes and new products, sensitivity scenarios;
- Monitoring of the regulatory framework in relation to the IRB framework performing impact assessment (e.g. QIS, benchmarking etc.), initiating and managing relevant projects;
- Monitor and guide International 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;
- Regular reporting to the GCRO, to the Management Risk Committee and to the Board Risk Committee on the following topics: risk models performance, risk parameters (PD, LGD, EAD), updates on regulatory changes and impact assessment, credit risk analysis and stress testing.

Group Model Validation and Governance Sector

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

- the initiation 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.

Risk Analytics Division

The scope of the Risk Analytics Division (RAD) is to develop and deploy advanced analytics solutions through utilising 'big-data' sources and innovative modelling techniques such as 'Machine Learning'. The underpinning objective of these solutions is to deliver risk – reward improvements across the Credit cycle: from credit origination through to account management and collections. The Risk Analytics Division also aims to improve the operational efficiency of the Credit origination process though enabling automation and digital transformation. Furthermore, the advanced analytics solutions aim to optimise Business decisions and the Product pricing.

The main functions and activities of RAD are to:

- Develop, maintain and excel a best-in-class Decision Science platform and the related modelling tools that can be leveraged by multiple units of the Bank to perform advanced analytics activities;
- Develop and maintain a set of libraries and data models to perform advanced analytics modelling;
- Provide expert support to Bank-wise projects through delivering adhoc analytics and bespoke models;
- Develop and maintain the Bank's Early Warning System (EWS) for the respective segments (Corporate, SME/SB and Retail);
- Develop and maintain the Bank's Cash Flow engine based on bank account transactional data and advanced analytics modelling.

4.2.4 Troubled Assets Management

The active and effective management of NPEs remains a strategic priority for the Group, with the aim to further reduce the NPEs stock in accordance with its operational targets agreed with the supervisory authorities, leveraging the external strategic partnership that it has entered into and the important legislative changes that have taken or are expected to take place.

Following the completion of corporate transformation (Hive-down) on 20 March 2020 and in accordance with the "Europe" and "Cairo" transactions on 5 June 2020, the Group entered into a strategic partnership with doValue S.p.A. for the management of its NPEs, the majority of which are included in the ERB Recovery DAC securitisation. In particular, the Group assigned the management of its remaining NPE portfolio, Retail early arrears and any future assets in the aforementioned perimeter, to doValue Greece Loans and Credits claim Management S.A. ("doValue Greece") through a 14-year Service Level Agreement ("SLA"). The Group retains the business ownership and overall responsibility for the performance of the NPEs and manages the relationship with doValue Greece through a structured governance and a solid control framework. In this context, Eurobank established Remedial Servicing & Strategy Sector («RSS»), a dedicated team that devises the NPE reduction plan, actively sets the strategic principles and KPIs framework under which doValue Greece manages the portfolio, closely monitors the execution of the approved strategies and service level agreements and ensures compliance with regulatory requirements.

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

The main duties and responsibilities of the Troubled Assets Committee are the following:

- Process centrally all the internal reports regarding troubled assets management under the regulatory provisions;
- Approve the available forbearance, resolution and closure solutions by loan sub-portfolio and monitor their performance through suitable key performance indicators (KPIs);
- Define criteria to assess the sustainability of credit and collateral workout solutions (design and use of "decision trees");
- Determine the parameters and the range of responsibilities of the bodies and officers involved in the assessment of viability and sustainability of the proposed modifications and the subsequent monitoring of their implementation;
- Design, monitor and assess pilot modification programs in cooperation with the business units and
- Supervise and provide guidance and know-how to the respective troubled assets units of the Bank's subsidiaries abroad.

The Remedial & Servicing Strategy Sector (RSS) is a newly established Sector, the Head of which reports to the General Manager of Group Strategy. The Remedial & Servicing Strategy Sector (RSS) has the mandate of the close monitoring of the overall performance of the NPE portfolio as well as the relationship of the Bank with doValue Greece.

In this context, RSS is a dedicated team that inter alia is responsible for:

- Developing and actively monitoring the NPE targets and reduction plan;
- Setting the strategic principles, priorities, policy framework and KPI's under which doValue Greece is servicing the portfolio;
- Closely monitoring the execution of the approved strategies, as well as all contractual provisions under the SPAs and SLAs of Eurobank portfolio assigned to doValue Greece (Europe project) and ERB Recovery DAC securitisation (Flagship project);

- Monitoring of the performance of the senior notes of the securitisations and collaboration with Group Risk so as to ensure Significant Risk Transfer (SRT) compliance;
- Budgeting and monitoring of the Bank's expenses and revenues associated with projects Europe and Flagship;
- Cooperating closely with doValue Greece on a daily basis in achieving all above;
- Maintaining supervisory dialogue.

4.2.5 Recent developments

According to the Hellenic Statistical Authority (ELSTAT), the real GDP growth rate in 2020 registered a decrease of -8.2% on an annual basis, from 1.9% in 2019, mainly as a result of the COVID-19 attributed drop in the final consumption expenditure and to exports of goods and services. On a quarterly basis, real GDP was at 0.1%, -13.8%, -10.5% and -7.9% on an annual basis, in the first, second, third and fourth quarters of 2020. According to the European Commission (EC) 2021 winter economic forecasts (February 2021), the real GDP growth rate for 2021 and 2022 is expected at 3.5% and 5.0% respectively. According to the 2021 Budget that passed in Parliament in early December 2020 and did not account for a continuation of the pandemic in the first semester of 2021, the real GDP growth rate for 2021 was expected at 4.8%.

On the fiscal front, according to the 2021 Budget (November 2020), the primary balance for 2020 and 2021 is expected to register a deficit of -6.8% and -3.8% of GDP respectively, in ESA2010 terms. On the public debt front, according to the 9th Enhanced Surveillance, the gross public debt is expected at 209.0% and 200.0% of GDP for 2020 and 2021 respectively. The aforementioned primary balance and debt figures for 2020 and 2021 might change significantly as a result of (a) the COVID-19 related developments and the abolition of the containment measures, (b) the actual size of the public sector's support measures that – as of early March 2021 – amount to €31.4 billion, out of which €23.9 billion correspond to 2020 and €7.6 billion to 2021, (c) the deterioration in tax revenues due to the Government's relevant moratoria, (d) the decline of economic activity and (e) the EU funds (€32 billion from the Next Generation EU fund and €40 billion from the Multiannual Financial Framework 2021-2027.

Conditions in the domestic labour market deteriorated in 2020 as a result of the pandemic but at a slower pace than initially expected. The slower pace was mainly due to the employment support measures implemented by the Greek government. According to ELSTAT the unemployment rate stood at 16.2% in November 2020 on an annual basis (November 2019: 16.6%). According to the EC's autumn economic forecasts (November 2020), the unemployment rate is expected at 18.0%, 17.5% and 16.7% for 2020, 2021 and 2022 respectively. According to the 2021 Budget, the unemployment rate in 2020 and 2021 was expected at 18.9% and 17.9% respectively. Finally, according to the Bank of Greece, the stock of NPLs in the Greek Banking Sector was at € 58.7 billion or 35.8% of total loans in the third quarter of 2020 from € 68.5 billion or 40.6% of total loans at the end of 2019. All the 4 systemic Banks have submitted their NPE strategy and targets to SSM for the three-year period 2019-2021. The full abolition of the capital controls in September 2019 together with the implementation of the Hercules asset protection scheme for the reduction of the stock of NPLs, and the various NPLs related initiatives, improved the confidence towards the Greek banking sector. As a result, according to the Bank of Greece, private sector domestic deposits amounted to €163.0 billion at the end of December 2020 from €143.1 billion at the end of December 2019, registering an annual increase of 13.9%. The significant increase in deposits was also attributed to the COVID-19 containment measures that prevent consumption by households together with the government measures aiming to support the private sector and the uncertainty created by the pandemic environment.

4.3 Credit risk reporting

Group Credit Control and Group Credit Risk Capital Adequacy Sectors regularly prepare a detailed analysis of information to quantify, monitor and evaluate risks, as well as provide support to implement the BRC risk management decisions. It has a fixed reporting cycle to ensure that the relevant management bodies and the Board Risk Committee, are updated on an ongoing basis on the developments in the credit portfolio.

The principal risk reports submitted to the relevant management bodies, on a quarterly basis, deal with the following topics:

The quality of the Group's portfolio:	Analysis of provisions for impairment and losses by business unit. Portfolio breakdowns and evolution by rating category, size, delinquency, industry, tenor, vintage and collateralization etc.
Large exposures:	- An overview of the twenty five (25) largest exposures (for Greece and International subsidiaries). -The largest problematic and non performing exposures (o/s balances, collaterals, provisions).
Forborne loans evolution	Analysis by portfolio, delinquency status; re-default statistics on a vintage basis; impairment levels and evolution over time.
The Bank's risk management models and parameters:	Update on the use of risk models, including risk parameters applied and the key results of the models' validation.
	Update on capital adequacy.
	Stress testing scenarios.

In addition, there are reports which are prepared on a monthly basis, in order to inform the relevant management bodies on the evolution of each business area's balances, delinquencies and provisions (impairment charges).

4.4 Credit exposures

The following table presents the Group's total and average values of on and off-balance sheet exposures, after impairments and before any credit risk mitigation (CRM) and any credit conversion factor (CCF), as at 31 December 2020 and 2019.

Table 12: EU CRB-B - Total and average net amount of exposures

	2020		2019	
	Net value of exposures € million	Average net exposures € million	Net value of exposures € million	Average net exposures € million
Central governments or central banks	-	-	-	-
Institutions	-	-	-	-
Corporates [1]	13,019	13,264	12,877	12,110
- Corporates (Foundation IRB approach)	12,679	12,944	12,554	11,795
- Retail exposures that exceed € 1 million (Advanced IRB approach)	340	320	323	315
Of which: Specialised lending	2,957	3,014	2,998	2,662
Of which: SMEs	3,840	3,956	4,190	4,254
Retail [2]	12,612	13,349	14,656	15,242
Secured by real estate property	7,649	8,517	9,802	10,312
SMEs	1,826	2,313	3,006	2,971
Non-SMEs	5,823	6,204	6,796	7,342
Qualifying revolving	2,056	2,073	2,124	2,152
Other retail	2,907	2,759	2,730	2,778
SMEs	1,758	1,586	1,542	1,531
Non-SMEs	1,149	1,173	1,188	1,247
Equity	209	209	221	176
Total IRB approach	**25,840**	**26,822**	27,754	27,528
Central governments or central banks [3]	29,087	26,446	19,545	17,410
Regional governments or local authorities	39	42	47	50
Public sector entities	708	710	707	713
Multilateral development banks	122	140	115	114
International organisations	171	182	199	199
Institutions [4]	5,172	5,891	12,449	12,790
Corporates [1]	6,303	6,107	5,959	5,610
Of which: SMEs	4,148	2,857	711	675
Retail	3,346	3,312	3,275	3,233
Of which: SMEs	736	700	718	698
Secured by mortgages on immovable property	3,866	3,948	4,042	4,082
Of which: SMEs	518	439	227	238
Exposures in default	910	1,020	1,390	1,516
Items associated with particularly high risk	300	297	255	206
Covered bonds	376	319	182	174
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-
Collective investments undertakings	-	-	-	-
Equity exposures	190	180	145	132
Other exposures	4,184	4,036	3,658	3,331
Total standardised approach	**54,774**	**52,630**	51,968	49,560
Total	**80,614**	**79,452**	79,722	77,088

[1] The increase of the exposures in Corporate portfolio compared to 2019 is mainly due to the expansion in new lending volumes including Government Guaranteed programs and subsidies in the context of COVID-19 relief measures.

[2] The decrease in Retail A-IRB Exposures compared to 2019 is due to the Cairo transaction and write offs.

[3] The increase of the exposures in Central governments or central banks compared to 31 December 2019, is mainly due to the increase of liquidity received from Eurosystem Funding (TLTRO) and the increase of customer deposits.

[4] The decrease in Institutions compared to 31 December 2019, is mainly due to the decrease of Repo/Reverse Repo which their exposure after taking into account the master netting agreements with the counterparties is presented now and matches with the presentation of this exposure in COREPs.

[5] Exposures with counterparties are included in the table.

[6] Securitisations are not included in the table

4.4.1 Geographical and industry analysis

The following table presents the geographical breakdown of the net value of exposures as at 31 December 2020 and 2019.

Table 13: EU CRB-C – Geographical breakdown of exposures

	31 December 2020						
	Net values						
	Greece € million	Romania € million	Bulgaria € million	United Kingdom € million	Cyprus € million	Other countries € million	Total € million
Central governments or central banks	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-
Corporates	13,019	-	-	-	-	-	**13,019**
- Corporates (Foundation IRB approach)	12,679	-	-	-	-	-	**12,679**
- Retail exposures that exceed € 1 million (Advanced IRB approach)	340	-	-	-	-	-	**340**
Of which: Specialised lending	2,957	-	-	-	-	-	**2,957**
Of which: SMEs	3,840	-	-	-	-	-	**3,840**
Retail	12,612	-	-	-	-	-	**12,612**
Secured by real estate property	7,649	-	-	-	-	-	**7,649**
SMEs	1,826	-	-	-	-	-	**1,826**
Non-SMEs	5,823	-	-	-	-	-	**5,823**
Qualifying revolving	2,056	-	-	-	-	-	**2,056**
Other retail	2,907	-	-	-	-	-	**2,907**
SMEs	1,758	-	-	-	-	-	**1,758**
Non-SMEs	1,149	-	-	-	-	-	**1,149**
Equity	63	-	5	2	7	132	**209**
Total IRB approach	**25,694**	**-**	**5**	**2**	**7**	**132**	**25,840**
Central governments or central banks	13,638	127	1,121	-	1,958	12,243	**29,087**
Regional governments or local authorities	38	-	1	-	-	-	**39**
Public sector entities	708	-	-	-	-	-	**708**
Multilateral development banks	-	-	-	-	-	122	**122**
International organisations	-	-	-	-	-	171	**171**
Institutions	302	52	8	2,355	2	2,453	**5,172**
Corporates	942	-	1,894	147	1,269	2,051	**6,303**
Retail	1,192	2	1,225	31	314	582	**3,346**
Secured by mortgages on immovable property	2,011	111	1,381	56	125	182	**3,866**
Exposures in default	636	93	112	1	25	43	**910**
Items associated with particularly high risk	2	-	173	8	57	60	**300**
Covered bonds	69	-	-	-	-	307	**376**
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	**-**
Collective investments undertakings	-	-	-	-	-	-	**-**
Equity exposures	190	-	-	-	-	-	**190**
Other exposures	3,572	134	270	2	54	152	**4,184**
Total standardised approach	**23,300**	**519**	**6,185**	**2,600**	**3,804**	**18,366**	**54,774**
Total	**48,994**	**519**	**6,190**	**2,602**	**3,811**	**18,498**	**80,614**

Credit Risk

	31 December 2019						
	Net values						
	Greece € million	Romania € million	Bulgaria € million	United Kingdom € million	Cyprus € million	Other countries € million	Total € million
Central governments or central banks	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-
Corporates	12,877	-	-	-	-	-	**12,877**
- Corporates (Foundation IRB approach)	12,554	-	-	-	-	-	**12,554**
- Retail exposures that exceed € 1 million (Advanced IRB approach)	323	-	-	-	-	-	**323**
Of which: Specialised lending	2,998	-	-	-	-	-	**2,998**
Of which: SMEs	4,190	-	-	-	-	-	**4,190**
Retail	14,656	-	-	-	-	-	**14,656**
Secured by real estate property	9,802	-	-	-	-	-	**9,802**
SMEs	3,006	-	-	-	-	-	**3,006**
Non-SMEs	6,796	-	-	-	-	-	**6,796**
Qualifying revolving	2,124	-	-	-	-	-	**2,124**
Other retail	2,730	-	-	-	-	-	**2,730**
SMEs	1,542	-	-	-	-	-	**1,542**
Non-SMEs	1,188	-	-	-	-	-	**1,188**
Equity	65	-	5	2	7	142	**221**
Total IRB approach	**27,598**	**-**	**5**	**2**	**7**	**142**	**27,754**
Central governments or central banks	12,806	74	866	-	1,496	4,303	**19,545**
Regional governments or local authorities	46	-	1	-	-	-	**47**
Public sector entities	707	-	-	-	-	-	**707**
Multilateral development banks	-	-	-	5	-	110	**115**
International organisations	-	-	-	-	-	199	**199**
Institutions	160	37	18	6,796	1	5,437	**12,449**
Corporates	986	2	1,806	137	1,170	1,858	**5,959**
Retail	1,291	15	1,125	16	267	561	**3,275**
Secured by mortgages on immovable property	2,251	131	1,269	59	128	204	**4,042**
Exposures in default	1,061	116	150	1	24	38	**1,390**
Items associated with particularly high risk	10	-	106	6	71	62	**255**
Covered bonds	82	-	-	-	-	100	**182**
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	**-**
Collective investments undertakings	-	-	-	-	-	-	**-**
Equity exposures	145	-	-	-	-	-	**145**
Other exposures	3,030	152	275	5	43	153	**3,658**
Total standardised approach	**22,575**	**527**	**5,616**	**7,025**	**3,200**	**13,025**	**51,968**
Total	**50,173**	**527**	**5,621**	**7,027**	**3,207**	**13,167**	**79,722**

[1] The increase in Other Countries compared to 31 December 2019, is mainly due to the increase of liquidity received from Eurosystem Funding (TLTRO).
[2] Exposures with counterparties are included in the table.
[3] The table above does not include securitisations.

Credit Risk

The following table presents a breakdown by industry sector as at 31 December 2020 and 2019.

Table 14: EU CRB-D - Concentration of exposures by industry or counterparty types

(€ million)

	31 December 2020																		
	Net values																		
	Agriculture, forestry and fishing	Mining and quaring	Manufacturing	Electricity, gas, steam and air conditioning supply	Construction	Wholesale and retail trade	Transport and storage	Accomodation and food service activities	Information and communication	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Human health services and social work activities	Arts, entertainment and recration	Other services [2]	Households	Central Banks & Central Governments	Financial and Insurance activities	Total
Central governments or central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporates	164	45	2,574	675	721	2,251	2,073	1,488	178	689	78	172	790	611	220	-	-	290	13,019
Retail	64	8	397	9	276	1,396	143	313	65	32	468	61	93	25	223	9,029	-	10	12,612
Equity	-	-	-	-	-	3	-	-	2	84	-	-	-	-	37	-	-	83	209
Total IRB approach	**228**	**53**	**2,971**	**684**	**997**	**3,650**	**2,216**	**1,801**	**245**	**805**	**546**	**233**	**883**	**636**	**480**	**9,029**	**-**	**383**	**25,840**
Central governments or central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29,087	-	29,087
Regional governments or local authorities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	-	39
Public sector entities [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	708	-	708
Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	-	-	-	122
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	171	-	171
Institutions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	5,170	5,172
Corporates	67	198	1,020	278	286	1,255	529	595	157	451	91	27	44	49	382	76	-	798	6,303
Retail	36	5	107	6	90	212	42	25	14	67	36	27	10	7	31	2,608	-	23	3,346
Secured by mortgages on immovable property	7	1	39	8	62	117	24	75	5	194	31	12	11	2	116	3,127	-	35	3,866
Exposures in default	5	1	31	4	31	55	6	32	2	14	18	4	1	1	56	640	-	9	910
Items associated with particularly high risk	-	-	3	-	110	11	1	5	-	139	8	-	-	-	-	3	-	20	300
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	276	376
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190	190
Other exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	16
Total standardised approach	**115**	**205**	**1,200**	**296**	**579**	**1,650**	**602**	**732**	**178**	**865**	**184**	**70**	**66**	**59**	**762**	**6,456**	**30,066**	**6,521**	**50,606**
Total	**343**	**258**	**4,171**	**980**	**1,576**	**5,300**	**2,818**	**2,533**	**423**	**1,670**	**730**	**303**	**949**	**695**	**1,242**	**15,485**	**30,066**	**6,904**	**76,446**

Credit Risk

(€ million)

	31 December 2019																			
	Net values																			
	Agriculture, forestry and fishing	Mining and quaring	Manufacturing	Electricity, gas, steam and air conditioning supply	Construction	Wholesale and retail trade	Transport and storage	Accomodation and food service activities	Information and communication	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Human health services and social work activities	Arts, entertainment and recration	Other services [2]	Households	Central Banks & Central Governments	Financial and Insurance activities	Total
Central governments or central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporates	178	64	2,390	637	961	2,343	1,858	1,435	267	876	136	165	692	629	103	-	-	143	12,877
Retail	76	10	457	8	365	1,677	213	376	66	35	739	61	109	38	304	10,107	-	15	14,656
Equity	-	-	-	-	-	4	-	-	2	90	-	-	-	5	39	-	-	81	221
Total IRB approach	254	74	2,847	645	1,326	4,024	2,071	1,811	335	1,001	875	226	801	672	446	10,107	-	239	27,754
Central governments or central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	19,513	-	19,545
Regional governments or local authorities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	-	-	-	47
Public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	707	-	707
Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	-	-	-	115
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	199	-	199
Institutions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,449	12,449
Corporates	68	142	970	263	326	1,142	502	503	148	378	107	41	40	50	325	77	-	877	5,959
Retail	35	5	115	5	81	220	42	29	14	40	39	20	10	5	51	2,536	-	28	3,275
Secured by mortgages on immovable property	7	1	48	6	86	127	31	83	4	210	34	8	13	4	125	3,233	-	22	4,042
Exposures in default	7	2	33	10	46	70	15	19	5	15	12	2	2	2	66	1,072	-	12	1,390
Items associated with particularly high risk	-	-	2	-	75	4	1	6	-	108	16	10	-	-	1	3	-	29	255
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	82	182
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	145
Other exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	21
Total standardised approach	117	150	1,168	284	614	1,563	591	640	171	751	208	81	65	61	783	6,921	20,519	13,644	48,331
Total	371	224	4,015	929	1,940	5,587	2,662	2,451	506	1,752	1,083	307	866	733	1,229	17,028	20,519	13,883	76,085

(1) Other services include Water supply, Public administration and defence compulsory social security, Education, Food & Beverages, and Industrial.
(2) The table above does not include securitisations, fixed assets, other assets and cash.
(3) Exposures with counterparties are included in the table.

4.4.2 Maturity analysis

The following table presents a breakdown of net exposures by residual maturity and exposure classes as at 31 December 2020 and 2019.

Table 15: EU CRB-E – Maturity analysis of exposures

	31 December 2020					
	Net exposure value					
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
	€ million	€ million	€ million	€ million	€ million	€ million
Central governments or central banks	-	-	-	-	-	**-**
Institutions	-	-	-	-	-	**-**
Corporates	-	2,763	5,569	3,309	53	**11,694**
Retail	-	214	1,260	7,857	1,117	**10,448**
Equity	-	-	-	-	209	**209**
Total IRB approach	**-**	**2,977**	**6,829**	**11,166**	**1,379**	**22,351**
Central governments or central banks	-	18,761	1,494	4,458	4,374	**29,087**
Regional governments or local authorities	-	-	9	29	-	**38**
Public sector entities	-	-	-	-	708	**708**
Multilateral development banks	-	122	-	-	-	**122**
International organisations	-	170	1	-	-	**171**
Institutions	-	2,127	161	2,721	73	**5,082**
Corporates	-	4,664	255	242	-	**5,161**
Retail	-	173	443	1,801	120	**2,537**
Secured by mortgages on immovable property	-	21	237	3,587	-	**3,845**
Exposures in default	-	129	105	586	87	**907**
Items associated with particularly high risk	-	207	-	-	-	**207**
Covered bonds	-	22	243	111	-	**376**
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	**-**
Collective investments undertakings	-	-	-	-	-	**-**
Equity exposures	-	-	-	-	190	**190**
Other exposures	380	92	-	-	3,712	**4,184**
Total standardised approach	**380**	**26,488**	**2,948**	**13,535**	**9,264**	**52,615**
Total	**380**	**29,465**	**9,777**	**24,701**	**10,643**	**74,966**

	31 December 2019					
	Net exposure value					
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
	€ million	€ million	€ million	€ million	€ million	€ million
Central governments or central banks	-	-	-	-	-	-
Institutions	-	-	-	-	-	-
Corporates	-	3,824	4,324	3,391	49	11,588
Retail	-	560	912	9,593	1,549	12,614
Equity	-	-	-	-	221	221
Total IRB approach	-	4,384	5,236	12,984	1,819	24,423
Central governments or central banks	-	8,876	947	5,096	4,626	19,545
Regional governments or local authorities	-	-	11	35	-	46
Public sector entities	-	-	-	-	707	707
Multilateral development banks	-	73	42	-	-	115
International organisations	-	25	174	-	-	199
Institutions	-	9,854	113	2,339	49	12,355
Corporates	-	4,536	111	193	-	4,840
Retail	-	169	465	1,950	31	2,615
Secured by mortgages on immovable property	-	35	241	3,753	-	4,029
Exposures in default	-	296	156	930	1	1,383
Items associated with particularly high risk	-	212	-	-	-	212
Covered bonds	-	38	44	100	-	182
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-
Equity exposures	-	-	-	-	145	145
Other exposures	444	92	-	-	3,122	3,658
Total standardised approach	444	24,206	2,304	14,396	8,681	50,031
Total	444	28,590	7,540	27,380	10,500	74,454

[(1)] *The table above does not include securitisations and Off Balance Sheet items*
[(2)] *Exposures with counterparties are included in the table.*

4.5 Credit quality of financial assets

The Group recognizes allowance for expected credit losses (ECL) that reflect changes in credit quality since initial recognition to financial assets that are measured at AC and FVOCI, including loans, securitised notes issued by special purpose vehicles established by the Group, lease receivables, debt securities, financial guarantee contracts, and loan commitments.

a. Definitions

Loans and advances to customers, including securitised notes issued by special purpose entities established by the Group, 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 recognised as they exhibit no significant increase in credit risk since initial recognition and loans for which a 'Lifetime ECL allowance' is recognised 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 recognised and loans classified as 'Purchased or originated credit impaired' (POCI) which are always measured on the basis of ECL.

Regulatory definitions

'Default exposures', in line with the regulatory definition of default as adopted by the Group, include material exposures that are past due more than 90 days, exposures that are assessed by Group as unlikely to pay as well as those that are assessed for impairment individually and carry an individual impairment allowance.

'Non-performing exposures' as currently monitored and reported by the Group, 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.

'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.

The new definition of default (DoD) for regulatory purposes introduced a new set of standards that will have a significant impact on governance, data, processes, systems and credit models. The new DoD is applicable from 1 January 2021 and is set in the Article 178 of Regulation (EU) No. 575/2013, the Commission Delegated Regulation (EU) 2018/171 and European Banking Authority (EBA) Guidelines (EBA/GL/2016/07). It aims at the harmonization of the definition of default across institutions and jurisdictions in the European Union. In particular, the new DoD guidelines specify that days past due are counted from the date that both materiality thresholds are breached (an absolute amount of the total exposure and a relative as a percentage of the exposure), include conditions for a return to non-defaulted status (introduction of a probation period) and explicit criteria for classification of restructured loans as defaulted when the diminished financial obligation criterion is satisfied (difference between the net present value of cash flows before and after the restructuring exceeds the threshold of 1%).

The Group is already applying the above new provisions of DoD, in order to identify defaulted exposures starting from 1 January 2021, consistently across all its lending portfolios and subsidiaries, subject to local regulations and specific credit risk characteristics of each jurisdiction. Accordingly, the definition of default for accounting purposes will be aligned with the new DoD, as well as with the one used for internal credit risk management purposes. The impact in the Group's Excepted Credit Loss from the implementation of the new definition of default is not estimated to be material.

b. Impairment indicators

To determine the risk of default, the Group applies a default definition for accounting purposes, which is consistent with the European Banking Authority (EBA) definition for non-performing exposure. 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 Group, for economic or contractual reasons relating to the borrower's financial difficulty, has granted to the borrower a concession(s) that the Group would not otherwise consider;
- There is a probability that the borrower will enter bankruptcy or other financial re-organization;

- For Purchased or originated credit impaired (POCI) financial assets, a purchase or origination at a deep discount that reflects incurred credit losses is considered a detrimental event. The Group assesses the deep discount criterion following a principle -based approach with the aim to incorporate all reasonable and supportable information which reflects market conditions that exist at the time of the assessment.

For debt securities, the Group determines the risk of default using an internal credit rating scale. The Group considers debt securities as credit impaired if the internal credit 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.

For further details, please refer to Consolidated Financial Statements, Note 2.

c. Impairment assessment

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

At each reporting date, the Group performs an assessment as to whether the risk of a default occurring over the remaining expected lifetime of the exposure has increased significantly from the expected risk of a default estimated at origination for that point in time. The assessment for SICR is performed using both qualitative and quantitative criteria based on reasonable and supportable information that is available without undue cost or effort including forward looking information and macroeconomic scenarios as well as historical experience.

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

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

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

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.

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

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

d. Impairment measurement

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

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

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

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

ECL key inputs

The ECL calculations are based on the term structures of the probability of default (PD), the loss given default (LGD), the exposure at default (EAD) and other input parameters such as the credit conversion factor (CCF) and the prepayment rate. Generally, the Group derives these parameters from internally developed statistical models and observed point-in-time and historical data, or by international rating agencies, where applicable, 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 IFRS 9 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.

Credit Risk

The following table presents a breakdown of their defaulted and non-defaulted exposures by exposure classes as at 31 December 2020 and 30 June 2020.

Table 16: EU CR1-A – Credit quality of exposures by exposure class and instrument

	31 December 2020						
	Gross carrying values of						
	Defaulted exposures € million	Non-defaulted exposures € million	Specific credit risk adjustment € million	General credit risk adjustment € million	Accumulated write-offs[7] € million	Credit risk adjustment charges 1/1-31/12/2020 € million	Net values € million
Central governments or central banks	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-
Corporates [2]	1,987	12,247	1,214	-	193	696	13,020
Of which: Specialised lending	223	2,867	134	-	9	127	2,956
Of which: SMEs	1,539	3,210	909	-	138	448	3,840
Retail [3]	1,505	12,371	1,264	-	151	1,158	12,612
Secured by real estate property	1,135	7,306	792	-	89	922	7,649
SMEs	555	1,577	307	-	47	489	1,825
Non-SMEs	580	5,729	485	-	43	432	5,824
Qualifying revolving	105	2,101	149	-	13	19	2,057
Other retail	265	2,965	323	-	49	218	2,907
SMEs	143	1,800	185	-	28	120	1,758
Non-SMEs	122	1,164	138	-	21	97	1,148
Equity	-	209	-	-	-	-	209
Total IRB approach	**3,492**	**24,827**	**2,478**	**-**	**344**	**1,854**	**25,841**
Central governments or central banks[4]	-	29,089	3	-	-	1	29,086
Regional governments or local authorities	1	40	1	-	-	4	39
Public sector entities	19	708	-	-	-	-	708
Multilateral development banks	-	122	-	-	-	-	122
International organisations	-	171	-	-	-	-	171
Institutions[5]	-	5,174	2	-	-	2	5,172
Corporates	143	6,336	33	-	-	28	6,303
Of which: SMEs	116	4,167	20	-	-	-	4,147
Retail	916	3,483	136	-	-	36	3,347
Of which: SMEs	142	752	16	-	-	26	736
Secured by mortgages on immovable property	690	3,888	23	-	-	20	3,865
Of which: SMEs	73	523	5	-	-	-	518
Exposures in default [1]	*1,769*	-	859	-	199	145	910
Items associated with particularly high risk	27	316	16	-	8	-	300
Covered bonds	-	376	1	-	-	-	375
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-
Equity exposures	-	190	-	-	-	-	190
Other exposures	-	4,185	-	-	-	-	4,185
Total standardised approach	**1,796**	**54,078**	**1,074**	**-**	**207**	**236**	**54,773**
Total	**5,288**	**78,905**	**3,552**	**-**	**551**	**2,090**	**80,614**
Of which: Loans to banks and customers	5,236	35,361	3,477	-	551	2,079	37,120
Of which: Debt Securities [6]	-	8,245	5	-	-	9	8,240
Of which: Off-balance sheet exposures	52	5,660	66	-	-	2	5,646

Credit Risk

	30 June 2020						
	Gross carrying values of						
	Defaulted exposures € million	Non-defaulted exposures € million	Specific credit risk adjustment € million	General credit risk adjustment € million	Accumulated write-offs[7] € million	Credit risk adjustment charges 1/1-30/06/2020 € million	Net values € million
Central governments or central banks	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-
Corporates	4,753	11,977	3,152	-	85	574	13,578
Of which: Specialised lending	708	2,878	451	-	-	128	3,135
Of which: SMEs	3,331	2,839	2,205	-	43	348	3,965
Retail	5,577	12,358	4,233	-	12	1,055	13,702
Secured by real estate property	4,298	7,698	3,006	-	7	877	8,990
SMEs	2,185	1,796	1,408	-	3	457	2,573
Non-SMEs	2,113	5,902	1,598	-	4	420	6,417
Qualifying revolving	341	2,060	355	-	3	17	2,046
Other retail	937	2,602	873	-	3	161	2,666
SMEs	546	1,472	540	-	2	90	1,478
Non-SMEs	391	1,130	333	-	1	71	1,188
Equity	-	214	-	-	-	-	214
Total IRB approach	10,330	24,549	7,385	-	97	1,629	27,494
Central governments or central banks	-	27,976	4	-	-	2	27,972
Regional governments or local authorities	1	44	1	-	-	4	43
Public sector entities	19	708	-	-	-	-	708
Multilateral development banks	-	139	-	-	-	-	139
International organisations	-	185	-	-	-	-	185
Institutions	-	5,925	3	-	-	3	5,922
Corporates	159	6,086	17	-	-	3	6,069
Of which: SMEs	121	2,525	11	-	-	-	2,514
Retail	1,185	3,401	138	-	-	27	3,263
Of which: SMEs	149	689	15	-	-	16	674
Secured by mortgages on immovable property	754	3,954	19	-	-	10	3,935
Of which: SMEs	61	484	5	-	-	-	479
Exposures in default [1]	*2,118*	-	1,108	-	24	111	1,010
Items associated with particularly high risk	34	308	20	-	-	-	288
Covered bonds	-	303	1	-	-	-	302
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-
Equity exposures	-	200	-	-	-	-	200
Other exposures	-	4,224	-	-	-	-	4,224
Total standardised approach	2,152	53,453	1,311	-	24	160	54,260
Total	12,482	78,002	8,696	-	121	1,789	81,754
Of which: Loans to banks and customers	12,383	35,921	8,617	-	121	1,780	39,687
Of which: Debt Securities	-	9,694	7	-	-	9	9,687
Of which: Off-balance sheet exposures	99	5,372	68	-	-	-	5,403

[1] Includes subtotal of gross carrying values of all other asset classes and is not added in "Total standardised approach".

[2] The increase in performing Corporate exposures under IRB compared to 30 June 2020 is mainly due to expansion in new lending volumes including Government Guaranteed programs and subsidies in the context of COVID-19 relief measures. The decrease in the defaulted Corporate exposures under IRB is due to the securitisation of such exposures (Cairo transaction), write-offs and improving quality of portfolio.

[3] The decrease in Retail defaulted exposures under IRB compared to 30 June 2020 is due to the Cairo transaction and write offs.

[4] The increase in Central governments or central banks compared to 30 June 2020, is mainly due to increase of nostros with Central banks.

[5] The decrease of the exposure towards Credit Institutions compared to 30 June 2020 is explained mainly due to the decrease of the margin posted under collateral agreements following market movements and due to liquidity management activities.

[6] The decrease in debt securities compared to 30 June 2020, is mainly due to the decrease of sovereign bonds.

[7] Presents the cumulative write offs within the year.

[8] The table above does not include securitisations.

Credit Risk

The following table presents the movement in the provision on loans and advances to customers from 1 July to 31 December 2020 according to the Consolidated Financial Statements.

Table 17: EU CR2-A – Changes in the stock of general and specific credit risk adjustments

	31 December 2020	
	Accumulated specific credit risk adjustment € million	Accumulated general credit risk adjustment € million
Opening balance as at 1 July 2020	3,700	-
Transfer of ECL allowance for off balance sheet items	-	-
Increases due to amounts set aside for estimated loan losses during the period	300	-
Decreases due to amounts reversed for estimated loan losses during the period	(4)	-
Decreases due to amounts taken against accumulated credit risk adjustments (write offs)	(430)	-
Transfers between credit risk adjustments	-	-
Impact of exchange rate differences	(18)	-
Business combinations, including acquisitions and disposals of subsidiaries	-	-
NPV unwinding	(33)	-
Recoveries of amounts previously written off	18	-
Other adjustments	(56)	-
Closing balance as at 31 December 2020	**3,477**	**-**
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	-	-
Specific credit risk adjustments directly recorded to the statement of profit or loss	-	-

The following table presents the changes in the stock of defaulted and impaired loans and debt securities from 1 July to 31 December 2020.

Table 18: EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities

	31 December 2020
	Gross carrying value defaulted exposures € million
Opening balance as at 1 July 2020	**12,383**
Loans and debt securities that have defaulted or impaired since the last reporting period	269
Returned to non-defaulted status	(170)
Amounts written off	(430)
Other changes[1]	(6,816)
Closing balance as at 31 December 2020	**5,236**

[1] The "Other changes" include derecognition adjustments mainly due to Cairo transaction.

The following table presents an overview of the quality of forborne exposures as at 31 December 2020 and 30 June 2020.

Table 19: Credit quality of forborne exposures

31 December 2020	Gross carrying amount/nominal amount with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collaterals received and financial guarantees received on forborne exposures	
		Non-performing forborne						
	Performing forborne € million	€ million	Of which defaulted € million	Of which impaired € million	On performing forborne exposures € million	On non-performing forborne exposures € million	€ million	Of which: Collateral and financial guarantees received on non-performing exposures with forbearance measures € million
Loans and advances	**2,974**	**1,887**	**1,423**	**1,887**	**(257)**	**(853)**	**3,144**	**965**
Central banks	-	-	-	-	-	-	-	-
General governments	-	-	-	-	-	-	-	-
Credit institutions	-	-	-	-	-	-	-	-
Other financial corporations	4	41	41	41	-	(20)	23	21
Non-financial corporations	1,178	959	838	959	(126)	(393)	1,379	534
Households	1,792	887	544	887	(131)	(440)	1,742	410
Debt Securities	-	-	-	-	-	-	-	-
Loan commitments given	-	-	-	-	-	-	-	-
Total	**2,974**	**1,887**	**1,423**	**1,887**	**(257)**	**(853)**	**3,144**	**965**

30 June 2020	Gross carrying amount/nominal amount with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collaterals received and financial guarantees received on forborne exposures	
		Non-performing forborne						
	Performing forborne € million	€ million	Of which defaulted € million	Of which impaired € million	On performing forborne exposures € million	On non-performing forborne exposures € million	€ million	Of which: Collateral and financial guarantees received on non-performing exposures with forbearance measures € million
Loans and advances	3,133	1,938	1,481	1,902	(247)	(857)	3,289	976
Central banks	-	-	-	-	-	-	-	-
General governments	-	-	-	-	-	-	-	-
Credit institutions	-	-	-	-	-	-	-	-
Other financial corporations	14	38	38	38	-	(18)	30	19
Non-financial corporations	1,233	933	831	897	(101)	(393)	1,399	491
Households	1,886	967	612	967	(146)	(446)	1,860	466
Debt Securities	-	-	-	-	-	-	-	-
Loan commitments given	-	-	-	-	-	-	-	-
Total	3,133	1,938	1,481	1,902	(247)	(857)	3,289	976

Credit Risk

The following template provides an overview of credit quality of non performing exposures as at 31 December 2020 and 30 June 2020.

Table 20: Credit quality of performing and non-performing exposures by past due days

	31 December 2020											
	Gross carrying amount/nominal amoumt											
	Performing exposures			Non-performing exposures								
		Not past due or Past due <= 30 days	Past due >30 days <= 90 days		Unlikely to pay that are not past-due or past-due <=90 days	Past due > 90 days <=180 days	Past due > 180 days <=1 year	Past due > 1 year <=2 year	Past due > 2 year <=5 year	Past due > 5 year < = 7 year	Past due > 7 years	Of which defaulted
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cash balances at central banks and other demand deposits	**6,249**	6,249	-	-	-	-	-	-	-	-	-	-
Loans and advances	**38,508**	**38,248**	**260**	**5,762**	**1,392**	**188**	**219**	**760**	**992**	**770**	**1,441**	**5,269**
Central banks	-	-	-	-	-	-	-	-	-	-	-	-
General governments	41	41	-	2	-	-	-	-	-	1	1	2
Credit institutions	1,711	1,711	-	-	-	-	-	-	-	-	-	-
Other financial corporations [(1)]	6,154	6,154	-	107	21	14	-	42	8	-	22	108
Non-financial corporations [(2)]	17,977	17,870	107	3,084	727	91	114	434	600	316	802	2,935
of which SMEs [(2)]	7,434	7,340	94	2,604	543	82	110	382	490	301	696	2,476
Households	12,625	12,472	153	2,569	644	83	105	284	384	453	616	2,224
Debt Securities	**8,257**	**8,257**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Central banks	-	-	-	-	-	-	-	-	-	-	-	-
General governments	6,700	6,700	-	-	-	-	-	-	-	-	-	-
Credit institutions	753	753	-	-	-	-	-	-	-	-	-	-
Other financial corporations	139	139	-	-	-	-	-	-	-	-	-	-
Non-financial corporations	665	665	-	-	-	-	-	-	-	-	-	-
Off-balance sheet exposures	**5,898**			**56**								**55**
Central banks	-			-								-
General governments	256			19								19
Credit institutions	80			-								-
Other financial corporations	180			-								-
Non-financial corporations	3,313			36								35
Households	2,069			1								1
Total	**58,912**	**52,754**	**260**	**5,818**	**1,392**	**188**	**219**	**760**	**992**	**770**	**1,441**	**5,324**

Credit Risk

	30 June 2020											
	Gross carrying amount/nominal amoumt											
	Performing exposures			Non-performing exposures								
	€ million	Not past due or Past due <= 30 days € million	Past due >30 days <= 90 days € million	€ million	Unlikely to pay that are not past-due or past-due <=90 days € million	Past due > 90 days <=180 days € million	Past due > 180 days <=1 year € million	Past due > 1 year <=2 year € million	Past due > 2 year <=5 year € million	Past due > 5 year < = 7 year € million	Past due > 7 years € million	**Of which defaulted € million**
Cash balances at central banks and other demand deposits	3,560	3,560	-	-	-	-	-	-	-	-	-	-
Loans and advances	35,905	35,464	441	6,232	1,347	297	327	811	1,004	1,057	1,388	5,688
Central banks	-	-	-	-	-	-	-	-	-	-	-	-
General governments	45	45	-	2	-	-	-	-	-	1	1	2
Credit institutions	2,590	2,590	-	-	-	-	-	-	-	-	-	-
Other financial corporations	3,500	3,487	13	110	17	15	16	27	8	22	5	109
Non-financial corporations	17,241	17,076	165	3,263	659	151	159	449	611	422	812	3,144
of which SMEs	6,968	6,851	117	2,777	504	136	112	411	519	331	765	2,679
Households	12,529	12,266	263	2,857	671	131	152	335	385	612	570	2,433
Debt Securities	9,704	9,704	-	-	-	-	-	-	-	-	-	-
Central banks	-	-	-	-	-	-	-	-	-	-	-	-
General governments	8,256	8,256	-	-	-	-	-	-	-	-	-	-
Credit institutions	693	693	-	-	-	-	-	-	-	-	-	-
Other financial corporations	118	118	-	-	-	-	-	-	-	-	-	-
Non-financial corporations	637	637	-	-	-	-	-	-	-	-	-	-
Off-balance sheet exposures	5,610			52								52
Central banks	-			-								-
General governments	261			19								19
Credit institutions	81			-								-
Other financial corporations	100			-								-
Non-financial corporations	3,188			32								32
Households	1,980			1								1
Total	54,779	48,728	441	6,284	1,347	297	327	811	1,004	1,057	1,388	5,740

(1) The increase in Other Financial corporations compared to 30 June 2020 is mainly due to Cairo notes retained by the Bank.

(2) The increase in Non-Financial Corporations and of which SMEs respectively compared to 30 June 2020 is mainly due to new disbursements in 2nd H 2020 under the actions of the Hellenic Development Bank (HDB) to face COVID-19 Pandemic [i.e. COVID-19 Loan Guarantee Fund and the Entrepreneurship Fund (TEPIX)].

Credit Risk

The following templates provide an overview of the credit quality of non-performing exposures and related impairments, provisions and valuation adjustments by portfolio and exposure class, by geography and by industry as at 31 December 2020 and 30 June 2020.

Table 21: Performing and non-performing exposures and related provisions

	31 December 2020														
	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions							Collaterals and financial guarantees received	
	Performing exposures			Non-performing exposures			Performing exposures - Accumulated impairment and provisions			Non-performing exposures - Accumulated impairment, accumulated negative changes in fair value due credit risk and provisions			Accumulated partial write-off	On performing exposures	On non - performing exposures
		of which: stage 1	of which: stage 2		of which: stage 2	of which: stage 3		of which: stage 1	of which: stage 2		of which: stage 2	of which: stage 3			
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cash balances at central banks and other demand deposits	**6,249**	**6,249**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**
Loans and advances	**38,508**	**32,065**	**6,443**	**5,762**	**-**	**5,762**	**(622)**	**(183)**	**(439)**	**(2,887)**	**-**	**(2,887)**	**(2,138)**	**23,460**	**2,642**
Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General governments	41	24	17	2	-	2	(2)	(1)	(1)	(1)	-	(1)	-	2	-
Credit institutions	1,711	1,711	-	-	-	-	-	-	-	-	-	-	-	-	-
Other financial corporations [1]	6,154	6,109	45	107	-	107	(10)	(9)	(1)	(75)	-	(75)	(224)	4,326	32
Non-financial corporations	17,977	14,834	3,143	3,084	-	3,084	(332)	(108)	(224)	(1,502)	-	(1,502)	(1,317)	10,241	1,460
of which SMEs	7,434	5,280	2,154	2,604	-	2,604	(238)	(58)	(180)	(1,295)	-	(1,295)	(1,035)	4,969	1,209
Households	12,625	9,387	3,238	2,569	-	2,569	(278)	(65)	(213)	(1,309)	-	(1,309)	(597)	8,891	1,150
Debt Securities	**8,257**	**8,246**	**11**	**-**	**-**	**-**	**(15)**	**(14)**	**(1)**	**-**	**-**	**-**	**-**	**-**	**-**
Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General governments	6,700	6,700	-	-	-	-	(6)	(6)	-	-	-	-	-	-	-
Credit institutions	753	753	-	-	-	-	(3)	(3)	-	-	-	-	-	-	-
Other financial corporations	139	139	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-financial corporations	665	654	11	-	-	-	(6)	(5)	(1)	-	-	-	-	-	-
Off-balance sheet exposures	**5,898**	**5,479**	**419**	**56**	**-**	**56**	**(77)**	**(70)**	**(7)**	**(27)**	**-**	**(27)**		**1,035**	**10**
Central banks	-	-	-	-	-	-	-	-	-	-	-	-		-	-
General governments	256	256	-	19	-	19	(38)	(38)	-	(18)	-	(18)		-	-
Credit institutions	80	80	-	-	-	-	-	-	-	-	-	-		-	-
Other financial corporations	180	160	20	-	-	-	-	-	-	-	-	-		37	-
Non-financial corporations	3,313	3,102	211	36	-	36	(15)	(11)	(4)	(9)	-	(9)		937	10
Households	2,069	1,881	188	1	-	1	(24)	(21)	(3)	-	-	-		61	-
Total	**58,912**	**52,039**	**6,873**	**5,818**	**-**	**5,818**	**(714)**	**(267)**	**(447)**	**(2,914)**	**-**	**(2,914)**	**(2,138)**	**24,495**	**2,652**

Credit Risk

	30 June 2020															
	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collaterals and financial guarantees received	
	Performing exposures			Non-performing exposures			Performing exposures - Accumulated impairment and provisions			Non-performing exposures - Accumulated impairment, accumulated negative changes in fair value due credit risk and provisions				On performing exposures	On non - performing exposures
		of which: stage 1	of which: stage 2		of which: stage 2	of which: stage 3		of which: stage 1	of which: stage 2		of which: stage 2	of which: stage 3			
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Cash balances at central banks and other demand deposits	3,560	3,560	-	-	-	-	-	-	-	-	-	-		-	-
Loans and advances	35,905	29,816	6,089	6,232	-	6,232	(557)	(152)	(405)	(3,176)	-	(3,176)	(1,762)	20,746	2,736
Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General governments	45	27	18	2	-	2	(2)	(1)	(1)	(1)	-	(1)	-	2	-
Credit institutions	2,590	2,590	-	-	-	-	(1)	(1)	-	-	-	-	-	-	-
Other financial corporations	3,500	3,450	50	110	-	110	(5)	(4)	(1)	(77)	-	(77)	(219)	1,981	28
Non-financial corporations	17,241	14,747	2,494	3,263	-	3,263	(262)	(98)	(164)	(1,639)	-	(1,639)	(1,138)	9,923	1,463
Of which: SMEs	6,968	5,253	1,715	2,777	-	2,777	(193)	(63)	(130)	(1,431)	-	(1,431)	(945)	4,722	1,208
Households	12,529	9,002	3,527	2,857	-	2,857	(287)	(48)	(239)	(1,459)	-	(1,459)	(405)	8,840	1,245
Debt Securities	9,704	9,693	11	-	-	-	(18)	(17)	(1)	-	-	-	-	-	-
Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General governments	8,256	8,256	-	-	-	-	(9)	(9)	-	-	-	-	-	-	-
Credit institutions	693	693	-	-	-	-	(5)	(5)	-	-	-	-	-	-	-
Other financial corporations	118	118	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-financial corporations	637	626	11	-	-	-	(4)	(3)	(1)	-	-	-	-	-	-
Off-balance sheet exposures	5,610	5,240	370	52	-	52	(70)	(67)	(3)	(26)	-	(26)		898	5
Central banks	-	-	-	-	-	-	-	-	-	-	-	-		-	-
General governments	261	261	-	19	-	19	(39)	(39)	-	(18)	-	(18)		-	-
Credit institutions	81	81	-	-	-	-	-	-	-	-	-	-		-	-
Other financial corporations	100	79	21	-	-	-	-	-	-	-	-	-		46	-
Non-financial corporations	3,188	3,060	128	32	-	32	(11)	(10)	(1)	(8)	-	(8)		802	5
Households	1,980	1,759	221	1	-	1	(20)	(18)	(2)	-	-	-		50	-
Total	54,779	48,309	6,470	6,284	-	6,284	(645)	(236)	(409)	(3,202)	-	(3,202)	(1,762)	21,644	2,741

[(1)] The increase in Other Financial corporations compared to 30 June 2020 is mainly due to Cairo notes retained by the Bank.

Table 22: Quality of Non-performing exposures by geography

	31 December 2020						
	Gross carrying/nominal amount				Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		of which: non-performing		of which: subject to impairment			
			of which defaulted				
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
On balance sheet exposures	**58,776**	**5,762**	**5,269**	**58,714**	**(3,493)**		**(31)**
Greece	35,531	5,083	4,677	35,517	(3,140)		(14)
Romania	486	144	130	465	(30)		(18)
Bulgaria	5,143	274	201	5,143	(136)		-
United Kingdom	2,002	2	1	2,002	(1)		-
Cyprus	3,479	113	113	3,479	(86)		-
Other countries	12,135	146	147	12,108	(100)		1
Off balance sheet exposures	**5,954**	**56**	**55**			**(104)**	
Greece	4,026	52	51			(100)	
Romania	-	-	-			-	
Bulgaria	900	3	3			-	
United Kingdom	47	-	-			-	
Cyprus	537	1	1			(3)	
Other countries	444	-	-			(1)	
Total	**64,730**	**5,818**	**5,324**	**58,714**	**(3,493)**	**(104)**	**(31)**

Credit Risk

	30 June 2020						
	Gross carrying/nominal amount						
		of which: non-performing		of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on non-performing exposures
			of which defaulted				
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
On balance sheet exposures	55,401	6,232	5,754	55,341	(3,720)		(31)
Greece	35,127	5,478	5,077	35,113	(3,304)		(14)
Romania	120	-	137	120	-		-
Bulgaria	4,428	300	238	4,428	(164)		-
United Kingdom	182	-	2	182	(1)		-
Cyprus	3,203	114	114	3,203	(87)		-
Other countries	12,341	340	186	12,295	(164)		(17)
Off balance sheet exposures	5,662	52	52			(96)	
Greece	3,941	49	49			(95)	
Romania	1	-	-			-	
Bulgaria	818	2	2			-	
United Kingdom	22	-	-			-	
Cyprus	432	1	1			(1)	
Other countries	448	-	-			-	
Total	61,063	6,284	5,806	55,341	(3,720)	(96)	(31)

Table 23: Credit quality of loans and advances by industry

	31 December 2020					
	Gross carrying/nominal amount					
		of which: non-performing		of which loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
			of which defaulted			
	€ million	€ million	€ million	€ million	€ million	€ million
Agriculture, forestry and fishing	341	42	40	341	(34)	-
Mining and quarrying	192	14	14	192	(11)	-
Manufacturing	3,859	415	403	3,859	(262)	-
Electricity, gas, steam and air conditioning supply	749	6	6	749	(6)	-
Water supply	56	3	3	56	(2)	-
Construction	1,215	315	290	1,215	(164)	-
Wholesale and retail trade	5,053	1,041	984	5,031	(623)	(14)
Transport and storage	2,734	177	173	2,725	(122)	-
Accommodation and food service activities	2,411	325	312	2,411	(145)	-
Information and communication	279	47	46	279	(46)	-
Financial and insurance activities	14	5	5	14	(3)	-
Real estate activities	1,411	223	221	1,390	(89)	(17)
Professional, scientific and technical activities	793	276	259	793	(164)	-
Administrative and support service activities	271	29	28	271	(22)	-
Public administration and defense, compulsory social security	2	1	1	2	(1)	-
Education	47	18	17	47	(9)	-
Human health services and social work activities	613	31	29	613	(25)	-
Arts, entertainment and recreation	665	21	21	665	(14)	-
Other services	356	95	83	356	(61)	-
Total	**21,061**	**3,084**	**2,935**	**21,009**	**(1,803)**	**(31)**

	30 June 2020					
	Gross carrying/nominal amount					
		of which: non-performing		of which loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
			of which defaulted			
	€ million	€ million	€ million	€ million	€ million	€ million
Agriculture, forestry and fishing	327	43	41	327	(32)	-
Mining and quarrying	202	15	15	202	(12)	-
Manufacturing	3,796	447	436	3,796	(273)	-
Electricity, gas, steam and air conditioning supply	756	20	20	756	(16)	-
Water supply	51	4	3	51	(2)	-
Construction	1,256	349	333	1,256	(180)	-
Wholesale and retail trade	4,836	1,125	1,074	4,815	(664)	(14)
Transport and storage	2,654	194	190	2,644	(128)	-
Accommodation and food service activities	2,088	287	276	2,088	(123)	-
Information and communication	275	49	48	275	(38)	-
Financial and insurance activities	40	5	5	40	(3)	-
Real estate activities	1,448	234	233	1,426	(97)	(17)
Professional, scientific and technical activities	820	290	277	820	(169)	-
Administrative and support service activities	251	29	29	251	(21)	-
Public administration and defense, compulsory social security	2	-	-	2	-	-
Education	45	18	17	45	(8)	-
Human health services and social work activities	476	33	32	476	(25)	-
Arts, entertainment and recreation	868	22	22	868	(14)	-
Other services	313	99	93	315	(65)	-
Total	20,504	3,263	3,144	20,453	(1,870)	(31)

[(1)] *Presents credit quality of loans and advances to non-financial corporations.*

The following table provides an overview of the credit quality of loans and advances to non-financial corporations as at 31 December 2020 and 2019.

Table 24: Quality of forbearance

	31 December 2020	31 December 2019
	Gross carrying amount of forborne exposures	Gross carrying amount of forborne exposures
	€ million	€ million
Loans and advances that have been forborne more than twice	1.174	1.684
Non-performing forborne loans and advances that failed to meet the non-performing exit criteria	533	1.813

Credit Risk

The following table provides an analysis of collateral valuation and other information on loans and advances as at 31 December 2020 and 31 December 2019.

Table 25: Collateral valuation - Loans and advances

	31 December 2020											
	Loans and advances											
		Performing		Non Performing								
					Unlikely to pay that are not past due or past due <=90 days	Past due > 90 days						
			of which past due > 30 days <= 90 days				of which Past due > 90 days <= 180 days	of which Past due > 180 days <= 1 year	of which Past due > 1 year <= 2 years	of which Past due > 2 years <= 5 years	of which Past due > 5 years <= 7 years	of which Past due > 7 years
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Gross carrying amount	**44,270**	**38,508**	**260**	**5,762**	**1,392**	**4,370**	**188**	**219**	**760**	**992**	**770**	**1,441**
Of which: secured	34,272	29,907	178	4,365	1,125	3,240	129	157	569	768	612	1,005
Of which: secured with immovable property	18,381	14,802	164	3,579	929	2,650	109	125	509	607	529	771
of which: instruments with LTV higher than 60% and lower or equal to 80%	3,573	3,147		426	127	299						
of which: instruments with LTV higher than 80% and lower or equal to 100%	4,106	3,177		929	245	684						
of which: instruments with LTV higher than 100%	6,358	4,346		2,012	443	1,569						
Accumulated impairment for secured assets	**(2,045)**	**(376)**	**(10)**	**(1,669)**	**(316)**	**(1,353)**	**(40)**	**(54)**	**(232)**	**(362)**	**(212)**	**(452)**
Collateral												
of which value capped at the value of exposure	25,219	22,660	154	2,559	775	1,784	86	101	332	386	358	521
of which immovable property	15,951	13,583	132	2,368	682	1,686	76	97	312	371	347	483
Of which value above the cap	18,908	16,461	112	2,447	640	1,807	64	128	307	416	243	649
of which immovable property	10,602	8,979	101	1,623	476	1,147	49	51	194	215	197	441
Financial guarantees received	**882**	**800**	**4**	**82**	**11**	**71**	**-**	**-**	**3**	**9**	**31**	**28**
Accumulated partial write-off	**(2,138)**	**(15)**	**(2)**	**(2,123)**	**(34)**	**(2,089)**	**(111)**	**(6)**	**(449)**	**(565)**	**(363)**	**(595)**

	31 December 2019											
	Loans and advances											
		Performing		Non Performing								
						Past due > 90 days						
			of which past due > 30 days <= 90 days		Unlikely to pay that are not past due or past due <=90 days		of which Past due > 90 days <= 180 days	of which Past due > 180 days <= 1 year	of which Past due > 1 year <= 2 years	of which Past due > 2 years <= 5 years	of which Past due > 5 years <= 7 years	of which Past due > 7 years
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Gross carrying amount	51,751	38,720	604	13,031	2,474	10,557	397	336	1,978	2,343	2,592	2,911
Of which: secured	32,657	22,957	473	9,700	2,006	7,694	286	244	1,268	1,864	1,956	2,076
Of which: secured with immovable property	20,651	12,217	-	8,434	1,674	6,760	-	-	-	-	-	-
of which: instruments with LTV higher than 60% and lower or equal to 80%	3,810	3,084		726	230	496						
of which: instruments with LTV higher than 80% and lower or equal to 100%	4,964	3,273		1,691	382	1,309						
of which: instruments with LTV higher than 100%	11,877	5,860		6,017	1,062	4,955						
Accumulated impairment for secured assets	(4,332)	(339)	-	(3,993)	(615)	(3,378)	(92)	(86)	(498)	(847)	(737)	(1,118)
Collateral												
of which value capped at the value of exposure	25,696	20,339	426	5,357	1,292	4,065	185	152	732	961	1,150	885
of which immovable property	18,697	13,725	328	4,972	1,123	3,849	166	139	658	924	1,130	832
Financial guarantees received	474	356	5	118	9	109	1	1	6	21	54	26
Accumulated partial write-off [1]	-	-	-	-	-	-	-	-	-	-	-	-

[1] The relevant information for the year end 2019 has not to be provided.
[2] The decrease of non performing loans compared to 31 December 2019 is mainly due to Cairo transaction.

The following table provides an overview of the movements (inflows and outflows) of non performing loans and advances as at 31 December 2020 and 31 December 2019.

Table 26: Changes in the stock of non-performing loans and advances

	31 December 2020		31 December 2019	
	Gross carrying amount € million	Related net acumulated recoveries € million	Gross carrying amount € million	Related net acumulated recoveries € million
Initial stock of non-performing loans and advances	13,031		16,734	
Inflows to non performing portfolios	1,132		1,758	
Outflows from non performing portfolios	(8,401)		(5,461)	
Outflow to performing portfolio	(621)		(1,457)	
Outflow due to loan repayment, partial or total	(264)		(420)	
Outflow due to collateral liquidations	(141)	47	(222)	(69)
Outflow due to taking possession of collateral	(26)	25	(156)	(85)
Outflow due to sale of instruments	(7)	7	(145)	(33)
Outflow due to risk transfers	(2,284)	-	(1,759)	-
Outflows due to write-off	(454)		(847)	
Outflow due to Other Situations	(196)		(447)	
Outflow due to reclassification as held for sale	(4,408)		(8)	
Final stock of non-performing loans and advances	**5,762**		13,031	

[1] The decrease of non performing loans compared to 31 December 2019 is mainly due to Cairo transaction

The following table provides an overview of foreclosed assets obtained from non performing exposures as at 31 December 2020 and 31 December 2019.

Table 27: Collateral obtained by taking possession and execution processes

	31 December 2020 Collateral obtained by taking possession		30 June 2020 Collateral obtained by taking possession	
	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million
Property Plant and Equipment (PP&E)	-	-	-	-
Other than Property Plant and Equipment	683	(107)	673	(104)
Residential immovable property	246	(41)	245	(40)
Commercial Immovable property	424	(67)	413	(63)
Movable property (auto, shipping, etc.)	-	-	-	-
Equity and debt instruments	13	-	14	-
Other	-	-	-	-
Total	**683**	**(107)**	673	(104)

Credit Risk

The following table provides an overview of collateral obtained by taking possession by type, by time since date of foreclosure as at 31 December 2020 and 31 December 2019.

Table 28: Collateral obtained by taking possession and execution processes – Vintage breakdown

	31 December 2020											
	Debt balance reduction		Total collateral obtained by taking possession									
					Foreclosed <= 2 years		Foreclosed >= 2 years <= 5 years		Foreclosed > 5 years		Of which: Non-current assets held-for-sale	
	Gross carrying amount € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million
Collateral obtained by taking possession classified as Property Plant and Equipment (PP&E)	-	-	-	-								
Collateral obtained by taking possession other than classified Property Plant and Equipment	197	(66)	683	(107)	382	(15)	53	(4)	249	(88)	11	8
Residential immovable property	4	-	246	(41)	125	(6)	11	(1)	109	(34)	4	2
Commercial Immovable property	192	(66)	424	(67)	250	(10)	36	(3)	138	(54)	7	6
Movable property (auto, shipping, etc.)	-	-	-	-	-	-	-	-	-	-	-	-
Equity and debt instruments	-	-	13	-	7	-	6	-	1	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total	**197**	**(66)**	**683**	**(107)**	**382**	**(15)**	**53**	**(4)**	**249**	**(88)**	**11**	**8**

	31 December 2019											
	Debt balance reduction		Total collateral obtained by taking possession									
					Foreclosed <= 2 years		Foreclosed >= 2 years <= 5 years		Foreclosed > 5 years		Of which: Non-current assets held-for-sale	
	Gross carrying amount € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million	Value at initial recognition € million	Accumulated negative changes € million
Collateral obtained by taking possession classified as Property Plant and Equipment (PP&E)	-	-	-	-								
Collateral obtained by taking possession other than classified Property Plant and Equipment	-	-	771	(212)	359	(16)	41	(6)	370	(191)	9	(2)
Residential immovable property	-	-	241	(56)	94	(3)	14	(2)	132	(52)	6	(2)
Commercial Immovable property	-	-	481	(155)	244	(13)	27	(4)	210	(138)	3	-
Movable property (auto, shipping, etc.)	-	-	-	-	-	-	-	-	-	-	-	-
Equity and debt instruments	-	-	22	-	21	-	-	-	1	-	-	-
Other	-	-	27	(1)	-	-	-	-	27	(1)	-	-
Total	-	-	771	(212)	359	(16)	41	(6)	370	(191)	9	(2)

Credit Risk

In April 2020, the EBA published Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis which clarifies a set of criteria and conditions under which such measures do not trigger forbearance classification of loans and advances, and sets out their further prudential treatment in this context.

The following table provides an overview of the credit quality of loans and advances subject to moratoria on loan repayments applied in the light of the COVID-19 crisis as at 31 December 2020 and 30 June 2020.

Table 29: Information on loans and advances subject to legislative and non-legislative moratoria

	31 December 2020						
	Gross carrying amount						
		Performing			Non Performing		
			Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Loans and advances subject to moratorium	**8,194**	**7,501**	**1,761**	**3,244**	**693**	**574**	**615**
of which: Households	3,569	3,239	995	1,707	330	291	294
of which: Collateralised by residential immovable property	2,491	2,285	761	1,233	206	190	194
of which: Non-financial corporations	4,440	4,098	762	1,514	342	263	300
of which: Small and Medium-sized Enterprises	2,927	2,623	608	1,218	304	252	266
of which: Collateralised by commercial immovable property	2,523	2,305	459	939	218	175	199

	31 December 2020							
	Accumulated impairment, accumulated negative changes in fair value due to credit risk							Gross carrying amount
		Performing			Non Performing			
			Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days	Inflows to non-performing exposures
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Loans and advances subject to moratorium	**(585)**	**(304)**	**(178)**	**(263)**	**(281)**	**(245)**	**(242)**	**35**
of which: Households	(301)	(148)	(90)	(135)	(153)	(134)	(133)	16
of which: Collateralised by residential immovable property	(140)	(73)	(49)	(68)	(67)	(63)	(63)	12
of which: Non-financial corporations	(275)	(155)	(87)	(128)	(120)	(104)	(102)	19
of which: Small and Medium-sized Enterprises	(251)	(133)	(78)	(116)	(118)	(102)	(100)	19
of which: Collateralised by commercial immovable property	(145)	(76)	(45)	(65)	(69)	(64)	(62)	7

Credit Risk

	30 June 2020						
	Gross carrying amount						
		Performing			Non Performing		
			Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Loans and advances subject to moratorium	7,158	6,569	1,570	2,532	589	503	547
of which: Households	3,376	3,032	923	1,488	344	315	322
of which: Collateralised by residential immovable property	2,302	2,082	711	1,079	220	211	216
of which: Non-financial corporations	3,599	3,371	633	1,031	228	171	209
of which: Small and Medium-sized Enterprises	2,834	2,625	536	869	209	167	190
of which: Collateralised by commercial immovable property	2,095	1,943	374	641	152	106	142

	30 June 2020							
	Accumulated impairment, accumulated negative changes in fair value due to credit risk							Gross carrying amount
		Performing			Non Performing			
			Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days	Inflows to non-performing exposures
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Loans and advances subject to moratorium	(472)	(208)	(137)	(182)	(264)	(226)	(240)	8
of which: Households	(270)	(115)	(81)	(108)	(155)	(140)	(142)	1
of which: Collateralised by residential immovable property	(133)	(63)	(50)	(60)	(70)	(68)	(70)	1
of which: Non-financial corporations	(194)	(93)	(55)	(74)	(101)	(79)	(90)	7
of which: Small and Medium-sized Enterprises	(182)	(81)	(52)	(67)	(101)	(79)	(90)	6
of which: Collateralised by commercial immovable property	(108)	(49)	(28)	(39)	(59)	(43)	(54)	2

Credit Risk

The following table provides an overview of the volume of loans and advances subject to legislative and non-legislative moratoria in accordance with EBA/GL/2020/02 by residual maturity of these moratoria as at 31 December 2020 and 30 June 2020.

Table 30: Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria

	31 Deccember 2020								
	Number of obligors	Gross carrying amount							
			Of which: legislative moratoria	Of which: expired	Residual maturity of moratoria				
					<= 3 months	> 3 months <= 6 months	> 6 months <= 9 months	> 9 months <= 12 months	> 1 year
		€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Loans and advances for which moratorium was offered	**222,998**	**9,161**							
Loans and advances subject to moratorium (granted)	**206,219**	**8,194**	1,701	5,289	2,097	608	118	80	2
of which: Households		3,569	532	3,346	214	1	8	-	-
of which: Collateralised by residential immovable property		2,491	180	2,351	131	1	8	-	-
of which: Non-financial corporations		4,441	991	1,938	1,704	606	111	80	2
of which: Small and Medium-sized Enterprises		2,928	723	1,559	1,023	213	109	22	2
of which: Collateralised by commercial immovable property		2,523	690	1,004	1,072	305	75	66	1

	30 June 2020								
	Number of obligors	Gross carrying amount							
			Of which: legislative moratoria	Of which: expired	Residual maturity of moratoria				
					<= 3 months	> 3 months <= 6 months	> 6 months <= 9 months	> 9 months <= 12 months	> 1 year
		€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Loans and advances for which moratorium was offered	355,550	8,891							
Loans and advances subject to moratorium (granted)	329,499	7,158	1,784	-	3,467	2,025	1,379	154	133
of which: Households		3,376	592	-	3,144	104	128	-	-
of which: Collateralised by residential immovable property		2,302	180	-	2,145	66	91	-	-
of which: Non-financial corporations		3,598	1,008	-	323	1,921	1,067	154	133
of which: Small and Medium-sized Enterprises		2,833	823	-	228	1,589	838	75	103
of which: Collateralised by commercial immovable property		2,095	689	-	124	975	757	121	118

Credit Risk

The following table provides an overview of the stock of newly originated loans and advances subject to public guarantee schemes introduced in response to COVID-19 crisis as at 31 December 2020 and 30 June 2020.

Table 31: Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis

	31 December 2020			
	Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
		of which: forborne	Public guarantees received	Inflows to non-performing exposures
	€ million	€ million	€ million	€ million
Newly originated loans and advances subject to public guarantee schemes	**1.215**	**-**	**233**	**1**
of which: Households	-			-
of which: Collateralised by residential immovable property	-			-
of which: Non-financial corporations	1.215	-	233	1
of which: Small and Medium-sized Enterprises	779			1
of which: Collateralised by commercial immovable property	6			-

	30 June 2020			
	Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
		of which: forborne	Public guarantees received	Inflows to non-performing exposures
	€ million	€ million	€ million	€ million
Newly originated loans and advances subject to public guarantee schemes	45	-	36	-
of which: Households	-			-
of which: Collateralised by residential immovable property	-			-
of which: Non-financial corporations	45	-	36	-
of which: Small and Medium-sized Enterprises	45			-
of which: Collateralised by commercial immovable property	3			-

4.6 Standardised approach

The Group applies the Standardised approach for all subsidiaries exposures and for a part of the Bank's retail loans. Moreover, the Standardised approach is applied for credit exposures with sovereign and institutional counterparties, as well as with corporate bond issuers, for which a permanent exemption has been granted by the BoG.

Credit ratings are retrieved from External Credit Assessment Institutions (ECAIs), such as Moody's or Standard & Poor's or Fitch. In the cases where more than one rating is available, the second better rating is used.

ECAIs are not used for loans' portfolios directly, but only in cases when they are guaranteed by central governments or institutions (risk substitution). In such a case the ECAIs used are the same as the ones described above.

In the case of corporate bond issues, the corresponding issue rating by these agencies is used. In case that an issue rating is not available, rating for other issues by the same issuer can be used, if: (a) the corporate bond under review has equal or better seniority with these rated bonds or (b) the resulting risk weight is lower than the applicable risk weight of unrated bonds.

The table below presents Standardised exposures on two different basis (before CCF and CRM and after CCF and CRM) as at 31 December 2020 and 30 June 2020.

Table 32: EU CR4 – Standardised approach – Credit risk exposure and CRM effects

	31 December 2020					
	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
Exposure classes	On Balance sheet amount € million	Off Balance sheet amount € million	On Balance sheet amount € million	Off Balance sheet amount € million	RWAs € million	RWA density %
Central governments or central banks	17,002	-	18,008	-	5,203	29%
Regional government or local authorities	38	1	35	-	8	23%
Public sector entities	708	-	708	-	708	100%
Multilateral development banks	73	-	226	-	-	0%
International organisations	171	-	171	-	-	0%
Institutions [(3)]	3,707	90	3,792	169	638	16%
Corporates	5,071	1,142	4,304	261	3,998	88%
Retail	2,537	809	2,404	138	1,826	72%
Secured by mortgages on immovable property	3,845	21	3,846	15	1,384	36%
Exposures in default	907	3	899	2	934	104%
Higher-risk categories	207	93	203	14	326	150%
Covered bonds	376	-	376	-	68	18%
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	0%
Collective investment undertakings	-	-	-	-	-	0%
Equity	190	-	190	-	475	250%
Other items	4,184	-	4,184	-	3,524	84%
Total	**39,016**	**2,159**	**39,346**	**599**	**19,092**	**48%**

Credit Risk

Exposure classes	30 June 2020					
	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On Balance sheet amount € million	Off Balance sheet amount € million	On Balance sheet amount € million	Off Balance sheet amount € million	RWAs € million	RWA density %
Central governments or central banks	15,900	-	16,217	-	5,183	32%
Regional government or local authorities	43	1	39	-	9	23%
Public sector entities	708	-	708	-	394	56%
Multilateral development banks	93	-	93	-	-	0%
International organisations	185	-	185	-	-	0%
Institutions	4,454	97	4,542	73	668	14%
Corporates	4,968	1,050	4,200	271	4,044	90%
Retail	2,511	751	2,389	129	1,814	72%
Secured by mortgages on immovable property	3,922	12	3,922	9	1,410	36%
Exposures in default	1,008	3	1,003	2	1,040	103%
Higher-risk categories	210	78	207	7	321	150%
Covered bonds	302	-	302	-	57	19%
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	0%
Collective investment undertakings	-	-	-	-	-	0%
Equity	200	-	200	-	499	250%
Other items	4,223	-	4,224	-	3,583	85%
Total	38,727	1,992	38,231	491	19,022	49%

[1] *Exposures with counterparties are not included in the table.*
[2] *The table above does not include securitisations.*

Table 33: EU CR5 – Standardised approach

The table below presents the credit exposures post conversion factor and post risk mitigation techniques (i.e. collaterals), broken down to different credit quality steps as at 31 December 2020 and 30 June 2020:

Exposure classes	Supervisory risk weightings - 31 December 2020																	
	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	deducted	Total	Of which unrated
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Central governments or central banks	13,321	-	-	-	194	-	188	-	-	3,795	-	510	-	-	-	-	18,008	4,409
Regional government or local authorities	-	-	-	-	34	-	-	-	-	1	-	-	-	-	-	-	35	35
Public sector entities	-	-	-	-	-	-	-	-	-	708	-	-	-	-	-	-	708	708
Multilateral development banks	226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	226	-
International organisations	171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	171	-
Institutions	2,200	310	-	-	914	-	328	-	-	57	152	-	-	-	-	-	3,961	592
Corporates	-	-	-	-	16	-	101	-	-	4,444	4	-	-	-	-	-	4,565	4,106
Retail	-	-	-	-	-	-	-	-	2,542	-	-	-	-	-	-	-	2,542	2,542
Secured by mortgages on immovable property	-	-	-	-	-	3,335	526	-	-	-	-	-	-	-		-	3,861	3,861
Exposures in default	-	-	-	-	-	-	-	-	-	833	68	-	-	-	-	-	901	900
Higher-risk categories	-	-	-	-	-	-	-	-	-	-	217	-	-	-	-	-	217	217
Covered bonds	-	-	-	276	31	-	69	-	-		-	-	-	-	-	-	376	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investment undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity	-	-	-	-	-	-	-	-	-	-	-	190	-		-	-	190	190
Other items	640	-	-	-	23	-	-	-	-	3,521	-	-	-	-	-	-	4,184	4,184
Total	**16,558**	**310**	**-**	**276**	**1,212**	**3,335**	**1,212**	**-**	**2,542**	**13,359**	**441**	**700**	**-**	**-**	**-**	**-**	**39,945**	**21,744**

Credit Risk

Exposure classes	Supervisory risk weightings - 30 June 2020																	
	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	deducted	Total	Of which unrated
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Central governments or central banks	11.568	-	-	-	173	-	140	-	-	3.841	-	495	-	-	-	-	16.217	4.441
Regional government or local authorities	-	-	-	-	38	-	-	-	-	1	-	-	-	-	-	-	39	39
Public sector entities	-	-	-	-	392	-	-	-	-	316	-	-	-	-	-	-	708	708
Multilateral development banks	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93	-
International organisations	185	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	-
Institutions	2.491	291	-	-	1.304	-	361	-	-	63	105	-	-	-	-	-	4.615	529
Corporates	-	-	-	-	16	-	98	-	-	4.353	4	-	-	-	-	-	4.471	4.050
Retail	-	-	-	-	-	-	-	-	2.518	-	-	-	-	-	-	-	2.518	2.518
Secured by mortgages on immovable property	-	-	-	-	-	3.414	517	-	-	-	-	-	-	-		-	3.931	3.931
Exposures in default	-	-	-	-	-	-	-	-	-	936	69	-	-	-	-	-	1.005	1.005
Higher-risk categories	-	-	-	-	-	-	-	-	-	-	214	-	-	-	-	-	214	214
Covered bonds	-	-	-	196	53	-	53	-	-		-	-	-	-	-	-	302	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investment undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity	-	-	-	-	-	-	-	-	-	-	-	200	-		-	-	200	200
Other items	612	-	-	-	33	-	-	-	-	3.579	-	-	-	-	-	-	4.224	4.224
Total	14.949	291	-	196	2.009	3.414	1.169	-	2.518	13.089	392	695	-	-	-	-	38.722	23.715

[(1)] *Exposures with counterparties are not included in the table.*

Credit exposures shown in the above table do not include goodwill, intangible assets and deferred tax which are deducted from regulatory own funds.

4.7 Internal Ratings Based (IRB) approach

4.7.1 Exposures subject to IRB approach

Eurobank Group (the "Bank" or the "Group") first applied the Basel II framework under the Standardised approach in January 2007 and included the respective risk asset ratio figures in its published financial statements. Until that date the Group had been applying the Basel I rules.

In June 2008, the Group received the approval of BoG to use the Internal Ratings Based (IRB) approach to calculate the capital requirement for credit risk. Therefore, with effect from 1 January 2008 the Group applies:

- The Foundation IRB approach to calculate risk weighted assets for the corporate loans' portfolio of Eurobank Ergasias S.A. in Greece;
- The Advanced IRB for the majority of the retail loans' portfolio of the Bank, i.e. mortgages, small business lending, credit cards and revolving credits in consumer lending;
- From September 2009 the Foundation IRB approach was applied for the corporate loans' portfolio of Eurobank Ergasias Leasing S.A. in Greece;
- From March 2010 the Advanced IRB approach was applied for the Bank's portfolio of personal and car loans.

The implementation of IRB covers 75.5% of the Group's lending portfolio excluding portfolio segments which are immaterial in terms of size and risk profile as well as, permanent exemptions. The increase in the coverage ratio vis a vis 31 December 2019 (75%) is attributed to the securitisation of mortgage-backed exposures under A-IRB methodology (i.e. Pillar transaction). The Bank is in the process of reviewing the IRB roll out plan taking into account the recently issued draft guidelines and its business plan. The updated roll out plan will be subject to ECB approval.

	2020 € million	2019 € million
Credit risk (pursuant IRB Approach)		
- Corporate exposures (Foundation IRB approach) and specialised lending (Slotting methodology)	12.750	14.610
- Retail exposures that exceed € 1 million (Advanced IRB approach)	287	403
Retail exposures	-	-
- Secured by immovable property - non SME	6.309	7.996
- Qualifying revolving retail exposures	1.674	1.970
- SME exposures	3.075	5.233
- Other retail exposures	1.286	1.457
Equity	209	221
Credit risk total, IRB approach	**25.590**	31.890

4.7.2 Risk classifications

The Bank's risk classifications can be divided into the following main categories:

- rating of large corporate and medium size customers; and
- credit scores assigned to retail customers.

(a) Rating of large corporate and medium size customers

The Bank has decided upon the differentiation of rating models for corporate banking, in order to better reflect the risk for customers with different characteristics. Hence, rating models are employed for a number of general, as well as specific customer segments:

- **Traditional corporate lending:**
  - Moody's Risk Advisor (MRA).
  - Internal credit rating for those customers that cannot be rated by MRA.

MRA is a rating system that aggregates quantitative and qualitative information on individual obligors to perform the assessment of their creditworthiness and determine the credit rating for the obligor. It takes into account the company's financial performance, its cash flows, industry sector trends, peers' performance, as well as qualitative assessment of management, the company's status, market and industry structural factors. 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.

Certain types of companies cannot be analysed with MRA due to the special characteristics of their financial statements such as insurance companies, state-owned organizations, brokerage firms and start ups. In such cases an internal credit rating system is applied. It is an expert judgment borrower rating system and, similarly to MRA, it combines quantitative and qualitative assessment criteria (such as size, years in business, credit history, industry sector etc.).

Customers are classified with respect to their credit worthiness to 11 Borrower rating categories. Categories 1 to 3 correspond to low risk customers, whereas categories 4 to 6 to customers with medium credit risk. Categories 7 to 9 apply to customers with higher risk who are monitored more closely. Categories 10 and 11 apply to non-performing exposures and write offs respectively.

In addition, the Bank performs an overall assessment of corporate customers, based both on the borrower rating of the obligors (MRA or ICR) and the collaterals and guarantees referred to in its approved credit limit, using a 14 grade rating scale. Credit exposure is subject to detailed reviews by the appropriate approval level of the Bank based on the respective transactional rating (TR). Low risk corporate customers are reviewed at least once a year, whereas higher risk customers are reviewed either on a semi-annual (watchlist) or quarterly basis (substandard and distressed).

- **Specialised lending (shipping, real estate and project finance):** slotting methodology

For the specialised lending portfolios i.e. the primary source of repayment of the obligation is the income generated by the asset(s), rather than the independent capacity of the commercial enterprise, the Bank utilizes the Slotting Method by adapting and refining the CRD criteria to the Bank's risk practices. Customers falling in the specialised lending category (shipping, real estate and project finance) are classified in 5 categories: strong, good, satisfactory, weak and default. Each of the 5 categories is associated with a specific risk weight and EL percentage.

The fundamental standards underlying the Group's centralis8ed loan approval and rating processes are to review the global exposure of the customer and to use the 'four-eyes' principle, which requires each credit limit/rating to be evaluated by more than one individual. Ratings are approved by Credit Committees according to the level of exposure involved and each committee has its own specific approval limit. Ratings of customers whose exposure exceed Credit Committees' thresholds are reviewed by the Group's Central Committee. The Credit Committees are composed of senior managers from different business units, as well as from risk management and each committee has its own independent chairman.

As a general rule, each corporate customer is rated separately. For major corporate customers – where it is customary to assign a rating based on the customer's affiliation to a group or parent company – the rating of the parent company is transferred to the subsidiaries, if the Group believes that the parent company can and will guarantee the fulfilment of the obligations of its subsidiaries.

The rating systems described above are an integral part of the Corporate Banking decision making and risk management processes:

- the credit approval process, both at the origination and review process;
- the calculation of Economic Value Added (EVA) and risk-adjusted pricing; and
- the quality assessment of issuers of cheques prior to their pledge as collateral.

(b) Credit scores assigned to retail customers

The Bank assigns credit scores to its retail customers using a number of statistically based models both at origination and an ongoing basis through behavioral scorecards. Those models have been developed to predict, on the basis of available information, the probability of default (PD), loss given default (LGD) and exposure at default (EAD). 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 models were developed based on the Bank's historical data and credit bureau data. Behavioral scores are calculated automatically on a monthly basis, thus ensuring that credit risk assessments are up to date.

The models are used in the credit approval process, in credit limit management, as well as in the collections' process for the prioritization of the accounts in terms of handling. Furthermore, the models have been often used for the risk segmentation of the customers. They are also utilised for risk based pricing in 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.

All of the above processes are centralised and based on the 'four-eyes' principle.

Retail exposures are grouped into homogeneous pools (refer to credit risk measurement in paragraph 4.9.4(f)).

4.7.3 Rating process and models' monitoring

The Bank considers the process and periodic review of credit policy implementation to be of critical importance, as they enable both the integration of the latest market information and analysis into the decision process and ensure the necessary uniformity in the face of the customer. Accordingly, a comprehensive credit policy manual is utilised on the extension and monitoring of credit, detailing the guiding principles, as well as specific rules relating to lending policies.

The credit rating process is also monitored independently by the Group Credit Control Sector via post approval control and evaluation of all credit portfolios through field reviews (case by case) for corporate lending.

Group Credit Risk Capital Adequacy Control Sector monitors the capacity of the rating models and the associated risk parameters on PD, LGD and EAD on an on going basis.

The Group Model Validation & Governance Sector is performing independent annual validations of the IRB models. The scope of the Sector is to:

- Establish and monitor the governance framework for the models used by the Group;
- Perform an independent validation of significant models used by the Group, in order to ensure that the results produced are correct, cover fully business needs, as well as that the methodologies and tools applied are in alignment with industry standards and the corresponding regulatory requirements; and
- Maintain the Group model's registry.

The Bank's validation policy follows a procedure that 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 quantitative validation includes statistical tests relating to the following:

- Model stability reports such as population stability, comparison of actual and expected score distributions and characteristic analysis;
- Discriminatory power of rating models i.e. the ability to distinguish default risk on a relative basis;
- Accuracy/backtesting, i.e. comparison of ex ante probabilities of default and other risk parameters and ex post observed default/loss/credit exposure as defined for regulatory purposes level.

The validation of risk parameters is based on historical in house data utilising confidence intervals or market data/benchmarks, where such benchmarks exist. The qualitative assessment includes the use of the models, data, model design, structures and processes underlying the rating systems. In addition to the annual validation of the models, the Bank has established a quarterly monitoring procedure to assess the significance of any changes.

Validation procedures are documented and regularly reviewed and reported to the BRC. Group Internal Audit also independently reviews the validation process annually.

4.7.4 Credit risk measurement

The credit risk framework is articulated around two measures: expected loss (EL) and unexpected loss (UL) for credit risk.

- EL is the expected annual credit loss as defined in paragraph (c) below;
- UL is defined as the volatility (or one standard deviation) of annual losses. If losses always equaled their expected levels then there would be no uncertainty. UL outlines the risk arising from volatility in loss levels and thus in earnings.

The core credit risk parameters included in the estimation of expected loss, unexpected loss and credit RWAs are: Probability of Default (PD), Loss Given Default (LGD), credit exposure as defined for regulatory purposes (EAD) and Effective Maturity (M).

(a) Probability of Default (PD)

The PD represents the probability that a customer will default on his credit obligation within the next 12 months. The definition of default used by the Bank is consistent with the requirements of the CRD and BoG.

The Bank's historical default data have been used in developing PD estimates. For each grade or pool, the long term average default rate expanding over a 10 years period is used as reference when assessing the PD values.

Under the Bank's validation framework, models are validated at least annually. This back testing is performed in order to timely identify possible misalignments of the model or possible reverse trends of the PDs. In this way, the Bank reassures that the PDs used are representative of the portfolios' quality and no underestimation underlies the information disclosed.

(b) Loss Given Default (LGD)

LGD represents the loss on an exposure after a customer defaults. It is expressed as a percentage of the exposure that the Bank expects to lose at the point of default.

The first step in the development process of behavioral LGD models or segments for the Retail portfolios of the Bank was to calculate realised (historical) LGD for a significant number of years starting before 2000. Data was collected and realised losses were calculated taking into account the concept of economic loss. To calculate historical LGD values for retail exposures, the workout LGD method was employed.

The statistical modeling technique employed for the development of behavioral LGD models for consumer lending was Stepwise Linear Regression. This technique is used to first select the most predictive characteristics and then to determine the weights for each variable. For the remaining portfolios the segmentation approach was used for estimating the LGD, based on material loss drivers.

When determining the final parameter, the Bank allows for uncertainty in the data and also applies an additional margin for economic downturn, by reference to external data.

For corporate lending which is under Foundation IRB, the supervisory LGD parameters are applied.

(c) Credit exposure as defined for regulatory purposes (EAD)

For estimating credit exposures for regulatory purposes, future draw downs are taken into account through the use of Credit Conversion Factors (CCFs).

This is meaningful only for products with a risk of drawings that is loan commitments, credit cards and the like, as ordinary loans do not involve a risk of future drawings. Conversion factors are influenced by the Bank's ability to identify slow paying borrowers at an early stage and reduce their access to additional drawings.

CCF estimates for the retail portfolios of the Bank are based on the Bank's historical data. As in the LGD estimation, the Bank employed statistical modeling techniques for consumer lending products (credit cards and open line) and for small business revolving and overdraft facilities, based on key drivers.

It is noted that in some cases credit exposure as defined for regulatory purposes is observed to be lower than the current balance outstanding. In these cases a capping has been applied at the pool design stage and credit exposure as defined for regulatory purposes has been set to equal current balance outstanding, as stipulated by CRD, thus allowing for an additional margin of conservatism.

For corporate lending which is under Foundation IRB, the supervisory CCF parameters are applied.

(d) Effective Maturity (M)

For corporate lending which is under Foundation IRB, the supervisory parameter is applied (i.e. 2.5 years).

(e) Pools (retail asset classes)

For retail lending portfolios, after building the models, ratings have been defined for the risk parameters (PD, LGD and CCF) with the purpose of smoothing out fluctuations by score in the development sample and help the derivation of statistically reliable estimates of the relationship between the score and PD, LGD and CCF, respectively.

The functional relationship between the score and the risk parameter was used to create a harmonised rating scale of PD, LGD and CCF across all retail portfolios. For example, the harmonised PD Rating 1 corresponds to the same PD range regardless of unit, product or scorecard in use.

Rated exposures have been assigned into particular pools, each containing groups of sufficiently homogenous exposures to allow for accurate and consistent estimation of loss characteristics at pool level.

Pools' setting for the retail lending portfolios was driven by a number of segmentation variables (product, financial status, time on books, current delinquency status, etc.), as well as the score. All these provide for a meaningful differentiation of risk as the score is based on the assessment of numerous variables (borrower and transaction characteristics).

Back testing and comparison analysis with external data, where available, are conducted at least annually to validate the risk parameters' estimations and pools, as described in rating process and models' monitoring in paragraph 4.8.2.

The Group has received approval for using the internal rating models and all detailed validations of the parameters were submitted to and reviewed by the regulator, as part of the IRB approval process and also as part of the ongoing supervisory monitoring. Annual validation results and actions taken (redevelopment or refit of scorecards; calibration of risk parameters of PD, LGD and EAD) are also independently reviewed by Internal Audit as part of the annual recurring Basel III compliance audit in accordance with BoG Governor's Act 2577. During 2019, the Bank has performed all required adjustments and re-calibrations and incorporated in the capital calculations revised through the cycle (TTC) risk parameters to reflect the macroeconomic environment and loss severities affecting the portfolios leveraging up to date performance.

4.7.5 Exposures subject to IRB approach

The following tables present the back testing results for the PD parameter for the full spectrum of the models applied in both Retail and Corporate portfolios. The purpose of the back testing is to identify deviations between the PDs produced by the internal models and actual default rates observed. It is noted that the PDs presented below are calibrated to the long run average default rate thus they may deviate from the observed one year default rates.

Table 35: EU CR9 – IRB approach – Backtesting of PD per exposure class as at 31 December 2020 and 2019.

31 December 2020									
					Number of obligors				
Exposure class	PD range	External rating equivalent	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	% Defaulted accounts in the year	Average historical annual default rate
	%		%	%				%	%
Corporates									
Other	0.03% - 99.99%	-	1.9%	2.5%	468	489	3	0.6%	3.7%
SMEs	0.03% - 99.99%	-	7.7%	7.1%	1,737	1,636	50	2.9%	7.8%
Total Foundation IRB	**0.03% - 99.99%**	**-**	**3.7%**	**6.0%**	**2,205**	**2,125**	**53**	**2.4%**	**7.3%**

31 December 2020									
					Number of accounts				
Exposure class	PD range	External rating equivalent	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	% Defaulted accounts in the year	Average historical annual default rate
	%		%	%				%	%
Secured by immovable property non-SME retail exposures	0.46% - 99.99%	-	12.2%	14.4%	111,987	115,014	10,518	9.4%	12.5%
Qualifying revolving retail exposures	0.03% - 99.99%	-	1.8%	1.1%	871,356	892,248	16,921	1.9%	6.6%
Retail exposures-Other non- SME	0.03% - 99.99%	-	10.3%	5.8%	98,995	103,051	5,258	5.3%	7.7%
Retail SME[1]	0.03% - 99.99%	-	17.2%	17.2%	51,560	55,328	6,906	13.4%	18.2%
Total Advanced IRB	**0.03% - 99.99%**	**-**	**11.5%**	**3.6%**	**1,133,898**	**1,165,641**	**39,603**	**3.5%**	**7.8%**

Credit Risk

31 December 2019									
					Number of obligors				
Exposure class	PD range	External rating equivalent	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	% Defaulted accounts in the year	Average historical annual default rate
	%		%	%				%	%
Corporates									
Other	0.03% - 99.99%	-	1.9%	2.4%	508	468	14	2.8%	3.6%
SMEs	0.03% - 99.99%	-	7.3%	7.3%	1,779	1,737	50	2.8%	7.8%
Total Foundation IRB	0.03% - 99.99%	-	3.7%	6.2%	2,287	2,205	64	2.8%	7.2%

31 December 2019									
					Number of accounts				
Exposure class	PD range	External rating equivalent	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	% Defaulted accounts in the year	Average historical annual default rate
	%		%	%				%	%
Secured by immovable property non-SME retail exposures	0.46% - 99.99%	-	15.9%	16.2%	108,449	111,987	10,590	9.8%	12.7%
Qualifying revolving retail exposures	0.03% - 99.99%	-	2.0%	1.1%	858,860	871,356	11,814	1.4%	6.9%
Retail exposures-Other non- SME	0.03% - 99.99%	-	14.1%	6.6%	94,481	98,995	4,039	4.3%	7.8%
Retail SME[1]	0.03% - 99.99%	-	23.0%	20.0%	51,076	51,560	6,007	11.8%	18.4%
Total Advanced IRB	0.03% - 99.99%	-	15.3%	3.9%	1,112,866	1,133,898	32,450	2.9%	8.1%

(1) This exposure class includes the following three regulatory classes: Retail exposures that exceed €1mil, Retail exposures – Other SME, Retail exposures – secured by immovable property SME

Note: Average historical annual default rate represents the average annual default rate of the period 2006-2019 i.e. the calibrated through the cycle PDs used in the RWAs calculation.

Overall, the weighted average PDs have been calibrated in an economic cycle spanning from early 2006 and including the performance of the distressed financial period of the Greek economy up to and including December 2019 Long average PDs are higher than the annual default rate of 2020 (as presented in the column "% Defaulted accounts in the year"), since the macro economic environment has been improved since the peak of the recent financial crisis.

The default rate is following a decreasing trend from 2.9% in 2019 to 3.5% in 2020 for the Retail which is attributed to the COVID-19 pandemic crisis. For Corporate portfolio, although there is slight increase in SMEs default rates, the overall default rates decrease is driven by the Large Corporate segment. Overall, for the Corporate portfolio the default rate has decreased from 2.8% in 2019 to 2.4% in 2020.

4.7.6 Risk profile of exposures subject to IRB approach

The following table presents exposure classes broken down by PD band as at 31 December 2020 and 30 June 2020:

Table 36: EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

	31 December 2020											
Corporate exposures (Foundation IRB) PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
0.00 to <0.15	1,238	61	90.9%	1,211	0.1%	102	44.7%	3	303	25.0%	0.4	1
0.15 to <0.25	766	216	59.2%	812	0.2%	208	43.2%	3	348	42.9%	1	2
0.25 to <0.50	-	1	91.3%	1	0.3%	97	4.2%	1	-	5.1%	-	-
0.50 to <0.75	1,666	205	72.2%	1,676	0.7%	96	42.9%	2	1,373	81.9%	5	6
0.75 to <2.50	1,542	295	59.5%	1,535	1.3%	538	42.4%	3	1,349	87.8%	9	12
2.50 to <10.00	1,795	285	86.4%	1,911	5.6%	673	40.7%	3	2,454	128.5%	44	53
10.00 to <100.00	887	71	78.7%	895	17.3%	390	40.1%	4	1,399	156.3%	62	80
100.00 (Default)	1,628	30	81.7%	1,616	100.0%	1,948	40.8%	2	-	0.0%	659	861
Sub-total	**9,522**	**1,164**	**73.6%**	**9,657**	**19.8%**	**4,052**	**42.0%**	**3**	**7,226**	**74.8%**	**780**	**1,015**
				Average PD for non defaulted	*3.7%*							
Total all Foundation IRB	**9,522**	**1,164**	**73.6%**	**9,657**	**19.8%**	**4,052**	**42.0%**	**3**	**7,226**	**74.8%**	**780**	**1,015**
				Average PD for non defaulted	*3.7%*							

	31 December 2020											
Retail exposures that exceed € 1 million (Advanced IRB) PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [(2)] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
0.00 to <0.15	1	-	29.4%	1	0.03%	1	-	3	-	-	-	-
0.15 to <0.25	16	8	16.2%	13	0.2%	17	21.1%	3	1	11.1%	-	-
0.25 to <0.50	-	-	-	-	-	-	-	N/A	-	-	-	-
0.50 to <0.75	-	-	-	-	-	-	-	N/A	-	-	-	-
0.75 to <2.50	65	34	17.1%	50	1.7%	91	24.4%	3	19	37.1%	-	2
2.50 to <10.00	93	27	8.6%	68	5.8%	110	22.8%	4	36	52.1%	1	3
10.00 to <100.00	51	6	9.9%	50	34.2%	51	25.4%	4	44	87.8%	5	4
100.00 (Default)	106	-	-	104	100.0%	93	54.9%	4	47	45.1%	57	57
Sub-total	**332**	**75**	**13.4%**	**286**	**44.0%**	**363**	**35.2%**	**4**	**147**	**51.4%**	**63**	**66**
				Average PD for non defaulted	*12.0%*							

Credit Risk

Secured by immovable property non-SME retail exposures	31 December 2020											
PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [2] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
0.00 to <0.15	-	-	-	-	-	-	-	N/A	-	-	-	-
0.15 to <0.25	295	1	100.0%	296	0.2%	5,564	3.8%	N/A	5	-	-	-
0.25 to <0.50	454	17	100.0%	471	0.3%	8,949	4.5%	N/A	13	2.7%	-	-
0.50 to <0.75	494	3	100.0%	497	0.5%	9,158	6.4%	N/A	27	5.5%	-	-
0.75 to <2.50	1,537	4	100.0%	1,541	1.4%	25,226	11.8%	N/A	314	20.4%	3	6
2.50 to <10.00	1,841	-	100.0%	1,842	5.4%	24,170	20.9%	N/A	1,389	75.4%	22	62
10.00 to <100.00	1,083	-	100.0%	1,083	27.6%	16,455	24.8%	N/A	1,500	138.6%	76	126
100.00 (Default)	580	-	-	580	100.0%	8,380	50.2%	N/A	289	49.8%	291	291
Sub-total	**6,284**	**25**	**100.0%**	**6,310**	**15.9%**	**97,902**	**18.9%**	**N/A**	**3,537**	**56.1%**	**392**	**485**
		Average PD for non defaulted			*7.4%*							

Qualifying revolving retail exposures	31 December 2020											
PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [2] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
0.00 to <0.15	95	896	63.0%	659	0.1%	435,919	67.0%	N/A	19	2.9%	-	16
0.15 to <0.25	32	198	85.4%	201	0.2%	56,558	66.4%	N/A	13	6.5%	-	6
0.25 to <0.50	28	116	48.2%	84	0.3%	62,838	68.7%	N/A	9	10.9%	-	2
0.50 to <0.75	76	146	74.9%	185	0.6%	94,272	77.0%	N/A	39	21.0%	1	5
0.75 to <2.50	150	115	57.9%	216	1.4%	78,569	78.2%	N/A	90	41.4%	2	7
2.50 to <10.00	145	37	50.4%	164	5.3%	63,926	77.9%	N/A	167	101.8%	7	8
10.00 to <100.00	55	12	35.7%	60	24.1%	14,498	74.4%	N/A	115	192.9%	11	5
100.00 (Default)	105	-	-	105	100.0%	48,057	95.1%	N/A	5	4.9%	100	100
Sub-total	**686**	**1,520**	**65.0%**	**1,674**	**8.0%**	**854,637**	**72.7%**	**N/A**	**457**	**27.3%**	**121**	**149**
		Average PD for non defaulted			*1.8%*							

SME retail exposures	31 December 2020											
PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [2] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
0.00 to <0.15	0.1	-	-	0.1	0.1%	3	46.9%	N/A	0.01	-	-	-
0.15 to <0.25	-	-	-	-	-	-	-	N/A	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-	N/A	-	-	-	-
0.50 to <0.75	5	7	0.7%	5	0.6%	113	46.9%	N/A	1	29.1%	0.01	-
0.75 to <2.50	340	342	14.1%	300	2.0%	9,029	35.0%	N/A	109	36.2%	2	10
2.50 to <10.00	704	161	8.5%	436	5.9%	12,293	39.0%	N/A	207	47.4%	10	28
10.00 to <100.00	201	40	6.3%	193	34.5%	7,915	42.9%	N/A	149	77.3%	29	36
100.00 (Default)	143	-	-	114	100.0%	8,553	96.3%	N/A	4	3.7%	109	111
Sub-total	**1,393**	**550**	**11.7%**	**1,048**	**20.2%**	**37,906**	**44.8%**	**N/A**	**470**	**44.8%**	**150**	**185**
		Average PD for non defaulted			*10.5%*							

Credit Risk

Other non-SME retail exposures PD range	31 December 2020 Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [2] yrs	RWAs € million	RWA density %	EL € million	Value adjust-ments and provisions € million
0.00 to <0.15	0.175	0.20	99.2%	-	0.03%	3	98.0%	N/A	0.04	10.7%	-	0.01
0.15 to <0.25	39	0.15	100.0%	39	0.2%	1,377	13.4%	N/A	2	-	0.01	0.08
0.25 to <0.50	178	2.01	100.0%	180	0.4%	24,260	46.1%	N/A	59	32.9%	0.37	0.32
0.50 to <0.75	115	0.15	99.6%	115	0.6%	10,581	46.6%	N/A	46	39.9%	0.33	1
0.75 to <2.50	336	0.77	100.0%	337	1.4%	37,833	43.7%	N/A	173	51.4%	2	6
2.50 to <10.00	279	0.16	96.1%	279	5.7%	14,851	35.0%	N/A	156	55.8%	6	19
10.00 to <100.00	214	0.01	87.9%	214	28.9%	38,391	34.4%	N/A	174	81.4%	22	28
100.00 (Default)	121	-	-	122	100.0%	17,508	67.5%	N/A	40	32.5%	83	84
Sub-total	**1,282**	**3**	**99.7%**	**1,286**	**16.1%**	**144,804**	**42.2%**	**N/A**	**650**	**50.5%**	**114**	**138**
		Average PD for non defaulted			*7.2%*							

Retail exposures - Secured by immovable property SME PD range	31 December 2020 Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [2] yrs	RWAs € million	RWA density %	EL € million	Value adjust-ments and provisions € million
0.00 to <0.15	-	-	-	-	-	-	-	N/A	-	-	-	-
0.15 to <0.25	-	-	-	-	-	-	-	N/A	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-	N/A	-	-	-	-
0.50 to <0.75	-	-	-	-	-	-	-	N/A	-	-	-	-
0.75 to <2.50	273	42	22,2%	278	2,3%	3.219	13,3%	N/A	40	14,2%	1	10
2.50 to <10.00	555	34	14,5%	557	6,8%	5.772	17,0%	N/A	118	21,2%	6	36
10.00 to <100.00	659	14	6,9%	659	40,8%	7.292	18,6%	N/A	228	34,6%	50	45
100.00 (Default)	555	-	-	532	100,0%	8.494	40,4%	N/A	317	59,6%	215	216
Sub-total	**2.042**	**90**	**16,9%**	**2.026**	**41,7%**	**24.777**	**23,1%**	**N/A**	**703**	**34,7%**	**272**	**307**
		Average PD for non defaulted			*20,9%*							
Total all Advanced IRB	**12.019**	**2.263**	**48,9%**	**12.630**	**20,0%**	**1.160.389**	**0,0%**	**4**	**5.964**	**47,2%**	**1.112**	**1.330**
		Average PD for non defaulted			*8,8%*							

Corporate exposures (Foundation IRB) PD range	30 June 2020 Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity yrs	RWAs € million	RWA density %	EL € million	Value adjust-ments and provisions € million
0.00 to <0.15	1.375	106	76,3%	1.447	0,1%	113	44,3%	3	371	25,6%	-	-
0.15 to <0.25	655	233	62,0%	787	0,2%	217	43,5%	3	339	43,1%	1	1
0.25 to <0.50	28	1	90,8%	29	0,3%	96	43,5%	1	15	52,8%	-	-
0.50 to <0.75	1.571	166	70,4%	1.675	0,7%	99	43,7%	2	1.401	83,6%	5	5
0.75 to <2.50	1.570	368	71,8%	1.804	1,4%	556	42,0%	3	1.593	88,3%	10	13
2.50 to <10.00	1.759	154	80,2%	1.866	5,5%	659	41,2%	3	2.371	127,1%	42	43
10.00 to <100.00	794	48	89,1%	830	17,0%	399	39,3%	4	1.277	153,8%	56	69
100.00 (Default)	3.724	77	73,6%	3.716	100,0%	3.514	41,4%	2	-	0,0%	1.539	2.407
Sub-total	11.476	1.153	72,6%	12.154	32,9%	5.653	42,1%	3	7.367	60,6%	1.653	2.538
		Average PD for non defaulted			*3,4%*							
Total all Foundation IRB	11.476	1.153	72,6%	12.154	32,9%	5.653	42,1%	3	7.367	60,6%	1.653	2.538
		Average PD for non defaulted			*3,4%*							

Credit Risk

Retail exposures that exceed € 1 million (Advanced IRB)	30 June 2020											
PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity (2) yrs	RWAs € million	RWA density %	EL € million	Value adjust-ments and provisions € million
0.00 to <0.15	-	-		-	-	-	-	N/A	-	-	-	-
0.15 to <0.25	15	6	19,2%	15	0,2%	17	19,6%	4	2	11,2%	-	-
0.25 to <0.50	-	-		-	-	-	-	N/A	-	-	-	-
0.50 to <0.75	-	-		-	-	-	-	N/A	-	-	-	-
0.75 to <2.50	40	24	16,3%	39	1,4%	58	18,8%	5	10	25,2%	-	1
2.50 to <10.00	56	17	11,4%	55	6,8%	73	20,3%	9	28	51,3%	1	3
10.00 to <100.00	65	3	9,9%	65	32,8%	64	24,2%	10	55	85,7%	5	9
100.00 (Default)	243	-	-	241	100,0%	191	55,0%	11	52	21,5%	129	150
Sub-total	419	50	14,6%	415	64,4%	403	40,9%	10	147	35,4%	135	163
			Average PD for non defaulted		*14,7%*							

Secured by immovable property non-SME retail exposures	30 June 2020											
PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity (2) yrs	RWAs € million	RWA density %	EL € million	Value adjust-ments and provisions € million
0.00 to <0.15	-	-	-	-	-	-	-	N/A	-	-	-	-
0.15 to <0.25	282	1	100,0%	283	0,2%	5.297	4,0%	N/A	5	-	-	-
0.25 to <0.50	413	13	100,0%	426	0,3%	8.179	4,4%	N/A	11	2,6%	-	-
0.50 to <0.75	484	2	100,0%	486	0,5%	8.937	6,6%	N/A	27	5,6%	-	-
0.75 to <2.50	1.680	4	100,0%	1.683	1,4%	26.128	13,1%	N/A	383	22,7%	3	11
2.50 to <10.00	1.317	1	100,0%	1.318	5,8%	19.035	19,3%	N/A	940	71,3%	15	59
10.00 to <100.00	1.705	-	-	1.705	31,5%	24.219	26,0%	N/A	2.398	140,6%	146	274
100.00 (Default)	2.113	-	-	2.113	100,0%	23.122	50,1%	N/A	860	40,7%	1.014	1.254
Sub-total	7.994	21	100,0%	8.014	34,4%	114.917	25,4%	N/A	4.624	57,7%	1.178	1.598
			Average PD for non defaulted		*10,9%*							

Qualifying revolving retail exposures	30 June 2020											
PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity (2) yrs	RWAs € million	RWA density %	EL € million	Value adjust-ments and provisions € million
0.00 to <0.15	78	860	63,8%	626	0,1%	429.226	66,7%	N/A	18	2,9%	-	13
0.15 to <0.25	30	192	84,6%	192	0,2%	53.956	66,8%	N/A	13	6,5%	-	5
0.25 to <0.50	29	114	48,6%	84	0,3%	61.602	69,5%	N/A	9	10,9%	-	2
0.50 to <0.75	76	139	73,1%	178	0,6%	92.985	77,6%	N/A	38	21,3%	1	5
0.75 to <2.50	152	110	55,5%	213	1,5%	74.571	79,0%	N/A	90	42,2%	2	7
2.50 to <10.00	154	45	45,7%	175	5,4%	65.883	78,7%	N/A	182	103,9%	7	7
10.00 to <100.00	71	11	31,4%	74	31,5%	16.927	75,3%	N/A	146	197,4%	17	10
100.00 (Default)	340	0,22	0,0%	341	100,0%	64.484	89,2%	N/A	35	10,4%	306	306
Sub-total	930	1.471	64,8%	1.883	20,1%	859.634	74,8%	N/A	531	28,2%	333	355
			Average PD for non defaulted		*2,5%*							

Credit Risk

SME retail exposures PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [(2)] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
	30 June 2020											
0.00 to <0.15	0,1	-	-	0,1	0,1%	3	46,9%	N/A	0,01	-	-	-
0.15 to <0.25	-	-	-	-	-	-	-	N/A	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-	N/A	-	-	-	-
0.50 to <0.75	7	6	1,3%	7	0,6%	128	46,9%	N/A	2	29,1%	0,02	1
0.75 to <2.50	351	316	14,0%	294	1,9%	8.370	29,8%	N/A	90	30,5%	2	12
2.50 to <10.00	285	182	8,4%	260	6,0%	9.106	35,4%	N/A	112	43,3%	6	17
10.00 to <100.00	270	55	6,1%	256	37,3%	10.557	42,0%	N/A	191	74,7%	41	45
100.00 (Default)	546	-	-	514	100,0%	24.724	80,1%	N/A	9	1,8%	400	465
Sub-total	1.459	559	11,3%	1.331	47,4%	52.888	52,8%	N/A	404	30,4%	449	540
				Average PD for non defaulted	*14,3%*							

Other non-SME retail exposures PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [(2)] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
	30 June 2020											
0.00 to <0.15	0.004	0.1	41.9%	-	0.03%	4	86.3%	N/A	0.002	9.0%	-	-
0.15 to <0.25	33	0.11	100.0%	33	0.2%	1,224	8.8%	N/A	1	-	0.01	0.07
0.25 to <0.50	161	0.90	100.0%	162	0.4%	21,738	46.6%	N/A	54	33.3%	0.34	0.29
0.50 to <0.75	91	0.15	100.0%	91	0.6%	7,306	40.6%	N/A	31	34.5%	0.23	1
0.75 to <2.50	337	0.47	100.0%	337	1.4%	38,438	41.9%	N/A	168	49.8%	2	6
2.50 to <10.00	199	0.03	100.0%	199	5.6%	17,882	33.1%	N/A	104	52.5%	4	8
10.00 to <100.00	308	0.003	100.0%	308	33.4%	41,545	34.1%	N/A	243	78.9%	37	49
100.00 (Default)	390	-	-	391	100.0%	18,827	63.6%	N/A	122	31.1%	240	269
Sub-total	1,519	2	98.2%	1,521	33.6%	146,964	44.4%	N/A	723	47.5%	284	333
				Average PD for non defaulted	*10.6%*							

Retail exposures - Secured by immovable property SME PD range	Original on-balance-sheet gross exposures € million	Off-balance-sheet exposures pre-CCF € million	Average CCF %	EAD post CRM and post CCF € million	Average PD %	Number of obligors	Average LGD %	Average maturity [(2)] yrs	RWAs € million	RWA density %	EL € million	Value adjustments and provisions € million
	30 June 2020											
0.00 to <0.15	-	-	-	-	-	-	-	N/A	-	-	-	-
0.15 to <0.25	-	-	-	-	-	-	-	N/A	-	-	-	-
0.25 to <0.50	-	-	-	-	-	-	-	N/A	-	-	-	-
0.50 to <0.75	-	-	-	-	-	-	-	N/A	-	-	-	-
0.75 to <2.50	205	36	18.7%	208	2.2%	2,585	10.8%	N/A	24	11.4%	0.5	5
2.50 to <10.00	511	32	17.8%	514	7.3%	5,327	15.6%	N/A	102	19.8%	6	33
10.00 to <100.00	995	17	7.8%	995	41.3%	10,170	18.2%	N/A	326	32.8%	76	141
100.00 (Default)	2,185	-	-	2,160	100.0%	26,444	45.0%	N/A	345	16.0%	945	1,229
Sub-total	3,896	85	16.2%	3,877	67.4%	44,526	32.4%	N/A	797	20.6%	1,027	1,408
				Average PD for non defaulted	*26.4%*							
Total all Advanced IRB	16,217	2,188	48.4%	17,041	42.0%	1,219,332	36.7%	10	7,226	42.4%	3,406	4,397
				Average PD for non defaulted	*12.4%*							

Note:
1. PD refers to the PD calibrated Through the Cycle (TtC) and LGD refers to downturn LGD, both used for the calculation of RWAs.
2. Average maturity is presented only in the exposure classes where it is required for the RWAs calculation.
3. In contrast with CoReps where the number of accounts are presented for Retail portfolios, the above tables depict the number of obligors in each asset class and PD band. If an obligor has multiple loans classified in more than one category, then the obligor is reported multiple times.

The main developments in the IRB portfolio, during the second half of 2020, were the following:

Foundation IRB

- The risk profile of the non-defaulted corporate portfolio has remained stable (weighted average Through the Cycle - TtC PD equals to 3.7% both in December 2020 and in June 2020).

Advanced IRB

- The retail portfolio under AIRB decreased by €4.198 million (On balance) mainly due to Cairo transaction.
- The risk profile of the non-defaulted retail portfolio has been improved across asset classes (weighted average PD 8.8% in December 2020 from 12.4% in June 2020). Specifically, the Secured by immovable property non-SME TtC PD decreased from 10.9% in June 2020 to 7.4% in December 2020, the Other non-SME from 10.6% to 7.2%, the Retail SME from 14.3% to 10.5% and the Qualifying Revolving from 2.5% to 1.8%. Although a deterioration in the performance of all Retail portfolios has been observed up and until May 2020, the trend has been reversed till June 2020 due to the easing of COVID19 lockdown restrictions and the relief measures applied.

The table below presents the specialised lending credit exposures (shipping, real estate and project finance) broken down by supervisory risk categories and remaining maturities as at 31 December 2020 and 30 June 2019:

Table 37: EU CR10 – IRB (specialised lending)

		31 December 2020					
		Specialised lending					
Regulatory categories	Remaining maturity	On balance sheet amount € million	Off balance sheet amount € million	Risk weight	Exposure amount € million	RWAs € million	Expected losses € million
Strong	Less than 2.5 years	74	4	50%	76	38	-
	Equal to or more than 2.5 years	1.253	37	70%	1.271	890	5
Good	Less than 2.5 years	209	5	70%	214	150	1
	Equal to or more than 2.5 years	878	56	90%	907	816	7
Satisfactory	Less than 2.5 years	63	-	115%	63	72	2
	Equal to or more than 2.5 years	145	3	115%	147	169	4
Weak	Less than 2.5 years	-	-	250%	-	-	-
	Equal to or more than 2.5 years	-	-	250%	-	-	-
Default	Less than 2.5 years	138	-	0%	138	-	69
	Equal to or more than 2.5 years	85	-	0%	85	-	43
Total	**Less than 2.5 years**	**484**	**9**		**491**	**260**	**72**
	Equal to or more than 2.5 years	**2.361**	**96**		**2.410**	**1.875**	**59**

Credit Risk

Regulatory categories	Remaining maturity	On balance sheet amount € million	Off balance sheet amount € million	Risk weight	Exposure amount € million	RWAs € million	Expected losses € million
		30 June 2020					
		Specialised lending					
Strong	Less than 2.5 years	108	5	50%	111	55	-
	Equal to or more than 2.5 years	1,290	34	70%	1,307	915	5
Good	Less than 2.5 years	132	5	70%	136	96	1
	Equal to or more than 2.5 years	812	67	90%	847	761	7
Satisfactory	Less than 2.5 years	62	-	115%	62	72	2
	Equal to or more than 2.5 years	202	3	115%	204	234	6
Weak	Less than 2.5 years	-	-	250%	-	1	-
	Equal to or more than 2.5 years	6	-	250%	6	15	-
Default	Less than 2.5 years	387	1	0%	388	-	193
	Equal to or more than 2.5 years	320	-	0%	320	-	160
Total	Less than 2.5 years	689	11		697	224	196
	Equal to or more than 2.5 years	2,630	104		2,684	1,925	178

The risk profile of the non-defaulted specialised lending portfolio has been further improved within the second half of 2020 (EL 0.7% as at 31 December 2020 vis a vis EL of 0.8% as at 30 June 2020).

The following table presents the main changes in capital requirements of credit risk exposures under the IRB approach from 30 September 2020 to 31 December 2020:

Table 38: EU CR8 – RWA flow statements of credit risk exposures under the IRB approach

	31 December 2020	
	RWA amounts € million	**Capital requirements € million**
RWAs as at 1 October 2020	15,319	1,226
Asset size	191	15
Asset quality	(131)	(10)
Model updates	10	1
Methodology and policy	-	-
Acquisitions and disposals	-	-
Foreign exchange movements	(62)	(5)
Other	(2)	-
RWAs as at 31 December 2020	**15,325**	**1,227**

Asset size: Under this item the changes in RWAs due to the changes in EAD are reported. These changes can be due to new originations or repayments of the loans.

Asset quality: The changes to the RWAs due to the borrower risk (i.e. rating grade migration) are reported under this item.

Model updates: The changes to the RWAs due to updates in risk parameters following the annual validation process or regulatory reviews.

Methodology and policy: Under this item, the changes in RWAs due to regulatory framework changes are presented.

Foreign exchange movements: The changes to the RWAs due to the foreign currency translation movements are reported.

Other: Under this item the changes in RWAs due to other factors that are used in the calculation of RWAs are reported. These, for example, include changes in total sales of the corporate borrowers and maturity of exposures.

In the last quarter of 2020, RWAs show a net increase of € 5 million due to the net effect of the new production of both Corporate and Retail exposures which were counterbalanced by the improvement in the quality of these portfolios as depicted under "Asset quality" in the table above.

The following table presents the equity exposures, broken down by risk weights as at 31 December 2020 and 30 June 2020.

Table 39: EU CR10 – IRB (equities)

	31 December 2020					
	Equities under the simple risk-weighted approach					
Categories	**On balance sheet amount € million**	**Off balance sheet amount € million**	**Risk weight**	**Exposure amount € million**	**RWAs € million**	**Capital requirements € million**
Private equity exposures	163	-	190%	163	309	25
Exchange-traded equity exposures	25	-	290%	25	73	6
Other equity exposures	21	-	370%	21	78	6
Total	**209**	**-**		**209**	**460**	**37**

	30 June 2020					
	Equities under the simple risk-weighted approach					
Categories	On balance sheet amount € million	Off balance sheet amount € million	Risk weight	Exposure amount € million	RWAs € million	Capital requirements € million
Private equity exposures	172	-	190%	172	326	26
Exchange-traded equity exposures	21	-	290%	21	61	5
Other equity exposures	21	-	370%	21	78	6
Total	214	-		214	465	37

4.8 Credit risk mitigation

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

4.8.1 Types of collateral commonly accepted by the Bank

The following collateral types are accepted according to the Bank's internal policies:

- Residential real estate (e.g., houses, apartments, vacation homes etc.);
- Commercial real estate (e.g., office buildings, shopping centers, shops, logistics centers etc.);
- Land (e.g., urban, agricultural, other);
- Receivables (trade debtors) and post-dated cheques;
- Financial collaterals, listed shares, listed bonds and other specific securities accepted;
- Deposits;
- Guarantees and letters of support;
- Insurance contracts; and
- Machinery and equipment, vehicles and vessels.

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

For Treasury exposures (i.e. repos, reverse repos, derivatives, etc.) the Group accepts only cash or liquid bonds as collaterals.

4.8.2 Valuation principles of collateral

In the context of supervisory guidelines and in order to manage effectively the real estate portfolio that has been accepted as collateral, the Bank has issued the Collaterals and Valuation Policy which is approved by the Board Risk Committee and details – among other things the type of initial valuation and the frequency of revaluation for the assessment of the commercial value of real estate collaterals.

All valuations (including revaluations) should be performed by independent qualified appraisers (individuals or legal entities or employees of legal entities), who possess the necessary qualifications, ability and experience to execute a valuation. In all cases, the Bank must be the ordering party. Otherwise, the Bank needs to obtain a "duty of care" statement from the valuator.

Immovable property collateral should be valued, in full adherence to European and international standards and specifically the European Valuation Standards EVS-2016 (Blue Book) and the Royal Institute of Chartered Surveyors (RICS). Moreover, for NPEs the relevant provisions of ECB Guidance to banks on non-performing loans (March 2017) apply.

The Bank has an approved list of independent and qualified appraisers which can perform valuations. The approved list of appraisers is updated on an annual basis or at shorter intervals if necessary.

All immovable properties should be valued on the basis of market value. Market value is the estimated amount for which an asset or liability should be exchanged on the valuation date between a willing buyer and a willing seller in an arm's length transaction after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.

After two sequential updated individual valuations (as those are defined in the next section) of the same immovable property, the appraiser should rotate (either to a different independent valuator or to a different independent appraisal provider).

Regarding prenotated/mortgaged real estate properties that are located outside Greece, the following apply:

- If the property is located in a country where the Bank has a subsidiary, the valuation is performed by the locally approved appraisers;
- If the property is located in a country where there is no subsidiary, the valuation is requested from a certified First Class appraiser in that country;
- For all properties located outside Greece, the same rules of valuation/revaluation as in Greece apply (e.g. loan balance, frequency of valuation, revaluation etc.).

On exceptional cases, in corporate banking, it is permitted to use an appraiser not included in the approved list. Such exceptions must be approved by the competent Approval Level and should refer:

- Syndicated Loans where Bank is not the arranger;
- Highly specialized cases, which they cannot be performed by any of the approved valuators;
- Borrowers propose for specific and substantiated reasons the use of an appraiser not included in the approved list, given the fact that objectivity and independency standards are met.

In the following sections the type and frequency of valuation and revaluation of real estate properties are described in detail.

The initial valuation of real estate assets for the purposes of granting a new credit facility or refinancing existing credit facilities, is being conducted in all cases through the property’s physical inspection undertaken by the appraisers.

The major acceptable categories of real estate that can be used as collateral by the Bank are:

- Residential Real Estates (e.g., houses, apartments, vacation homes, urban plots with residential use etc.)
- Commercial Real Estates (e.g., office buildings, shopping centers, shops, logistics centers, industrial structures, factories, hotels, camping sites, theaters, educational facilities, hospitals, land with agricultural use, warehouses, etc.)

For every Real Estate that will be used as collateral, prior to initial disbursement it has to be appropriately verified that the said property is in legal and technical order (also referred as legal and technical compliance).

There are two major types of property valuation: individual and indexed.

Individual Valuations

Individual property valuations (including updated individual property valuations) are defined as property-specific appraisals, which are performed by an appraiser on a specific property basis and are not based on indexation or any other automated process. There are two methods of individual valuations: through physical inspection & desktop.

Valuation with Physical Inspection

In order to conduct a property valuation with physical inspection, all supporting documentation, should be collected (such as property title, topographical plan, floor plans). The valuation is carried out with external and/or internal inspection of the property. The Current Market Value and the Final Market Value are estimated. In the case of completed properties these two values are equal, while for cases of unfinished buildings they are different (in these cases collateral coverage is calculated using the Current Market Value).

If during the inspection it is identified that the property has undergone changes (alterations) regarding its surface (without changes in the perimeter or changes that do not affect the existing horizontal properties), the property has to be appraised after the submission of required/mandatory documents.

For every new loan origination, a physical inspection must be performed.

In cases regarding financing of building under construction with gradual disbursements, an evaluation with physical inspection should precede each disbursement to confirm the current stage of completion.

Desktop Valuation

This method is used to update an existing valuation (revaluation), is carried out without physical property inspection but it is conducted on the specific property basis and is not based on indexation or any other automated process. It is noted that for this method to be considered eligible, it is a prerequisite that the initial valuation of the property was performed via the physical inspection method. Both physical inspection and desktop valuations are performed by appraisers from the approved list.

Valuations derived from indexation or any other automated processes are defined as indexed valuations.

The Bank fully abides by ECB guidelines "Guidance to banks on non-performing loans" March 2017, according to which indexed valuations may be used to update the valuation of immovable property collateral securing non-performing loans of less than € 300,000 in gross value, provided that the collateral to be valued is susceptible to measurement by such methods.

Index for Residential Real Estate

Eurobank, in cooperation with the National Bank of Greece and Alpha Bank S.A. provided data for the development of a statistical index, the **PropIndex**, which is used to revalue residential real estate properties over the loan's lifetime. The methodology and development of PropIndex have been prepared by a company specialized in the statistical field and the index has been approved by the Bank of Greece. It is now considered as a tool used to monitor probable changes in the values of residential real estate properties but also for analyzing current market's trend. This index is updated on an annual basis.

Index for Commercial Real Estate

For commercial real estate valuations, Eurobank uses the CRE Index. This index is derived through a combination of CPS & BoG CRE indices and is provided annually by CPS. The index constitutes a tool for the statistical monitoring of changes of the values of commercial real estate property collaterals.

In case of significant Real Estate market changes, indexed valuations may be used more often than annually in order respective market changes to be incorporated in collaterals' market values.

The following table summarizes the revaluation policy for the Retail lending portfolios.

Immovable Assets			
EBA Status	Type & Frequency		
Performing (PE, PF & CPF)	Loan Exposure (in € '000)		
	<= 300	> 300 & <=1,000	> 1,000
	Index, Annually.	Index, Annually.	Physical inspection, Annually.
Performing → Non-Performing (including denounced)	Loan Exposure (in € '000)		
	<=300	> 300 & <= 1,000	> 1,000
	Index	Desktop valuation is required to take place within max three (3) months from reclassification unless a valuation has taken place during the last 6 months.	Physical inspection valuation is required to take place within max three (3) months from reclassification unless a valuation has taken place during the last 6 months.
Non-Performing (NPE & NPF)	Loan Exposure (in € '000)		
	<= 300	>300 & <= 1,000	> 1,000
	Index, Annually.	Desktop, Annually and for as long as the exposure is classified as non-performing.	Physical inspection, Annually.

Special types of immovable assets (hotels, shopping centers, medical diagnostic centers, fitness/beauty centers, legally permissible building height) should be revaluated through Desktop annually and every two years with Physical Inspection

Credit Risk

The following table summarizes the revaluation policy for the Wholesale lending portfolios.

EBA Status	Immovable Assets			
Performing (PE, PF & CPF)	Loan Exposure (in € '000)			
	<= 1.000		> 1.000	
	Residential Real Estate	Commercial Real Estate	Residential Real Estate	Commercial Real Estate
	Every 3 years as below: • Physical inspection every 3 years. • In-between years with Index.	Every Year as below: • Physical inspection every 2 years. • In-between years Index or desktop for special types. [1]	Every 3 years as below : • Physical inspection every 3 years. • In-between years with desktop.	Every Year as below: • Physical inspection every 2 years. • In-between years with desktop.

EBA Status	Loan Exposure (in € '000) - All types of Immovable Assets		
Performing → Non-Performing (including denounced)	<= 300	> 300 & <= 1,000	> 1,000
	Index. For special types [1] a Desktop valuation is required to take place within max (3) three months from reclassification unless a valuation has taken place during the last 6 months.	Desktop valuation is required to take place within max (3) three months from reclassification unless a valuation has taken place during the last 6 months.	Physical inspection valuation is required to take place within max three (3) months from reclassification unless a valuation has taken place during the last 6 months.

EBA Status	Loan Exposure (in € '000) - All types of Immovable Assets	
Non-Performing (NPE & NPF)	<= 300	> 300
	• Every year with Index. • For special types [1] with Desktop annually.	Every year as below: • Physical inspection every 2 years. • In-between years Desktop

[1] Special Types: Hotels, shopping centers, medical diagnostic centers, fitness/beauty centers, legally permissible building height.

Other collaterals:

To ensure the quality of 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 weekly through the use of advanced statistical reports and monthly through detailed information regarding recoverability of cheques, referrals and bounced cheques, per issuer broken down by business unit (corporate and small business banking).

In case of reverse repos, the bonds received as collateral are evaluated on a daily basis by the official valuation system. All these are monitored via credit exposure measurement system that takes into account the specific characteristics of every contract.

4.8.3 Collateral policy and documentation

For loan products, Group instructions emphasize that practices followed are timely and prudent in order to ensure that collateral items are controlled by the Group's entities and that the loan and pledge agreement, as well as the collateral is

legally enforceable. Therefore, the Group's entities hold the right to liquidate collateral in the event of the obligor's financial distress and can claim and control cash proceeds from a liquidation process.

The Group uses to a large extent standard loan and pledge agreements, ensuring legal enforceability.

The application of CSA (Credit Support Annex) and GMRA (Global Master Repurchase Agreements) contracts determines the cash that should be paid or received in case of derivatives and repos contracts.

4.8.4 Guarantees and credit derivatives

The guarantees used as credit risk mitigation by the Group are largely issued by central and regional governments in the countries in which it operates. The Public Fund for very small businesses (ETEAN) and similar funds, banks and insurance companies are also important guarantors of credit risk.

The Bank enters into credit derivative transactions with both retail and investment banks. The lowest counterparty rating is A, whereas the average counterparty rating is AA (Standard & Poor's rating scale).

Only eligible providers of guarantees and credit derivatives can be recognised in the Standardised and Foundation IRB approach for credit risk. All central governments, regional governments and institutions are eligible. Guarantees issued by corporate entities can only be taken into account if their rating corresponds to A- (Standard & Poor's rating scale) or better.

The table below presents guarantees received broken down by primary type of guarantee as at 31 December 2020 and 2019.

	2020 **€ million**	2019 € million
Guarantees issued by Central Banks or Central Governments	1.006	365
Guarantees issued by Banks	188	89
	1.194	454

The table below provides the impact of the credit derivatives used as mitigation techniques in RWAs as at 31 December 2020 and 30 June 2020.

Table 41: EU CR7 – IRB approach – Effect on the RWAs of credit derivatives used as CRM techniques

	31 December 2020		30 June 2020	
	Pre-credit derivatives RWAs € million	Actual RWAs € million	Pre-credit derivatives RWAs € million	Actual RWAs € million
Exposures under FIRB				
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Total corporates	9.525	9.525	9.678	9.678
Corporates – SMEs	2.436	2.436	2.326	2.326
Corporates – Specialised lending	2.258	2.258	2.275	2.275
Corporates – Other	4.831	4.831	5.077	5.077
Exposures under AIRB				
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates – SMEs	147	147	147	147
Corporates – Specialised lending	-	-	-	-
Corporates – Other	-	-	-	-
Retail – Secured by real estate SMEs	703	703	797	797
Retail – Secured by real estate non-SMEs	3.537	3.537	4.624	4.624
Retail – Qualifying revolving	457	457	531	531
Retail – Other SMEs	470	470	404	404
Retail – Other non-SMEs	650	650	724	724
Equity IRB	460	460	465	465
Other non credit obligation assets	35	35	36	36
Total	**15.984**	**15.984**	17.406	17.406

[1] *Securitisation positions are not included in the above table.*

4.8.5 Netting agreements

To reduce the exposure towards single counterparties, risk mitigation techniques are used. The most common is the use of closeout netting agreements (usually based on standardised ISDA contracts), which allow the bank to net positive and negative replacement values in the event of default of the counterparty.

Furthermore, the Bank also applies margin agreements (CSAs) in case of counterparties. Thus, collateral is paid or received on a daily basis to cover current exposure. In case of repos and reverse repos the Bank applies netting and daily margining using standardised GMRA contracts.

The Bank already implements the framework for clearing transactions through central counterparty (CCP). Additionally, the Bank is in a position to apply the regulatory framework for transactions not cleared through central counterparty.

4.8.6 Concentration risk on collaterals

For credit exposures, the most commonly accepted collaterals for credit risk mitigation purposes are real estate assets. Consumer loans are not collateralised, except for car loans where the Bank retains ownership until full loan repayment. Mortgage loans are fully collateralised with residential real estate properties.

The Bank does not undertake significant market or credit risk on collaterals of Treasury transactions. In case of cash collateral in foreign currency transactions, the Bank manages the respective foreign exchange exposure accordingly.

Furthermore, since the Bank uses GMRAs for the risk mitigation of repos and reverse repos, the market risk exposure is minimal. In case of reverse repo transactions, the Bank generally accepts high quality government issues as collaterals. The collateral amount on corporate bonds is immaterial.

4.8.7 Analysis of collaterals

The following table provides the volume of unsecured and secured exposures including all collateral, financial guarantees and credit derivatives used as credit risk mitigants and are eligible under the respective regulatory approach as at 31 December 2020 and 30 June 2020.

Table 42: EU CR3 – CRM techniques – Overview

	31 December 2020				
	Exposures unsecured – Carrying amount € million	Exposures to be secured[1] € million	Exposures secured by collateral[1] € million	Exposures secured by financial guarantees € million	Exposures secured by credit derivatives € million
Total loans to banks and customers	19.734	17.386	14.391	1.243	-
Total debt securities [2]	8.240	-	-	-	-
Total exposures	**27.974**	**17.386**	**14.391**	**1.243**	**-**
Of which defaulted	521	1.965	1.793	95	-

	30 June 2020				
	Exposures unsecured – Carrying amount € million	Exposures to be secured € million	Exposures secured by collateral € million	Exposures secured by financial guarantees € million	Exposures secured by credit derivatives € million
Total loans to banks and customers	20.288	19.399	16.678	380	-
Total debt securities	9.687	-	-	-	-
Total exposures	29.975	19.399	16.678	380	-
Of which defaulted	865	3.839	3.253	39	-

Notes:
[1] The decrease in exposures to be secured and secured by collateral compared to June 2020 is due to the de-recognition of Cairo.
[2] The decrease in debt securities is mainly due to decreased position in Sovereign Bonds.
[3] The value of collaterals and the amount of financial guarantees shown above are the allocated values after regulatory haircuts.
[4] For real estate properties the lower between the market value and the pledged amount is considered.

4.9 Asset Backed Securities

4.9.1 Bank's objectives and role

The Group, as part of its funding activity, enters into securitisation transactions of various classes of loans (corporate, small and medium enterprise, mortgage, consumer loans, credit card and bond loans), which generally result in the transfer of the above assets to structured entities (securitisation vehicles), which, in turn issue debt securities held by investors and the Group's entities. The Group monitors the credit quality of the securitisations' underlying loans, as well as the credit ratings of the debt instruments issued, when applicable, and provides either credit enhancements to the securitisation vehicles and/or transfers new loans to the pool of their underlying assets, whenever necessary, in accordance with the terms of the relevant contractual arrangements in force.

Moreover, the Group in the context of its non-performing loans (NPEs) reduction acceleration plan launched in November 2018 entered into the securitisation of various classes of NPEs through the issue of senior, mezzanine and junior notes.

4.9.2 Methodology for risk weightings

The framework concerning the Capital Adequacy calculations for legacy ABSs portfolio was amended by the Regulation 2017/2401. Following the hierarchy of these methods, the Bank has adopted the SEC-ERBA method for the calculations of the risk – weighted exposure amounts of the legacy ABSs portfolio. According to this method the STS/non STS status, rating, maturity and seniority of the security are taken into account in determining the appropriate risk weight factor.

4.9.3 Accounting policies

Consolidation of Structured Entities

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. A structured entity often has restricted activities, a narrow well-defined objective, insufficient equity to permit it to finance its activities without subordinated financial support and financing in the form of multiple contractually linked instruments to investors that create concentrations of credit or other risks.

An interest in a structured entity refers to contractual and non-contractual involvement that exposes the Group to variability of returns from the performance of the structured entity.

Structured entities may be established by the Group or by a third party and are consolidated when the substance of the relationship is such that the structured entities are controlled by the Group. In determining whether the Group has control over such structured entities, it considers the following factors:

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

As a result of the consolidation assessment performed, the Group has involvement with both consolidated and unconsolidated structured entities.

Derecognition of financial assets

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

In the case of securitisation transactions established by the Group, in order to assess the application of the above mentioned de-recognition principles, the Group considers the structure of each securitisation transaction including its exposure to the more subordinated tranches of the notes issued and/or credit enhancements provided to the structured entities, as well as the securitisation's contractual terms that may indicate that the Group retains control of the underlying assets.

For more information about asset backed securities refer to Consolidated Financial Statements Note 25.

4.9.4 Securitised exposures

The following table presents the risk weights of the purchased securitised exposures of the Group, based on the IRB approach, as at 31 December 2020 and 30 June 2020:

Table 43: Securitisation exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor

(€ million)

	31 December 2020																
	Exposure values (by RW bands)					Exposure values (by RW bands)				RWA (by regulatoty approach)				Capital charge after the cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%
Total exposures	2.440	-	1.058	7	-	2.444	-	1.061	-	28	-	958	-	2	-	77	-
Traditional securitisation	2.440	-	1.058	7	-	2.444	-	1.061	-	28	-	958	-	2	-	77	-
Of which securitisation	2.440	-	1.058	7	-	2.444	-	1.061	-	28	-	958	-	2	-	77	-
Of which retail underlying	690	-	1.057	4	-	690	-	1.061	-	1	-	958	-	-	-	77	-
Of which wholesale	1.750	-	-	4	-	1.754	-	-	-	27	-	-	-	2	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Synthetic securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Credit Risk

(€ million)

	30 June 2020																
	Exposure values (by RW bands)					Exposure values (by RW bands)				RWA (by regulatoty approach)				Capital charge after the cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%
Total exposures	-	-	1.058	4	-	-	-	1.062	-	-	-	962	-	-	-	77	-
Traditional securitisation	-	-	1.058	4	-	-	-	1.062	-	-	-	962	-	-	-	77	-
Of which securitisation	-	-	1.058	4	-	-	-	1.062	-	-	-	962	-	-	-	77	-
Of which retail underlying	-	-	1.058	4	-	-	-	1.062	-	-	-	962	-	-	-	77	-
Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Synthetic securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 44: Securitisation exposures in the Banking Book and associated capital requirements - bank acting as investor

(€ million)

	31 December 2020																
	Exposure values (by RW bands)					Exposure values (by RW bands)				RWA (by regulatoty approach)				Capital charge after the cap			
Total exposures	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%
Traditional securitisation	1	49	17	-	-	-	67	-	-	-	35	-	-	-	3	-	-
Of which securitisation	1	49	17	-	-	-	67	-	-	-	35	-	-	-	3	-	-
Of which retail underlying	1	47	17	-	-	-	65	-	-	-	34	-	-	-	3	-	-
Of which wholesale	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Synthetic securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(€ million)

	30 June 2020																
	Exposure values (by RW bands)					Exposure values (by RW bands)				RWA (by regulatoty approach)				Capital charge after the cap			
Total exposures	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%	IRB RBA (including IAA)	ERBA	SA	1250%
Traditional securitisation	1	53	17	-	-	-	72	-	-	-	36	-	-	-	3	-	-
Of which securitisation	1	53	17	-	-	-	72	-	-	-	36	-	-	-	3	-	-
Of which retail underlying	1	52	17	-	-	-	71	-	-	-	35	-	-	-	3	-	-
Of which wholesale	-	2	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Synthetic securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

For securitisation exposures the Group uses one or more of the following external rating agencies: Moody's, Standard & Poor's and Fitch (refer to par. 4.6).

5. Market Risk

5.1 Definition and policies

5.1.1 Risk strategy

Objectives for market and counterparty risk control and supervision

Risk is at the core of the Eurobank's business. The objectives for the Bank's market and counterparty risk control and supervision are to:

- protect the Bank against unforeseen market and counterparty related losses and contribute to earnings stability through the independent identification, assessment and understanding of the market risks inherent in the business;
- align the Bank organisational structure and management processes with regulatory requirements and international best practices;
- set minimum standards for controlling market and counterparty risks;
- develop transparent, objective and consistent market and counterparty risk information as the basis for sound decision-making;
- establish a structure that will allow the Bank to link business strategy and operations with the objectives for risk control and supervision;
- safeguard adherence to the Group's Risk Appetite limits.

The Bank is developing processes to measure performance on a risk-adjusted basis and allocate capital accordingly with the objectives to maximise earnings potential.

Risk Definitions

Sources of market and counterparty risks

Market risk is the risk of potential financial loss due to an adverse change in market variables. As noted elsewhere in the document, the Bank is exposed to five types of market risk:

- Interest-rate risk;
- Equity price risk;
- Foreign exchange risk;
- Commodities price risk; and
- Implied Volatilities of the above.

Counterparty risk is the risk of potential financial loss stemming from a counterparty's inability to meet his financial obligations in the context of a market instrument. It includes:

- Issuer risk for debt securities traded in the financial markets;
- Counterparty credit risk for derivatives (interbank and corporate);
- Counterparty credit risk for on balance sheet interbank activities (placings, repos, etc).

Effects of market and counterparty Risks

The Bank is potentially exposed to market risks through all of its assets, liabilities and off-balance sheet positions, in both Treasury and all other portfolios.

Changes in market variables can affect the ERB financial condition in three ways:

- the earnings effect - the impact of changes in market rates on cash flow;
- the economic value, or net worth, of ERB, which is equal to the present value of all of its expected net future cash flows discounted to their present value to reflect market rates. Changes in market variables will impact the economic value of ERB assets, liabilities and off-balance sheet positions and therefore its economic value;
- the Potential Future Exposure (PFE) effect – the impact of changes in market risk variables to counterparty exposure and subsequent increase of counterparty credit risk faced by the Bank.

The purpose of the Bank's market risk control and supervision structure is to control and monitor the effect of market risks on earnings, economic value and potential future exposure.

Similarly, the Bank is potentially exposed to counterparty risks through all of its assets and off-balance sheet positions, in both Treasury and all other portfolios. Counterparty credit-worthiness affects the economic value, or net worth, of ERB, which is equal to the present value of all of its expected net future cash flows discounted to their present value to reflect market rates.

5.1.2 Market and Counterparty Risk Governance Structure

Board Risk Committee (BRC)

The Board Risk Committee (BRC) of Eurobank Ergasias S.A. and its subsidiaries (the Group) is a committee of the Board of Directors (BoD) and its purpose is to assist the BoD in discharging its oversight responsibility relating Credit, Market and Operational Risks.

In the context of market and counterparty Risks, the BRC:

- Ensures that the Group has a well-defined market and counterparty Risk strategy and risk appetite in line with its business/restructuring plan and that the risk appetite in question is articulated in a set of qualitative and quantitative statements, limits and an appropriate measurement methodology;
- Ensures that the Group has developed an appropriate market and counterparty Risk management framework which is embedded in the decision making process (e.g. new products introduction, risk adjusted pricing, risk adjusted performance measures and capital allocation) throughout the organization and its subsidiaries;
- Reviews relevant policies and procedures;
- Ensures that the Group has the appropriate modeling tools, data sources and sufficient and competent staff needed to identify, assess, monitor and mitigate risks;
- Reviews on a regular basis the adequacy of relevant measures and controls;
- Reviews and assesses, through regular reporting by the Group Market and Counterparty Risk Sector (GMCRS), the Bank's and Group's risk profile and effectiveness of its risk management policies;
- Monitor Business Units' implementation of and compliance with Group market and counterparty Risk Policies and Procedures;
- Ensures that appropriate stress tests are performed, at least on an annual basis, in relation to all major Group risks;
- Provides a point of escalation in case of relevant limit breaches.

Group Chief Risk Officer (GCRO)

In the context of market risks, the GCRO oversees the implementation of the market risk policies approves and signs off:

- Sources and assumptions underlying the valuation of all securities and derivatives;
- Credit Valuation Adjustment (CVA) calculation methodologies;
- Assumptions underlying the VaR calculation implementation.

Group Market and Counterparty Risk Sector (GMCRS)

GMCRS is an independent unit of the Bank under the Group Chief Risk Officer. In the context of market and counterparty risks, the GMCRS performs two key functions within the Group:

- The sole, independent valuation of all derivatives and debt securities held in Eurobank Ergasias S.A. and its subsidiary Banks;
- The identification, measurement and reporting of all market and counterparty risks within the Group.

The pricing and risk measurement methodologies of GMCRS are approved by the CRO and are audited by internal and external auditors on a regular basis.

In the context of market and counterparty risks, the Bank's GMCRS is responsible for:

- Maintaining market and counterparty Risk policies (including policies for the management and monitoring of the Interest Rate Risk in the Banking Book) and procedures appropriate to the chosen business and risk profile;
- Identifying and assessing all market and counterparty Risks on the ERB Group balance sheet;
- Monitoring Global Markets and other key Business Unit activities from a market risk perspective;
- Evaluating all Treasury securities and derivatives;
- Ensuring compliance with regulatory requirements as they relate to market and counterparty risk;
- Calculating Capital Adequacy requirements for market and counterparty risk (following the approval of the internal model from BoG in July 2005) and conducting regular reporting to the SSM;
- Ensuring compliance with the risk limits and appetite set by the Management;
- Monitoring and reporting the limit utilization to the Management and the BRC. This includes escalation of limit breaches or significant market risk issues;
- Reviewing new products (Loans, Deposits and investment products) from a market and counterparty risk perspective;
- Expanding market and counterparty risk infrastructure and processes to conform to international best practices;
- Reviewing market and counterparty risk policies on an annual basis.

Country Risk Committees (CRCs)

Country Risk Committees are risk committees held individually for each of our subsidiary banks in Bulgaria, Serbia and Cyprus. Participation includes both local bank and Head Office representation, including the GCRO; the committees are chaired by senior staff of the Head Office Risk Management Division.

In the context of market risks, the committees examine limit utilizations and grant approvals for limit modifications in the Interest Rate Gap and FX notional equivalent measures.

Global Markets Credit Committee (GMCC)

The Global Markets Credit Committee, jointly held by Group Risk and Global Markets, is the body responsible for the review of the Group's debt securities positions.

The Committee examines all debt securities, regardless of issuer, held in any Business Unit within the ERB Group (including both the Global Markets and Treasury General Division and the International Subsidiaries) and proceeds to decide on the following matters:

- To retain or discard corporate debt securities rated below investment grade;
- To place debt securities on watch list, classified by currency of denomination, country, ownership, tenor, degree of liquidity, sector, issuer, issuer type (Corporate or State), rating or any combination chosen. Criteria for this action may include, but are not limited to, sudden or significant economic, political, structural force major changes or increasing price volatility and credit rating changes.

5.1.3 Risk Measurement and Reporting

Market and counterparty risk measurement

This section defines the scope of the risk measurement system, in terms of positions and risk factors and sets out the standards by which market and counterparty risks are measured.

Scope of risk measurement system

All positions within the Group that are exposed to market and counterparty risks must be included within the risk measurement system. The scope of the application encompasses all units of the Group with significant market risk exposure. This includes, but is not limited to:

- ERB Athens and its subsidiaries (Equities, ERB Factoring, etc.);
- All banking businesses of our international operations;
- Associated SPVs;

Regarding market risk, the risk measurement system measures risk in the valuation of all Group's positions (securities, derivatives, core banking items) regardless of accounting treatment, arising from exposure to the following market risk factors:

- FX rates;
- interest rates - including credit spreads;
- equity prices;
- commodity prices;
- market implied volatilities of the above.

Regarding counterparty risk, the risk measurement system compares notional amounts for each counterparty classification with the established limits and aggregation rules.

Risk measures

The Bank

- uses risk measures that enable them to monitor compliance with limits agreed at Group level;
- assesses the validity of assumptions used and exactness of the underlying methodologies in terms of the usefulness of the resulting risk measures for risk control and ultimately performance measurement;
- documents the methodologies and assumptions used.

The Bank has in place a number of market and counterparty risk measures, to ensure that it is protected in both "normal" and "stressed" market conditions. These measures are monitored by GMCRS.

The list of applicable risk measures, monitored by GMCRS is as follows:

- Value at Risk (VaR) and Expected Shortfall;
- Interest rate gap;
- Net Interest Income (NII) and EVE sensitivity;
- Foreign Exchange equivalent positions;
- Potential Future Exposure;
- Exposure to the Greek Sovereign State;
- Total Country exposure;
- Exposure to Financial Institutions;
- Exposure to non-financial corporates (international) and RMBSs;
- Exposure to non-financial corporates (domestic).

5.2 Internal model - Value at Risk (VaR) model & Credit Risk (IRC)

Since 2005 the Bank is validated by the Competent Authorities to employ the internal model approach (IMA) in the calculation of regulatory capital for the trading positions of its activities in Greece. As a general rule, the trading book definition for regulatory purposes follows the respective positions' accounting treatment – i.e. the booking of a position with a Fair Value through P&L (FVPL) accounting treatment automatically signifies that the position is included in the trading book. It should be noted that all FX exposure, whether it resides in the Bank's trading or banking book, or is associated with the Bank's participations in its international subsidiaries (structural FX position), is also treated under the internal model framework.

The validation extends to the following risk types:

- General market risk (i.e. the risk associated with the movements of FX rates, interest rates, equity indices and implied volatilities);
- Specific market risk (i.e. the risk associated with the movements of credit spreads & individual equities); and
- Credit migration and default event risk; the capital associated with this type of risk in the trading book is called "Incremental Risk Charge" (IRC).

The key metric monitored by the Bank's internal models of market risk is that of Value at Risk (VaR). VaR is a statistical risk measure of the maximum loss that the Bank may, under normal market conditions, incur over a certain period of time with a certain confidence level. For example, a 99% 1 day VaR of € 1 million means that there is a 99% probability that the Bank will not lose more than € 1 million within the next day.

VaR calculation is carried out via Monte Carlo simulation, centered around the Bank's core risk engine (MSCI Risk Manager). On a daily basis, through an, automated and closely monitored process, the risk engine retrieves both the Bank's positions and the relevant market data. Volatilities and correlations are estimated from historical data time series, using an Exponentially Weighted Moving Average (EWMA) methodology. The key parameters of the EWMA (i.e. the length of observation period and the value of the decay constant λ) are specified by the user. The Monte Carlo run produces

simulated scenarios of market parameters with the desired statistical properties. For each scenario, each position is fully repriced, enabling the simulation to cover all types of nonlinear and option risks. The pricing model diversifies general and specific risk and each separate risk type is being estimated on a standalone basis; however, the total VaR figure equals their diversified aggregate. As described above, the internal model covers the following risk types:

- Interest rate risk: the risk of losses because of changes in interest rates;
- Foreign exchange risk: the risk of losses on foreign currency positions because of changes in exchange rates;
- Equity risk: the risk of losses because of changes in equity prices, equity indices and mutual funds;
- Commodity risk: the risk of losses because of changes in commodity prices;
- Volatility risk: the risk of losses on option positions because of changes in implied volatility levels;
- Inflation risk: the risk of losses of inflation linked positions because of changes in the break-even inflation levels.

The Bank employs internal models both for regulatory reporting and capital requirement calculation and for internal monitoring and management reporting of market risks. The principles underlying the two applications are similar; however, differences in the implementation exist, as shown by the summary table below:

Internal Model implementation for regulatory purposes:

Scope: Greece, Trading book & FX

Metric monitored: Value at Risk (VaR)

Confidence level: 99%

Holding period: 10 days (scaled up by the squared root of 10 from 1 day primary VaR calculation)

Methodology: Monte Carlo

Observation parameters: 1 year, unweighted observations

Number of scenarios: 5000

Internal Model implementation for Management reporting purposes:

Scope: Group, Portfolios including fair valued positions

Metric monitored: Value at Risk (VaR)

Confidence level: 99%

Holding period: 10 days (scaled up by the squared root of 10 at the risk factor level)

Methodology: Monte Carlo

Observation parameters: 6 months, EWMA parameter λ = 0.94

Number of scenarios: 2000

Since VaR constitutes an integral part of the Group's market risk control regime, VaR limits have been established for all (trading and investment portfolios, including fair valued positions) operations and actual exposure is reviewed daily by management.

Since 31.12.2011 the Bank has additionally implemented the Stressed VaR (SVaR) and Incremental Risk Charge (IRC) using the internal model as requested by Basel 2.5 framework.

Stressed VaR (SVaR) is calculated under the same assumptions as VaR (same positions / portfolios, same pricing functions, same methodology, same number of MC scenarios (5,000), same decay factor for the volatility estimate) with the only difference being the time window ("stressed period") that is used to provide the relevant volatilities. The stressed period is defined as the period for which the total VaR of the portfolio is being maximised; it should be noted that this does not mean that the stressed period also maximizes each separate risk type. The stressed period is currently re-estimated on a quarterly basis, but in case of material changes in the portfolio's composition, the calculation might be performed on an ad hoc basis.

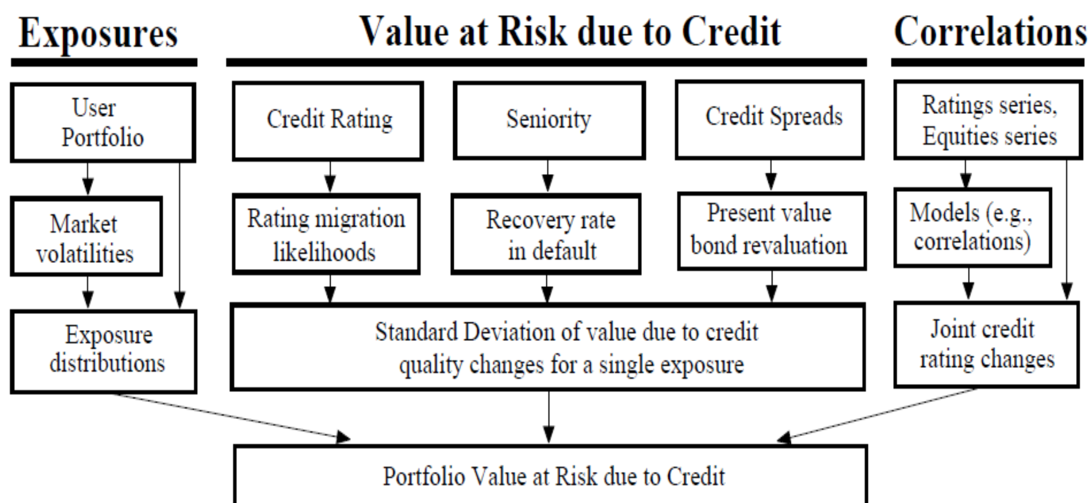
The Bank's exposure to implied volatilities is limited. Furthermore, the bank does not carry any proprietary positions on commodities.

IRC is computed on all fixed income positions in Bank's trading activities in Greece including CDS and bond futures. It estimates the default & migration risk of the trading book portfolio, using Monte Carlo simulation, to a 99.9% confidence level over a one year holding period. The model was approved by BoG on 17.5.2012.

For the calculation of IRC the Bank uses the CreditMetrics (MSCI) methodology. CreditMetrics is a methodology for assessing portfolio risk due to changes in market value caused by changes in obligor credit quality (rating migrations) or default. The methodology provides the framework for the calculation of expected losses and unexpected losses (the economic capital) which is the capital charge for credit risk in the trading book (or the incremental risk charge, IRC). CreditMetrics assesses risk within the full context of a portfolio. It addresses the correlation between default and migration events across obligors. This allows to directly calculate the diversification benefits and the effect of over-concentrations across the portfolio.

CreditMetrics looks at a horizon which is user defined and constructs a distribution of the portfolio values which are based on a user defined number of simulated credit outcomes (rating migrations and defaults). Each credit quality migration is weighted by its likelihood (which is derived from a transition matrix). Each outcome has an estimate of change in value (given by either credit spreads in case of migrations or assumptions which are based on historical studies for the recovery rates in case of default).

The framework can be summarised in the diagram below:



The modelling approach is based on a transition matrix based model.

Transition matrices are downloaded into Credit Metrics automatically and consist of the matrices as provided by Moody's, S&P & Fitch.

The Gaussian copula distribution is used as the model for the estimation of correlations between the obligors.

The Bank applies a 1 year Liquidity Horizon for IRC calculations.

This decision is based on the following criteria:

- the trading book portfolio remains limited in size during all the years after the approval of the IRC model;
- the trading book portfolio remains concentrated on GGBs and Greek corporates, without significant changes in its composition through the year.

The Bank applies a validation procedure for the Market Risk Internal Models and the IRC.

The following list represents the main tasks of the established validation process for the Market Risk Internal Model:

A1) general review of regulatory capital, positions and asset dynamics;

A2) confirmation that the appropriate scaling laws are employed in the calculations;

A3) confirmation that the correct models of asset dynamics are employed in the Interest Rate simulation;

A4) qualitative analysis on backtesting results to confirm that number of exceptions is within the limits of statistical tolerance.

The following list represents the main tasks of the established validation process for the IRC model:

A1) confirmation that the appropriate set of input market data is used;

A2) confirmation that the input market data are correct, relevant and up to date;

A3) confirmation that unrated obligors are handled correctly;

A4) confirmation that the set of position data is correct and reconciled with other sources;

A5) confirmation that the set of assumptions is reasonable and it is based on supportive analysis;

A6) confirmation that the results are reasonable and can be approximated or be explained through reasonability tests;

A7) confirmation of the PD assumptions;

A8) confirmation of the RR assumptions;

A9) review and confirmation of the approach that is used for risks not in the IRC model;

A10) review of the results of the sensitivity analysis on critical variables (PD, RR, R2, correlation).

Market Risk

The following two tables summarise the components of the capital requirement, under the IMA approach applied by the Bank.

Table 45: EU MR2-A – Market risk under the IMA

	31 December 2020		30 June 2020	
	RWAs € million	Capital requirements € million	RWAs € million	Capital requirements € million
VaR (higher of values a and b)				
Previous day's VaR (Article 365(1) of the CRR (VaRt-1))	25	2	45	4
Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR	127	10	263	21
SVaR (higher of values a and b)	-	-	-	-
Latest SVaR (Article 365(2) of the CRR (SVaRt-1))	130	10	126	10
Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)	395	32	466	37
Incremental Risk Charge -IRC (higher of values a and b)	-	-	-	-
Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR	30	2	338	27
Average of the IRC number over the preceding 12 weeks	35	3	171	14
Comprehensive risk measure (higher of values a, b and c)	-	-	-	-
Most recent risk number for the correlation trading portfolio (Article 377 of the CRR)	-	-	-	-
Average of the risk number for the correlation trading portfolio over the preceding 12 weeks	-	-	-	-
8% of the own funds requirement in the standardised approach on the most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR)	-	-	-	-
Other	-	-	-	-
Total	**558**	**45**	1.067	85

[1] The significant decrease in IRC compared to 30 June 2020 is attributed to decreased Trading Activity, mostly related to GGB bonds' position.

Table 46: EU MR2-B – RWA flow statements of market risk exposures under the IMA from 30 September 2020 to 31 December 2020.

	31 December 2020						
	VaR € million	Stressed VaR € million	IRC € million	Comprehensive risk measure € million	Other € million	Total RWAs € million	Total capital requirements € million
RWAs at 1 October 2020	154	375	142	-	-	671	54
Regulatory adjustment	-	-	-	-	-	-	-
RWAs at the previous quarter-end (end of the day)	154	375	142	-	-	671	54
Movement in risk levels	(27)	20	(107)	-	-	(113)	(9)
Model updates/changes	-	-	-	-	-	-	-
Methodology and policy	-	-	-	-	-	-	-
Acquisitions and disposals	-	-	-	-	-	-	-
Foreign exchange movements	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
RWAs at the end of the reporting period (end of the day)	127	395	35	-	-	558	45
Regulatory adjustment							
RWAs at 31 December 2020	**127**	**395**	**35**	**-**	**-**	**558**	**45**

Market Risk

The table below presents the values resulting from the different types of internal models approved to use for computing the regulatory capital charge as at 31 December 2020 and 30 June 2020.

Table 47: EU MR3 – IMA values for trading portfolios

	31 December 2020 € million	30 June 2020 € million
VaR (10 day 99%)		
Maximum value	4	5
Average value	3	4
Minimum value	1	3
Period end	2	3
SVaR (10 day 99%)		
Maximum value	12	11
Average value	10	10
Minimum value	9	10
Period end	10	10
IRC (99.9%)		
Maximum value	37	28
Average value	8	11
Minimum value	0	7
Period end	2	27
Comprehensive risk capital charge (99.9%)		
Maximum value	-	-
Average value	-	-
Minimum value	-	-
Period end	-	-

5.2.1 Stress testing

VaR models are designed to measure market risk under normal market environment. It is assumed that any changes in the risk factors follow a normal distribution. Given that the VaR approach does not cover extreme market conditions, the Group has been applying stress tests, to simulate the effect of many standard deviation movements of risk factors and the breakdown of historical correlations.

The main types of stress tests performed are subjective stress tests, where the portfolios are exposed to scenarios for risk factors that are deemed particularly relevant (depreciation of foreign currencies, yield curves parallel shifts, long term steepening, long term flattening, 10σ upward shift, credit spread increase, equities prices reduction and implied volatilities adverse moves).

Stress tests that are applied to the IRC modelling parameters consist of:

- Sensitivity on the percentage on systematic factor;
- Sensitivity on pair-wise obligor correlation;
- Sensitivity on PDs;
- Sensitivity on LGDs.

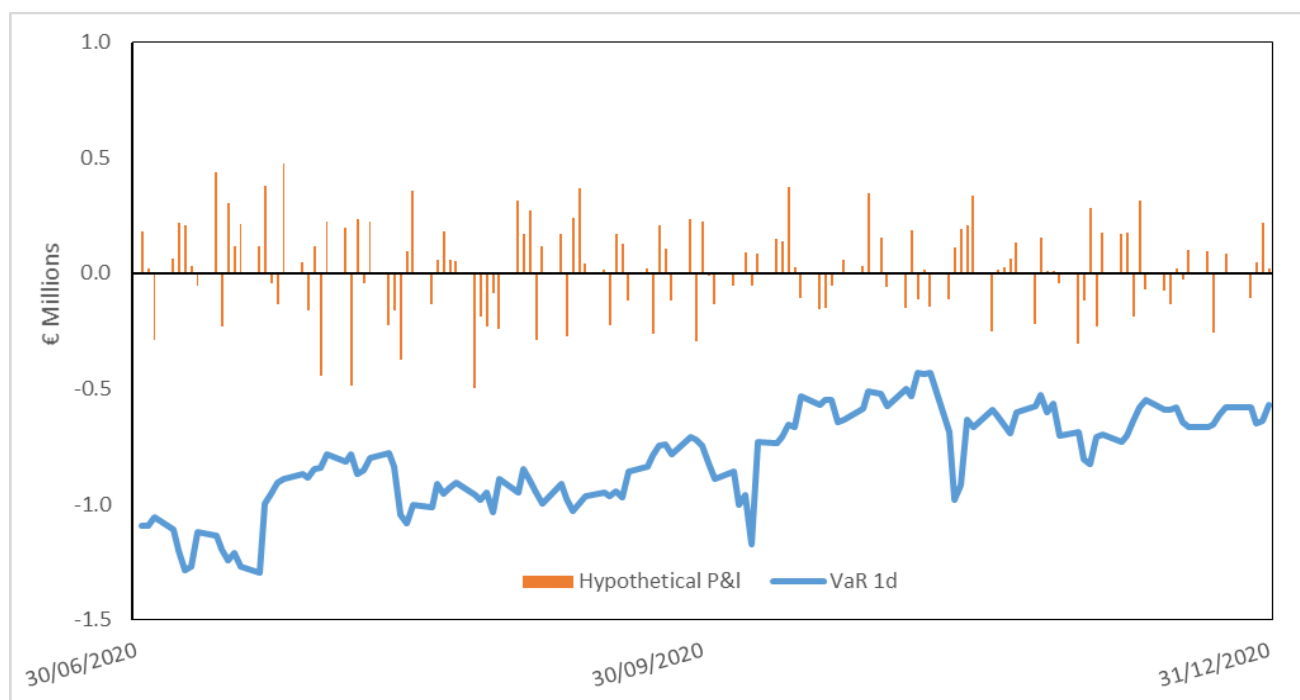
5.2.2 Back testing

The Bank employs back testing controls in order to test the calibration and predictive capabilities of its internal risk assessment model. Back testing is applied through comparison of daily VaR readings, estimated at a 99% confidence level, to the portfolio's value changes. Two types of Back testing are being defined. In the first one, the Hypothetical, the portfolio changes are produced within the risk engine under the same assumptions as VaR and SVaR, i.e. the same positions, the same pricing functions and the same Market Data. In the second type, the Actual, the portfolio changes are calculated by the front office system of the Bank, using the same pricing functions and pricing quotes and Market Data that are used in the Bank's official accounting entries.

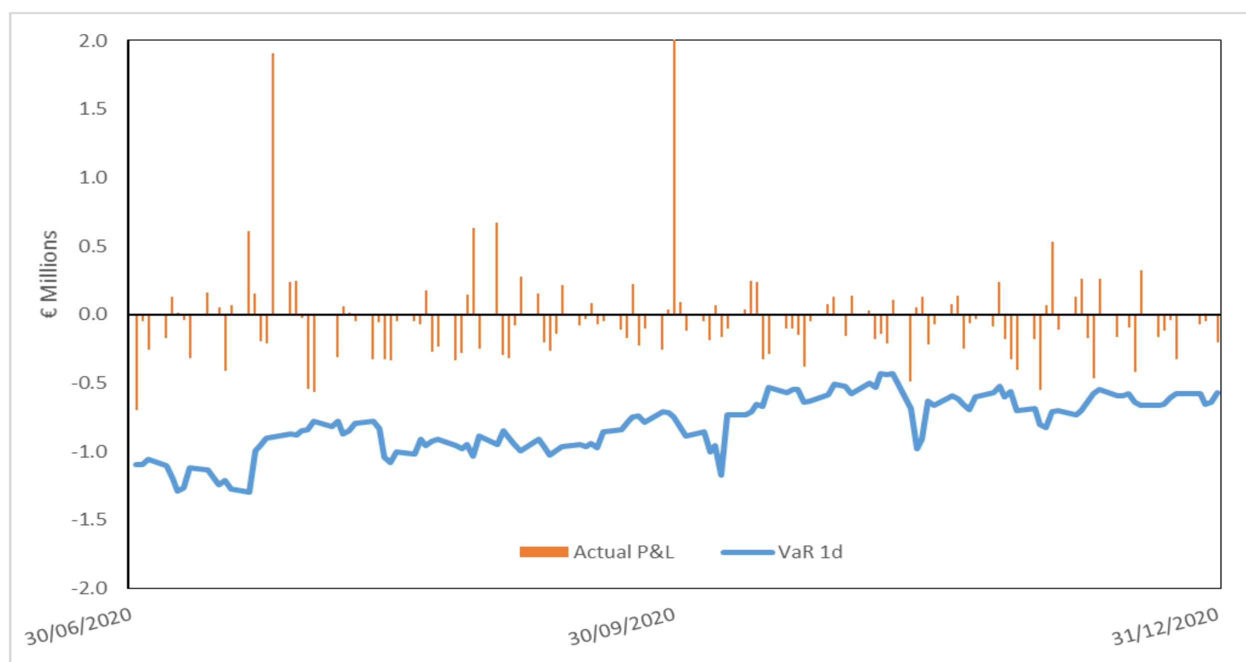
Back testing for H2 2020 has revealed, as shown in the graphs below, no (0) exceptions out of a total of 128 working days, when comparing the VaR forecast to both the Hypothetical as well as the Actual P&L. Totally as of 2020, back testing has revealed no[1] (0) exceptions out of 250 working days, when comparing the VaR forecast to both the Hypothetical as well as Actual P&L. According to the regulatory framework, this number of exceptions results to a multiplier equal to 3 for capital adequacy calculations for market risk.

Following the Targeted Review of Internal Models (TRIM), which was executed back in 2017, the Bank has provided its remediation plan and has taken the appropriate actions until November 2020, addressing all the TRIM obligations. The Bank has received in February 2021 the ECB's "*Decision on additional supervisory measures regarding the use of the internal models approach for calculating own funds requirements for market risk",* regarding the use of the internal models approach for calculating own funds requirements (OFR) for Market Risk. Based on this Decision, taking into account the material submitted by the Bank and all the actions taken, in response to the TRIM findings and stemming obligations, the regulatory multiplier (used for the calculations of market risk OFR) has been increased by 0.25 (an additional 0.25 over the outstanding regulatory multiplier mentioned above).

Table 48: EU MR4 – Comparison of VaR estimates with gains/losses



[1] *The exact number of overshootings throughout 2020 stood at 2, both for Actual and Hypothetical PnL (recorded on 12th and 17th March of 2020), related to the extreme movements observed in the markets, due to Covid 19 pandemic. Based on the Decision of the Governing Council of ECB ("Decision regarding the exclusion of overshootings from the calculation of the back-testing addend"), the ECB has assessed the root causes of these overshootings, being related to abrupt market movements, without detecting any model deficiency and has therefore excluded them.*



5.3 Standardised approach for market risk

The Bank uses the Standardised approach for the measurement of market risk exposure and capital requirements of its subsidiaries in Greece and in International operations. The following table summarises the capital requirements for market risk per risk factor, based on the Standardised approach, as at 31 December 2020 and 30 June 2020.

Table 49: EU MR1 – Market risk under the standardised approach

	31 December 2020		30 June 2020	
	RWAs € million	**Capital requirements € million**	RWAs € million	Capital requirements € million
Outright products				
Interest rate risk (general and specific)	7	1	8	1
Equity risk (general and specific)	7	1	5	-
Foreign exchange risk	240	19	300	24
Commodity risk	-	-	-	-
Options				
Simplified approach	-	-	-	-
Delta-plus method	-	-	-	-
Scenario approach	-	-	-	-
Securitisation (specific risk)	-	-	-	-
Total	**254**	**21**	313	25

5.4 Equity exposures not included in the trading book

The Group may make an irrevocable election to designate an equity instrument at fair value through other comprehensive income (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 de-recognised, are recorded in other comprehensive income (OCI) and are not subsequently reclassified to the income statement. Dividends received are recorded in the income statement.

Equity instruments measured at fair value through profit or loss (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.

The following table presents equity holdings of non trading book portfolio and included in regulatory exposures as at 31 December 2020 and 2019:

	2020 € million	2019 € million
Held for:		
Strategic investments	28	23
Equity investments for capital appreciation	96	108
Total	**124**	131
Listed	7	14
Non-listed	56	50
Other (MF & other type of funds)	61	67
Total	**124**	131

5.5 Interest rate risk in the Banking Book

With regards to the estimation of the Interest Rate Risk in the Banking Book (IRRBB), the Bank uses methodologies for the estimation of risk from positions at fair value (VaR approach) and also methodologies for the estimation of risk on EVE (Economic Value of Equity) and on NII, taking into account all Banking Book positions (including AC portfolios).

Regarding positions at fair value, the Bank calculates and monitors the interest rate risk for the Bank's operations in Greece, and for its Subsidiary Banks on a daily basis, using the internal VaR model. The perimeter of the calculation includes the HFT, FVTPL and FVOCI portfolios. For these portfolios the VaR provides an estimation of the potential losses from Trading & Banking Book positions measured at fair value that will affect directly the Bank's Capital (income statement or equity). It should be mentioned that the exposure on Trading Book positions is limited and the Banking Book positions at fair value (booked in FVOCI) determined the VaR figure as of end of 2020 and during the year.

The analysis takes into account all assets, liabilities and off balance sheet items, which are sensitive to interest rates. The following table presents the EOY 2019 and EOY 2020 interest rate VaR estimation and the average in 2020.

Interest Rate Risk measured using VaR by risk type, Greece and International Subsidiaries[(1)]

	2020 (Average) € million	2020 € million	2019 € million
Interest Rate Risk	70	12	44

[(1)] Includes all portfolios measured at fair value.

The largest portion of the Group's Interest Rate VaR is attributable to the risk associated with interest rate and credit spread sensitive debt securities and derivatives. The average VaR of 2020 is significantly larger than end of year 2019 and 2020 figures, since it incorporates the impact of the Covid 19 pandemic, which resulted to a significant market disruption, mainly in March and April of 2020. The market volatility has gradually decreased, after April 2020, reaching its lowest levels at the end of the year.

The VaR that the Group measures for position measured at fair value is based on a 99% confidence level and a holding period of 1 day. The methodology used for the calculation is Monte Carlo simulation (full re-pricing approach).

In addition to the VaR estimation, the Bank uses internal reports for the monitoring of the Interest Rate Risk in the Banking Book (IRRBB) taking into account FVOCI and AC portfolios (loans, deposits and debt securities), including: Interest rate repricing analysis, sensitivity of NII and sensitivity of Bank's EVE (Economic Value of Equity) on multiple scenarios of interest rates. For the calculation of these sensitivities, specific assumptions are made regarding the applicable duration (for EVE delta calculations) and pass-through rate (for NII delta calculations) on specific parts of the Group's Balance Sheet (for example for sight deposits and other Non-Maturing Deposits, NMDs). These assumptions are based on historical observations processed using statistical analysis or are based on studies that summarize the IRRBB practices in the European level.

The following table summarizes the most important and meaningful metrics that are used internally by the Group for the monitoring of IRRBB.

NII sensitivity	31 December 2020 € million 1 year impact
Scenario	
Parallel Up	188
Parallel Down	(73)

EVE sensitivity	31 December 2020				
Scenario	Total € million	EUR € million	USD € million	CHF € million	OTHER € million
Parallel Up	601	594	(22)	30	(1)
Steepener	(291)	(258)	(17)	(14)	(1)
Flattener	307	286	2	21	(2)

The scenarios defined as per EBA/GL/2018/02 are used.

6. Counterparty risk

6.1 Definition, Governance and Policies

Counterparty risk is the risk that a counterparty in an off balance sheet transaction (i.e. derivative transaction) defaults prior to maturity and the Bank has a claim over the counterparty (the market value of the contract is positive for the Bank). The governance and the policies for the counterparty risk are described in one section (section 5.1) that provides details for the governance and policies that the Bank applies together for the market and the counterparty risk.

6.2 Mitigation of counterparty risk

To reduce the exposure towards single counterparties, risk mitigation techniques are used. The most common is the use of closeout netting agreements (usually based on standardised ISDA contracts), which allow the bank to net positive and negative replacement values in the event of default of the counterparty.

Furthermore, the Bank also applies margin agreements (CSAs) in case of counterparties. Thus, collateral is paid or received on a daily basis to cover current exposure. In case of repos and reverse repos the Bank applies netting and daily margining using standardised GMRA contracts.

6.3 Counterparty risk monitoring

The Bank monitors the counterparty risk arising from derivatives and secured financing transactions and assess the impact of netting and collateral on current exposures and own funds requirements. Monitoring includes, among other things, breakdown of exposures per counterparty type and exposure class, analysis of collateral quality and composition, and, review of counterparty credit-worthiness. Additionally, to the netting agreements, the Bank uses clearing though CCPs and other forms of mitigation, including CDS, to reduce, or eliminate, the counterparty risk.

6.4 Wrong way risk

The Bank prevents the initiation of derivative transactions in cases that the value of the underlying instrument is highly correlated with the credit quality of the counterparty.

6.5 Implications under rating downgrade

The Bank's financial collateral agreements (CSAs covering derivative transactions) with other banks contain in some cases rating triggers. For these agreements, the minimum exposure level (threshold amount) for further posting of collateral will be lowered in case of a downgrading. Given the Bank's current rating, the additional effect is immaterial.

6.6 Credit derivatives

As of 31 December 2020 the Group held a small number of positions on credit default swaps (bought protection € 175 million Notional). This protection is bought mainly against exposure to financial institutions (€ 125 million Notional) and against credit indices (€ 50 million Notional). As of 30 June 2020 the Group held a number of positions on credit default swaps (bought protection € 231 million Notional, sold protection € 27 million Notional) on credit indices.

The Bank does not have any brokerage activity in this market. Furthermore, the Bank does not hedge its loan portfolio with CDSs as this market in Greece is not developed.

Table 54: EU CCR6 – Credit derivatives exposures

	31 December 2020		
	Credit derivative hedges		
	Protection bought € million	Protection sold € million	Other credit derivatives € million
Notionals			
Single-name credit default swaps	125	-	-
Index credit default swaps	50	-	-
Total return swaps	-	-	-
Credit options	-	-	-
Other credit derivatives	-	-	-
Total notionals	**175**	**-**	**-**
Fair values			
Positive fair value (asset)	-	-	-
Negative fair value (liability)	2	-	-

	30 June 2020		
	Credit derivative hedges		
	Protection bought € million	Protection sold € million	Other credit derivatives € million
Notionals			
Single-name credit default swaps	-	-	-
Index credit default swaps	231	27	-
Total return swaps	-	-	-
Credit options	-	-	-
Other credit derivatives	-	-	-
Total notionals	231	27	-
Fair values			
Positive fair value (asset)	-	-	-
Negative fair value (liability)	1	-	-

6.7 Counterparty risk based on the calculation methodology employed

The following table provides the exposure to counterparty risk based on the calculation methodology employed as at 31 December 2020 and 30 June 2020.

Table 55 EU CCR1 – Analysis of CCR exposure by approach

	31 December 2020						
	Notional € million	Replacement cost/current market value € million	Potential future credit exposure € million	EEPE € million	Multiplier € million	EAD post CRM € million	RWAs € million
Mark to market		1.801	252			2.052	192
Original exposure							
Standardised approach							
IMM (for derivatives and SFTs)							
Of which securities financing transactions							
Of which derivatives and long settlement transactions							
Of which from contractual cross- product netting							
Financial collateral simple method (for SFTs)							
Financial collateral comprehensive method (for SFTs)						3.472	232
VaR for SFTs							
Total		**1.801**	**252**			**5.524**	**424**

	30 June 2020						
	Notional € million	Replacement cost/current market value € million	Potential future credit exposure € million	EEPE € million	Multiplier € million	EAD post CRM € million	RWAs € million
Mark to market		1.680	218			1.891	139
Original exposure							
Standardised approach							
IMM (for derivatives and SFTs)							
Of which securities financing transactions							
Of which derivatives and long settlement transactions							
Of which from contractual cross- product netting							
Financial collateral simple method (for SFTs)							
Financial collateral comprehensive method (for SFTs)						2.683	395
VaR for SFTs							
Total		1.680	218			4.574	534

6.8 CVA capital charge

The following table provides the CVA capital charge which is calculated through the standardised approach as at 31 December 2020 and 30 June 2020.

Table 56: EU CCR2 – CVA capital charge

	31 December 2020		30 June 2020	
	Exposure value € million	**RWAs € million**	Exposure value € million	RWAs € million
Total portfolios subject to the advanced method	-	-	-	-
(i) VaR component (including the 3× multiplier)	-	-	-	-
(ii) SVaR component (including the 3× multiplier)	-	-	-	-
All portfolios subject to the standardised method	96	72	120	86
Based on the original exposure method	-	-	-	-
Total subject to the CVA capital charge	**96**	**72**	120	86

6.9 Exposures to CCPs

The following table provides the exposures to CCPs and the corresponding RWAs as at 31 December 2020 and 30 June 2020.

Table 57: EU CCR8 – Exposures to CCPs

	31 December 2020		30 June 2020	
	EAD post CRM € million	RWAs € million	EAD post CRM € million	RWAs € million
Exposures to QCCPs (total)	**67**	**1**	**65**	1
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	67	1	65	1
(i) OTC derivatives	67	1	65	1
(ii) Exchange-traded derivatives	-	-	-	-
(iii) SFTs	-	-	-	-
(iv) Netting sets where cross-product netting has been approved	-	-	-	-
Segregated initial margin	-		-	
Non-segregated initial margin	-	-	-	-
Prefunded default fund contributions	-	-	-	-
Alternative calculation of own funds requirements for exposures		-		-
Exposures to non-QCCPs (total)	-	-	-	-
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	-	-	-	-
(i) OTC derivatives	-	-	-	-
(ii) Exchange-traded derivatives	-	-	-	-
(iii) SFTs	-	-	-	-
(iv) Netting sets where cross-product netting has been approved	-	-	-	-
Segregated initial margin	-		-	
Non-segregated initial margin	-	-	-	-
Prefunded default fund contributions	-	-	-	-
Unfunded default fund contributions	-	-	-	-

6.10 Standardised approach – CCR exposures by regulatory portfolio and risk

The following table presents the CCR exposures by regulatory portfolio and risk as at 31 December 2020 and 30 June 2020.

Table 58: EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk

	31 December 2020												
	Risk weight											Total	Of which unrated
Exposure classes	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	€ million	€ million
Central governments or central banks	4.044	-	-	-	-	-	-	-	-	-	-	4.044	-
Regional government or local authorities	-	-	-	-	-	-	-	-	-	-	-	-	-
Public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-
Multilateral development banks	59	-	-	-	-	-	-	-	-	-	-	59	-
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	-	67	-	-	1.215	-	-	-	-	6	-	1.288	-
Corporates	-	-	-	-	-	-	-	-	7	-	-	7	7
Retail	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-
Other items	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**4.103**	**67**	**-**	**-**	**1.215**	**-**	**-**	**-**	**7**	**6**	**-**	**5.398**	**7**

	30 June 2020												
	Risk weight											Total	Of which unrated
Exposure classes	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	€ million	€ million
Central governments or central banks	4.052	-	-	-	-	-	-	-	-	-	-	4.052	-
Regional government or local authorities	-	-	-	-	-	-	-	-	-	-	-	-	-
Public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-
Multilateral development banks	51	-	-	-	-	-	-	-	-	-	-	51	-
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	-	65	-	-	1.305	-	-	-	-	8	-	1.378	9
Corporates	-	-	-	-	-	-	-	-	2	-	-	2	2
Retail	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-
Other items	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4.103	65	-	-	1.305	-	-	-	2	8	-	5.483	11

6.11 IRB approach – CCR exposures by portfolio and PD scale

The following table presents the CCR exposures by portfolio and PD scale as at 31 December 2020 and 30 June 2020.

Table 59: EU CCR4 – IRB approach – CCR exposures by portfolio and PD scale

		31 December 2020						
	PD scale	**EAD post CRM**	**Average PD**	**Number of Obligors**	**Average LGD**	**Average maturity**	**RWAs**	**RWA density**
		€ million	**%**		**%**	**yrs**	**€ million**	**%**
IRB Foundation Exposures to Corporates	0.00 to <0.15	3	0,1%	6	45,0%	3	1	27,6%
	0.15 to <0.25	12	0,2%	18	45,0%	3	6	48,8%
	0.25 to <0.50	-	0,0%	-	45,0%	3	-	0,0%
	0.50 to <0.75	29	0,6%	14	45,0%	3	23	79,2%
	0.75 to <2.50	3	1,4%	31	45,0%	3	4	103,4%
	0.75 to <2.50	2	4,7%	30	45,0%	3	3	145,7%
	10.00 to <100.00	2	27,1%	25	45,0%	3	4	211,8%
	100.00 (Default)	-	100,0%	1	45,0%	3	-	0,0%
	Subtotal	**51**	**1,6%**	**125**	**45,0%**	**3**	**41**	**77,4%**
	Total all Foundation IRB	**51**	**1,6%**	**125**	**45,0%**	**3**	**41**	**77,4%**

		30 June 2020						
	PD scale	EAD post CRM	Average PD	Number of Obligors	Average LGD	Average maturity	RWAs	RWA density
		€ million	%		%	yrs	€ million	%
IRB Foundation Exposures to Corporates	0.00 to <0.15	1	0,0%	9	45,0%	3	-	16,7%
	0.15 to <0.25	11	0,2%	6	45,0%	3	5	49,0%
	0.25 to <0.50	-	0,0%	-	45,0%	3	-	0,0%
	0.50 to <0.75	29	0,6%	15	45,0%	3	23	77,2%
	0.75 to <2.50	2	1,5%	29	45,0%	3	3	107,7%
	0.75 to <2.50	1	4,7%	20	45,0%	3	1	142,4%
	10.00 to <100.00	2	27,4%	23	45,0%	3	5	213,1%
	100.00 (Default)	-	100,0%	1	45,0%	3	-	0,0%
	Subtotal	46	1,9%	103	45,0%	3	37	78,6%
	Total all Foundation IRB	46	1,9%	103	45,0%	3	37	78,6%

6.12 RWA flow statements of CCR exposures under IMM

Table EU CCR7 – RWA flow statements of CCR exposures under the IMM is not included as the Bank does not use an internal model for the calculation of the RWAs of CCR exposures.

6.13 Impact of netting and collateral held on exposure values

The following table presents the Impact of netting and collateral held on exposure values as at 31 December 2020 and 30 June 2020.

Table 60: EU CCR5-A – Impact of netting and collateral held on exposure values

	31 December 2020				
	Gross positive fair value or net carrying amount € million	**Netting benefits € million**	**Netted current credit exposure € million**	**Collateral held € million**	**Net credit exposure € million**
Derivatives	2.573	750	1.824	1.676	151
SFTs	318	24	294	11	283
Cross-product netting	-	-	-	-	-
Total	**2.891**	**774**	**2.118**	**1.687**	**434**

	30 June 2020				
	Gross positive fair value or net carrying amount € million	Netting benefits € million	Netted current credit exposure € million	Collateral held € million	Net credit exposure € million
Derivatives	2.574	715	1.860	1.956	164
SFTs	375	2	373	1	372
Cross-product netting	-	-	-	-	-
Total	2.949	717	2.233	1.958	536

Notes :

1. Netting and collateral posting is applied only for contracts under ISDA, CSA or GMRA.
2. Repo and reverse repos with Central Banks (Bank of Greece, European Central Bank, etc.) are excluded.
3. In case of exposure calculation on SFTs, haircuts are taken into account and increase the exposure.
4. In the "Collateral held" we include Greek Treasury bills received as collateral through the CSA signed with Public Debt Management Agency (PDMA).

6.14 Composition of collateral for exposures to CCR

The following table provides the Composition of collateral for exposures to CCR, at 31 December 2020 and 30 June 2020.

Table 61: EU CCR5-B – Composition of collateral for exposures to CCR

	31 December 2020					
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated € million	Unsegregated € million	Segregated € million	Unsegregated [(1)] € million	€ million	€ million
Cash-domestic currency	-	18	-	2.423	10	-
Cash-other currencies	-	2	-	79	1	-
Domestic sovereign debt	-	1.656	-	-	-	-
Other sovereign debt	-	-	-	-	-	-
Government agency debt	-	-	-	-	-	-
Corporate bonds	-	-	-	-	-	-
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	**-**	**1.676**	**-**	**2.502**	**11**	**-**

	30 June 2020					
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated € million	Unsegregated € million	Segregated € million	Unsegregated € million	€ million	€ million
Cash-domestic currency	-	18	-	2.740	1	3
Cash-other currencies	-	-	-	72	-	-
Domestic sovereign debt	-	1.939	-	-	-	-
Other sovereign debt	-	-	-	-	-	-
Government agency debt	-	-	-	-	-	-
Corporate bonds	-	-	-	-	-	-
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	-	1.957	-	2.812	1	3

7. Operational Risk

7.1 Governance

Operational risk is embedded in every business activity undertaken by the Group. The primary goal of operational risk management is to ensure the integrity of the Group's operations and its reputation by mitigating its impact. However, by nature, it cannot be fully eliminated. To best manage operational risk, the Group has established a formal Operational Risk Management Framework to define its approach to identifying, assessing, managing, monitoring and reporting operational risk.

Governance responsibility for operational risk management stems from the Board of Directors (BoD) through the Executive Board and Senior Management to the Heads and staff of every business unit. The BoD establishes the mechanisms by which the Group manages operational risk by setting the tone and expectations from the top and delegating authority. The Board Risk Committee (BRC) and the Audit Committee (AC) monitor the operational risk level and profile of the Group including the level of operational losses, their frequency and severity.

The Group Chief Risk Officer is responsible for the operational risk related initiative and ensures implementation of the Operational Risk Management Framework. The Group Chief Risk Officer has the overall responsibility and oversight of the Operational Risk Units in the countries that the Bank operates. The Operational Risk Committee is a management committee that assesses the operational risks arising from the activities of the Group, ensures that each business entity has appropriate policies and procedures for the control of its operational risk and that prompt corrective action is taken whenever a high risk area is identified.

Group Operational Risk Sector (GORS) is responsible for establishing and maintaining the Group's Operational Risk Management Framework and for operational risk oversight. An Operational Risk Unit operates in every subsidiary of the Group, being responsible for implementing the Group's operational risk framework. GORS is responsible for:

- Defining the methodology for the identification, assessment and reporting of operational risk;
- Implementing regulatory requirements and Group guidelines;
- Monitoring the operational risk level and profile and reporting thereon to the BRC; and
- Defining and applying the methodology for the calculation of the regulatory capital charge for operational risk.

The Heads of each business and functional unit (risk owners) have the primary responsibility for the day-to-day management of operational risk arising in their units and for the adherence to relevant controls. To this end, every business unit:

- Identifies, evaluates and monitors its operational risks and implements risk mitigation controls and techniques;
- Assesses the efficiency of control mechanism;
- Reports all relevant issues; and
- Has access and uses the common methods and tools introduced by the GORS, to facilitate in identifying, evaluating and monitoring of operational risk.

Each Business Unit has appointed an Operational Risk Partner (OpRisk Partner) or an Operational Risk Management Unit (ORMU), depending on the size of the Business Unit, who is responsible for coordinating the internal operational risk management efforts of the Business Unit, while acting as a liaison to the Group Operational Risk Sector and the local Operational Risk Unit.

Certain Business Units have established a dedicated Anti-Fraud Unit/Operation taking into account the fraud risk to which they are exposed to. Their main objective is to continuously identify fraud risk and to undertake all required actions to address and mitigate this risk in a timely manner.

7.2 Operational risk management framework

The Group Operational Risk Framework is built on four elements:

- Principles
- Governance and Organization
- Processes
- Infrastructure

The operational risk management framework and related policies are designed to:

- To align Bank's organization and processes with best international banking practices;
- Introduce risk identification quantification and monitoring processes such as risk and control self-assessment, key risk indicators, historic risk events collection and scenario analysis;
- Establish a common definition and consistent approach for operational risk to enable common identification and aggregation of operational risk across the Bank;
- Establish a proactive operational risk management culture across our business, linking business operations with the objectives of risk control;
- Establish comprehensive and integrated operational risk reporting;
- Adhere to the Group guidelines and meet local regulatory requirements and practices relating to operational risk of the jurisdictions in which Eurobank operates;
- Achieve a competitive advantage in terms of operational risk management through risk-based decision making; and
- Leverage international knowledge and good practices on operational risk management.

Operational risk processes consist of risk identification, assessment (including measurement and valuation), control management, risk mitigation, risk reporting and performance improvement. These processes are supported by and implemented with the operational risk tools/methods, which are the following:

- **Risk & Control Self-Assessment (RCSA)**
  RCSA is a team-based technique aiming to identify, assess and ultimately mitigate operational risk. Its outcome is a portfolio of operational risks per business unit, summarised into operational risk profiles. Business units assess operational risks, evaluate the effectiveness of controls in place, assess whether identified risks are within business risk appetite tolerance levels and establish specific action plans to mitigate the assessed exposure.
- **Key Risk Indicators (KRIs)**
  KRIs are metrics based on historical data and are relevant to specific and measurable activities indicating operational risk exposures. KRIs are quantifiable and expressed as an amount, a percentage or a ratio, assigned to specific operational risks and linked with risk tolerance.
- **Operational Risk Events**
  Operational Risk Events are identified and reported with the purpose of populating the internal operational risk events database. Operational risk events are classified according to their owner, cause, risk category, impact, business function and business line.
- **Operational Risk Scenarios**
  Operational Risk Scenario analysis assesses the exposure to a range of significant operational risks through the examination of extreme or catastrophic yet plausible future events. Scenarios take into account the current and projected business, economic, social and geo-political environment.
- **Operational Risk Reporting**
  Operational risk reports are produced for internal and regulatory purposes.
- **Operational Risk Management and Mitigation**

The primary strategy utilised by the Group to control its exposure to operational risk is the maintenance of an effective control environment. In addition, the Group implements specific risk mitigation activities for key operational risks, including fraud, outsourcing, cyber risk and business disruption risks. Finally, risk transfer mechanisms are in place in the form of the Group's insurance policies, bought through the London Market, covering its operations.

- **Operational Risk Culture**
  Operational Risk Culture encompasses employee risk awareness as well as the attitude and behavior of employees to the taking of appropriate risk and the adherence to controls. A strong Operational Risk Culture underpins all operational risk management activity. The Group continuously seeks to improve its Operational Risk Culture.
- **Fraud Risk Management**

  Fraud risk management constitutes a major commitment of the Group to mitigate fraud risk and reduce fraud losses.

7.3 Operational risk capital requirements calculation

As required by Basel III for the use of the Standardised Approach, the Group's business activities have been divided into eight business lines and the annualised gross operating income for 2018, 2019 and 2020 is calculated for each business line. The required business line beta factors are then applied to the relevant business line gross operating income, to establish the required regulatory capital per business line; with these numbers summed together to establish the overall Pillar 1 regulatory capital requirements for operational risk.

8. Asset Encumbrance

8.1 Information on importance of encumbrance

The Bank uses the following main types of encumbrance:

i) secured funding through Eurosystem (ECB's Main Refinancing Operations (MRO)/Targeted Long Term Refinancing Operations (TLTRO)), for this funding the Bank mainly uses as collateral: own issued retained Covered Bonds, eligible loans and other eligible debt securities;

ii) secured funding with interbank counterparties backed with retained own covered bonds, GGBs, Greek Corporate & foreign sovereign bonds and own securitisations (the senior tranches);

iii) covered bonds issuance backed with mortgage loans, sold to international and domestic investors; and

iv) securitisations issuance backed with loans sold to international and domestic investors.

As at end of year2020 the Group's secured funding from Eurosystem sources (ECB's MRO/TLTRO) remained at the same level (€ 8.02 billion) as in June 2020.

The encumbrance of assets and the encumbrance of assets received by the group as collateral is a centralised function and it is implemented by Eurobank, Greece.

The level of secured funding (repos with foreign counterparties) in subsidiaries is immaterial.

As of end of year 2020 the over-collateralization ((market value over funding value) in case of secured funding through repos and ECB was 18% and 31% respectively.

For the interbank secured funding (repos), the Bank uses the standard terms of the GMRA (Global Master Repurchase Agreement). According to this contract, the exposure between the Bank and its counterparty is calculated on a daily basis and collateral is posted to or received by the counterparty so that the exposure remains almost zero.

8.2 Assets

Table 62: EU AE1 – Encumbered and unencumbered assets

	31 December 2020							
	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
		of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Assets of the reporting institution	16,051				51,311			
Equity instruments	-				134			
Debt securities	4,852	4,515	5,164	4,750	3,882	3,281	3,439	2,784
of which: covered bonds	32	32	32	32	307	294	308	292
of which: asset-backed securities	2	1	2	1	68	23	68	23
of which: issued by general governments	4,142	4,121	4,405	4,400	3,235	2,837	2,782	2,342
of which: issued by financial corporations	361	190	361	190	470	279	472	277
of which: issued by non-financial corporations	384	165	384	165	248	162	248	162
Other assets	10,951	-			47,301	-		
of which: Loans and advances other than loans on demand	7,895	-	-	-	32,658	-	-	-

Asset encumbrance

	30 June 2020							
	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
		of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Assets of the reporting institution	15,396				51,008			
Equity instruments	-				130			
Debt securities	5,159	4,698	5,298	4,925	4,083	3,181	3,659	2,750
of which: covered bonds	50	50	50	50	185	185	186	186
of which: asset-backed securities	1	1	1	1	73	25	73	25
of which: issued by general governments	4,442	4,421	4,588	4,567	3,482	2,992	3,061	2,561
of which: issued by financial corporations	342	210	334	209	395	167	391	167
of which: issued by non-financial corporations	376	164	376	164	207	93	207	93
Other assets	10,237				46,794			
of which: Loans and advances other than loans on demand	7,144	-	-	-	32,786	-	-	-

(1) *The values in these tables are the median of quarterly data points in the year.*

8.3 Collateral received

Table 63: EU AE2 - Collateral received and own debt securities issued

	31 December 2020				30 June 2020			
			Unencumbered				Unencumbered	
	Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Collateral received by the reporting institution								
Loans on demand	-	-	-	-	-	-	-	-
Equity instruments	-	-	-	-	-	-	-	-
Debt securities	1.868	1.868	1.129	1.040	2.184	2.184	891	835
of which: covered bonds	-	-	-	-	-	-	-	-
of which: asset-backed securities	-	-	-	-	-	-	-	-
of which: issued by general governments	1.868	1.868	1.074	1.040	2.184	2.184	835	835
of which: issued by financial corporations	-	-	26	-	-	-	26	-
of which: issued by non-financial corporations	-	-	29	-	-	-	29	-
Loans and advances other than loans on demand	-	-	-	-	-	-	-	-
Other collateral received	-	-	-	-	-	-	-	-
Own debt securities issued other than own covered bonds or asset-backed securities	-	-	-	-	-	-	-	-
Own covered bonds and asset-backed securities issued and not yet pledged			733	-			1.394	-
TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	17.608	-			17.698	-		

(1) *The values in these tables are the median of quarterly data points in the year.*

8.4 Encumbered assets/collateral received and associated liabilities

Table 64: EU AE3 - Sources of encumbrance

	31 December 2020		30 June 2020	
	Matching liabilities, contingent liabilities or securities lent € million	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered € million	Matching liabilities, contingent liabilities or securities lent € million	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered € million
Carrying amount of selected financial	12,766	17,608	12,778	17,698
of which: Central Bank	8,004	10,669	5,359	7,643

[1] The values in these tables are the median of quarterly data points in the year.

9. Leverage Ratio

The new regulatory framework has introduced the leverage ratio as a non-risk based measure which is intended to restrict the build-up of excessive leverage from on and off balance sheet items in the banking sector.

The leverage ratio is defined as Tier 1 capital divided by the total exposure measure.

The bank submits to the regulatory authorities the leverage ratio on quarterly basis and monitors the level and the factors that affect the ratio.

The level of the leverage ratio with reference date 31.12.2020 on consolidated basis was at 8.81% (30.09.2020: 8.21%), according to the transitional definition of Tier 1 capital, significantly over the 3% minimum threshold applied by the competent authorities.

In the table below, the detailed disclosures on the Group's leverage ratio are presented with reference date 31 December 2020 and 30 September 2020.

Table 65: EU LR1 - LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

	31 December 2020	30 September 2020
	€ million	€ million
Total assets as per published financial statements	67.728	67.454
Adjustment for entities which are consolidated for accountng puroses but are outside the scope of regulatory consolidation	-	-
Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting frameworkbut excluded from the leverage ratio exposure measure to article 429(11)of Regulation (EU)NO 575/2013	-	-
Adjustments for derivative financial instruments	(410)	(362)
Adjustments for securities financing transactions	1.195	1.154
Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	1.963	1.832
(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	-	-
(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)	(6.238)	(5.206)
Other adjustments	(604)	(984)
Total leverage ratio exposure	**63.634**	63.888

Leverage Ratio

Table 66: EU LR2 - LRCom: Leverage ratio common disclosure

	31 December 2020 CRR leverage ratio exposures € million	30 September 2020 CRR leverage ratio exposures € million
On - balance sheet exposures (excluding derivatives and SFT's)		
On-balance sheet items (excluding derivatives and SFT's, but including collateral)	64.753	64.105
Asset amounts deducted in determining Tier I capital	(180)	(137)
Total on-balance sheet exposures (excluding derivatives and SFT's)	**64.573**	63.968
Derivative exposures		
Replacement cost associated with derivatives transactions	1.821	1.847
Add-on amounts for PPE associated with derivatives transactions	320	293
Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-	-
(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-	-
(Exempted CCP leg of client-cleared trade exposures)	-	-
Adjusted effective notional amount of written credit derivatives	-	-
(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-	-
Total derivative exposures	**2.141**	2.140
Securities financing transaction exposures		
Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	-	-
(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
Counterparty credit risk exposure for SFT assets	1.194	1.154
Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	-	-
Agent transaction exposures	-	-
(Exempted CCP leg of client-cleared SFT exposure)	-	-
Total securities financing transaction exposures	**1.194**	1.154
Off-balance sheet exposures		
Off-balance sheet exposures of gross notional amount	5.613	5.463
Adjustments for conversion to credit equivalent amounts [1]	(3.650)	(3.631)
Total off-balance sheet exposures	**1.963**	1.832
Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance		
(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	-	-
(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	(6.238)	(5.206)
Capital and Total Exposures		-
Tier I capital	5.604	5.248
Total leverage ratio exposures	63.634	63.888
Leverage Ratio		
Leverage Ratio	**8,81%**	8,21%
Choise on transitional arrangements and amount of derecognised fidiciary items	-	-
Choice on transitional arrangements for the definition of capital measure	**Transitional**	Transitional
Amounts of derecognised fiduciary items in accordance with the Article 429(11) of Regulation (EU) NO 575/2013		

[1] *Total off-balance sheet items exposures presented in accordance with Article 111 (1) of Regulation (EU) No 575/2013 (standardised approach).*

Leverage Ratio

Table 67: EU LR3 - LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

	31 December 2020	30 September 2020
	CRR leverage ratio exposures € million	CRR leverage ratio exposures € million
Total on-balance sheet exposures (excluding derivatives and SFT'S) of which:	58.515	58.899
Trading book exposures	-	-
Banking book exposures of which:	58.515	58.899
Covered bonds	376	397
Exposures treated as sovereigns	12.912	13.075
Exposures to regional goverments,MOB, international organisations and PSE NOT treates as sovereigns	-	-
Institutions	3.792	4.202
Secured by mortgages of immovable properties	10.743	10.745
Retail exposures	4.940	4.873
Corporate	14.946	14.830
Exposure in default	2.443	2.534
Other exposures (eg equity, securitisations and other non-credit obligation assets)	8.363	8.244

10. Liquidity Risk

The Group is exposed on a daily basis to events that affect the level of its available cash resources due to deposits withdrawals, maturity of medium or long term notes and 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) and on risk mitigation contracts (CSAs, GMRAs) result in liquidity exposure. The Group maintains cash resources to meet all of these needs. The Board Risk Committee (BRC) sets liquidity limits to ensure that sufficient funds are available to meet such contingencies.

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

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

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

Liquidity Risk Management Framework

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

(a) BRC's role is to approve all strategic liquidity risk management decisions and monitor the quantitative and qualitative aspects of liquidity risk;
(b) Group Assets and Liabilities Committee has the mandate to form and implement the liquidity policies and guidelines in conformity with Group's risk appetite and to review at least monthly the overall liquidity position of the Group;
(c) Group Treasury is responsible for the implementation of the Group's liquidity strategy, the daily management of the Group’s liquidity and for the preparation and monitoring of the Group’s liquidity budget;
(d) Group Market and Counterparty Risk Sector is responsible for the measuring, monitoring and reporting of the liquidity risk of the Group.

The Bank as per ECB, EBA & BoG directives applies risk management policies, processes and controls regarding, Asset Encumbrance / Liquidity Buffers and Collateral Management, Contingency Funding Plan (CFP), Intraday Liquidity Risk Management and Liquidity Stress Tests. These policies, processes and controls along with the liquidity governance are described in the ILAAP (Internal Liquidity Adequacy Assessment Process).

These policies, processes and controls are applicable in the specific Greek macro-economic environment, Banks’ business model and market conditions on wholesale funding.

Liquidity Buffer

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

(a) Cash and balances with central banks;

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

(c) Interbank placings maturing within one month.

The unutilised assets, containing highly liquid and central banks eligible assets, provide a contingent liquidity reserve of € 18.0 billion as at 31 December 2020 (2019: € 17.4 billion). In addition, the Group holds other types of highly liquid assets, as defined by the regulator, amounting to € 2.1 billion (cash value) (2019: € 1.5 billion). It should be noted that a part of ECB's available collateral of € 4.1 billion (cash value) (2019: € 3.5 billion) is held by Group's subsidiaries for which temporary local regulatory restrictions are applied and currently limit the level of its transferability between group entities.

The Group increased the long-term funding from the ECB entering into the new TLTRO III (ECB funding increased from €1.9 billion as of YE 2019 to €8.02 billion as of YE 2020 - which consists entirely from TLTRO funding). Moreover, inflows mainly from deposits (+ €2.4 billion in 2020 on a group level) along with the utilization of the collateral easing measures as introduced by ECB in response to the Covid-19 outbreak (mainly the Additional Credit Claims – ACC – framework), significantly contributed to the formation of HQLAs buffer and to the significant increase of the Liquidity Coverage Ratio (LCR) within 2020 both on solo and on group level.

LCR calculations

LCR as of YE 2020 is equal to 123.7% on a group level.

The next table presents the key components of group's LCR, as per the respective guidelines on LCR disclosure (EBA/GL/2017/01). It should be noted that the data points used in the calculations below, refer to the period after the restoration of the LCR above the minimum regulatory threshold (100%).

Liquidity Risk

The table below shows the level and components of the Liquidity Coverage Ratio.

Table 68: LIQ1 – Liquidity Coverage ratio

		Total unweighted value		Total weighted value	
	Quarter ending on	**31 December 2020 € million**	**30 September 2020 € million**	**31 December 2020 € million**	**30 September 2020 € million**
	Number of data points used in the calculation of averages	**7**	**4**	**7**	**4**
	HIGH-QUALITY LIQUID ASSETS				
1	**Total high-quality liquid assets (HQLA)**			**7.233**	**6.793**
	CASH-OUTFLOWS				
2	**Retail deposits and deposits from small business customers, of which:**	**26.365**	**25.833**	**1.594**	**1.555**
3	Stable deposits	21.315	20.993	1.066	1.050
4	Less stable deposits	5.050	4.840	528	505
5	**Unsecured wholesale funding**	**11.095**	**10.736**	**4.770**	**4.503**
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	1.356	1.303	330	315
7	Non-operational deposits (all counterparties)	9.665	9.433	4.367	4.188
8	Unsecured debt	73	0	73	0
9	**Secured wholesale funding**			**78**	**61**
10	Additional requirements	**2.241**	**2.238**	**687**	**709**
11	Outflows related to derivative exposures and other collateral requirements	539	559	539	559
12	Outflows related to loss of funding on debt products	0	0	0	0
13	Credit and liquidity facilities	1.702	1.679	148	150
14	**Other contractual funding obligations**	78	95	69	86
15	**Other contingent funding obligations**	2.862	2.848	199	196
16	**TOTAL CASH OUTFLOWS**			**7.397**	**7.110**
	CASH-INFLOWS				
17	Secured lending (eg reverse repos)	1.090	988	0	0
18	Inflows from fully performing exposures	1.076	1.032	923	891
19	Other cash inflows	1.472	1.456	314	304
20	**TOTAL CASH INFLOWS**	**3.638**	**3.476**	**1.238**	**1.195**
EU-20c	***Inflows Subject to 75% Cap***	***3.638***	***3.476***	***1.238***	***1.195***
				TOTAL ADJUSTED VALUE	
21	**LIQUIDITY BUFFER**			**7.233**	**6.793**
22	**TOTAL NET CASH OUTFLOWS**			**6.160**	**5.915**
23	**LIQUIDITY COVERAGE RATIO (%)**			**117,43%**	**114,84%**

Appendix 1: Transitional Own Funds disclosure

		31 December 2020 Current period € million	31 December 2020 Full impact € million	31 December 2019 Current period € million	31 December 2019 Full impact € million
Common Equity Tier 1 (CET1) Capital: instruments and reserves					
1	Capital instruments and the related share premium accounts	8,870	8,870	8,906	8,906
2	Retained earnings	(12,266)	(12,266)	(11,054)	(11,054)
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	8,640	8,641	8,813	8,813
5	Minority interests (amount allowed in consolidated CET1)	-	-	-	-
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**5,244**	**5,245**	6,665	6,665
Common Equity Tier 1 (CET1) capital: regulatory adjustments					
7	Additional value adjustments due to the prudent valuation (negative amount)	(10)	(10)	(10)	(10)
8	Intangible assets (net of related tax liability) (negative amount)	(182)	(182)	(378)	(378)
9	Part of interim or year-end profit not eligible	-	-	-	-
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	(2)	(2)	(2)	(2)
11	Fair value reserves related to gains or losses on cash flow hedges	49	49	42	42
12	Negative amounts resulting from the calculation of expected loss amounts	(170)	(2)	(105)	(2)
20	Adjustments due to IFRS 9 transitional arrangements	849	-	897	-
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in art. 38 (3) are met) (negative amount)	(158)	(303)	(179)	(304)
24	Value adjustments due to the Irrevocable payment commitments	(16)	(16)	(13)	(13)
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**360**	**(466)**	252	(667)
29	**Common Equity Tier 1 (CET1) capital**	**5,604**	**4,779**	6,917	5,998
Additional Tier 1 (AT1) capital: instruments					
30	Capital instruments and the related share premium accounts	-	-	-	-
36	**Additional Tier 1 (AT1) capital instruments before regulatory adjustments**	**-**	**-**	-	-
Additional Tier 1 (AT1) capital: regulatory adjustments					
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	-	-	-	-
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**-**	**-**	-	-
44	**Additional Tier 1 (AT1) capital**	**-**	**-**	-	-
45	**Tier 1 capital (T1 = CET1 + AT1)**	**5,604**	**4,779**	6,917	5,998
Tier 2 (T2) capital: instruments and provisions					
46	Capital instruments and the related share premium accounts	950	950	950	950
50	Credit risk adjustments	-	96	97	102
51	**Tier 2 (T2) capital before regulatory adjustments**	**950**	**1,046**	1,047	1,052
Tier 2 (T2) capital: regulatory adjustments					
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**-**	**-**	-	-
58	**Tier 2 (T2) capital**	**950**	**1,046**	1,047	1,052
59	**Total Capital (TC = T1 + T2)**	**6,554**	**5,825**	7,964	7,050
60	**Total risk weighted assets**	**40,237**	**39,975**	41,407	41,122

Appendix 1: Transitional own funds disclosure

		31 December 2020 Current period € million	31 December 2020 Full impact € million	31 December 2019 Current period € million	31 December 2019 Full impact € million
Capital ratios and buffers					
61	Common Equity Tier 1	**13.9%**	**12.0%**	16.7%	14.6%
62	Tier 1	**13.9%**	**12.0%**	16.7%	14.6%
63	Total capital	**16.3%**	**14.6%**	19.2%	17.1%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G_SII or O-SII buffer), expressed as a percentage of risk exposure amount)	9.24%	9.24%	10.34%	10.34%
65	of which: capital conservation buffer requirement	2.50%	2.50%	2.50%	2.50%
66	of which: countercyclical buffer requirement	0.05%	0.05%	0.09%	0.09%
67	of which: systemic risk buffer requirement	0.00%	0.00%	0.00%	0.00%
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0.50%	0.50%	0.25%	0.25%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	**8.3%**	**6.6%**	11.2%	9.1%
Amounts below the thresholds for deduction (before risk weighting)					
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions	77	77	72	72
73	Direct and indirect holdings by the institution of CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	190	190	145	145
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in 38 (3) are met)	508	508	710	630
Applicable caps on the inclusion of provisions on Tier 2					
76	Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	-	-	-	-
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	242	242	243	243
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	-	96	97	102
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	96	96	102	102
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)					
80	Current cap on CET1 instruments subject to phase out arrangements	-	-	-	-
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-	-	-	-
82	Current cap on AT1 instruments subject to phase out arrangements	0%	-	0%	-
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	-	-	-
84	Current cap on T2 instruments subject to phase out arrangements	0%	-	0%	-
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	-	-	-

Appendix 2: Capital instruments' main features disclosure

1	Issuer	**Eurobank Ergasias Services and Holdings S.A**	**Eurobank Ergasias Services and Holdings S.A**
2	Unique identifier	GRS323003012	ISIN Code: XS1752439411
3	Governing law(s) of the instrument	Greek	English law, with the exception of Condition 3B *(Status-Subordinated Instruments)* and Condition 22 *(Bank Holders' Agent)* which are governed by the laws of the Hellenic Republic and Regulation No.575/2013 (CRR) and Condition 23 (Acknowledgement of Statutory Loss Absorption Powers).
	Regulatory treatment		
4	Transitional CRR rules	Common Equity Tier 1	Tier2
5	Post- transitional CRR rules	Common Equity Tier 1	Tier2
6	Eligible at solo/(sub-) consolidated/solo & (sub-) consolidated	Solo & Consolidated	Solo & Consolidated
7	Instrument type (types to be specified by each jurisdiction)	Ordinary shares	Tier 2 Subordinated Capital Instrument (Art.63 of the CRR)
8	Amount recognised in regulatory capital as at 31 December 2020	€ 815 million	N/A - The instruments were Issued in January 2018
9	Nominal amount of instrument	€ 0.22 per ordinary share (at date) / € 816 million	950.000.000
9a	Issue price	-	100%
9b	Redemption price	-	Redemption at par (100 per cent of nominal amount) together with interest accrued up to (but excluding) the date of redemption
10	Accounting classification	Shareholders Equity	Liability - amortised cost
11	Original date of issuance	Various	17 January 2018
12	Perpetual or dated	Perpetual	Dated
13	Original maturity date	-	17 January 2028
14	Issuer call subject to prior supervisory approval	NA	Yes
15	Optional call date, contingent call dates and redemption amount	NA	First date of call: 17 January 2023. The instruments have also a Tax and Capital Disqualification Event call (Art.78(4) of CRR).In both cases, the instruments may be redeemed in whole but not in part. Redemption at par together with interest accrued.
16	Subsequent call dates, if applicable	NA	Optional subsequent call dates: Any day after 17 January 2023.Tax and Capital Disqualification Event call : at any time
	Coupon / dividends	NA	
17	Fixed or floating dividend/coupon	NA	Fixed
18	Coupon rate and any related index	NA	6,41%
19	Existence of a dividend stopper	NA	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Partially discretionary	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Partially discretionary	Mandatory
21	Existence of step up or other incentive to redeem	No	No
22	Noncumulative or cumulative	Non cumulative	Noncumulative
23	Convertible or non-convertible	Non convertible	Non-convertible
24	If convertible, conversion trigger(s)	NA	N/A
25	If convertible, fully or partially	NA	N/A
26	If convertible, conversion rate	NA	N/A
27	If convertible, mandatory or optional conversion	NA	N/A
28	If convertible, specify instrument type convertible into	NA	N/A
29	If convertible, specify issuer of instrument it converts into	NA	N/A
30	Write-down features	No	Yes
31	If write-down, write-down trigger(s)	NA	Statutory & Condition 23 (Acknowledgement of Statutory Loss Absorption Powers) , Bank of Greece
32	If write-down, full or partial	NA	Fully or partially
33	If write-down, permanent or temporary	NA	Permanent
34	If temporary write-down, description of write-up mechanism	NA	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Additional Tier I	Immediately subordinate to the claims of Senior Creditors (as defined in Condition 3B)
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	N/A

Appendix 3: List of Abbreviations

Abbreviation	Definition
ABSs	Asset Backed Securities
A-IRB	Advanced Internal Rating Based Approach
AQR	Asset Quality Review
AT1	Additional Tier 1
BoD	Board of Directors
BoG	Bank of Greece
BRC	Board Risk Committee
BRRD	Bank Recovery and Resolution Directive
CCB	Capital Conservation Buffer
CCyB	Counter Cyclical Buffer
CCF	Credit Conversion Factor
CCP	Central Counterparty
CCR	Counterparty Credit Risk
CET1	Common equity Tier 1
COREPs	Common Reports
CRD IV	Capital Requirements Directive IV
CRR	Capital Requirements Regulation
CRR2	Capital Requirements Regulation II
CSA	Credit Support Annex
CVA	Credit Value Adjustment
DoD	Definition of Default
EAD	Exposure At Default
EBA	European Banking Authority
ECAIs	External Credit Assessment Institutions
ECB	European Central Bank
ECL	Expected Credit Loss
F-IRB	Foundation Internal Rating Based Approach
GCRO	Group Chief Risk Officer
GGBs	Greek Government Bonds
GMCRS	Group Market & Counterparty Risk Officer
GMRA	Global Master Repurchase Agreement
HQLA	High Quality Liquid Assets.
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
IMA	Internal Model Approach
IRB	Internal Ratings Based Approach
IRR	IRR Interest Rate Risk
IRRBB	Interest Rate risk in the Banking Book
IRC	Incremental Risk Charge
ISDA	International Swaps and Derivatives Association
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
MRA	Moody's Risk Advice
MREL	Minimum Requirement for own funds and Eligible Liabilities
MRO	Main Refinancing Operations
NPV	Net Present Value
PD	Probability of Default
RBA	Ratings Based Approach
RCSA	Risk & Control Self-Assessment
RSS	Remedial & Servicing Strategy Sector
RWAs	Risk Weighted Assets
SA	Standard Approach
SEC-ERBA	Securitisation-External Ratings Based Approach
SFTs	Securities Financing Transactions
SREP	Supervisory Review and Evaluation Process
SRF	Single Resolution Fund
ST	Stress Test
SSM	Single Supervisory Fees
TLTRO	Targeted Long Term Refinancing Operations
TTC	Through The Cycle
VAR	Value at Risk

Appendix 4: Guidelines and Regulations mapping on Disclosures Requirements

	EBA/GL/2016/11	
LI1	Differences between accounting and regulatory scopes of consolidation and mapping of financial statements categories with regulatory risk categories	*Table 3*
LI2	Main sources of differences between regulatory exposure amounts and carrying amounts in financial statements	*Table 4*
LI3	Outline of the differences in the scopes of consolidation (entity by entity)	*Table 1*
INS1	Non-deducted participations in insurance undertakings	*Table 11*
OV1	Overview of RWAs	*Table 10*
CRB-B	Net amount of exposures	*Table 12*
CRB-C	Geographical breakdown of exposures	*Table 13*
CRB-D	Concentration of exposures by industry or counterparty type	*Table 14*
CRB-E	Maturity of exposures	*Table 15*
CR1-A	Credit quality of exposures by exposure classes and instruments	*Table 16*
CR2-A	Changes in stock of general and specific credit risk adjustments	*Table 17*
CR2-B	Changes in stock of defaulted and impaired loans and debt securities	*Table 18*
CR3-CRM	Credit risk mitigation techniques - IRB and SA	*Table 42*
CR4	Credit risk exposure and CRM effects (IRB & Standardised approach)	*Table 32*
CR5	Standardised approach (including a breakdown of exposures post conversion factor and post mitigation techniques)	*Table 33*
CR6	Exposure to Credit risk by porfolio and PD interval	*Table 36*
CR7	Effect on RWA of credit derivatives used as CRM techniques	*Table 41*
CR8	Exposures to central counterparties	*Table 38*
CR9	Backtesting PD by geography and porfolio	*Table 35*
CR10-A / CR10-B	Specialised lending & equities	*Table 37 & 39*
CCR1	Analysis of the counterparty credit risk (CC) exposure by approach	*Table 55*
CCR2	Credit valuation adjustment (CVA) capital charge	*Table 56*
CCR3	Standardised approach – CCE exposures by regulatory portfolio and risk	*Table 58*
CCR4	IRB approach. CCR exposures by portfolio and PD scale	*Table 59*
CCR5-A	Impact of netting and collateral held on exposure values	*Table 60*
CCR5-B	IRB approach. Composition of collateral for exposures to counterparty credit risk	*Table 61*
CCR6	Credit derivatives exposures	*Table 54*
CCR8	Exposures to central counterparties	*Table 57*
MR1	Market risk under standardised approach	*Table 49*
MR2-A	Market risk under IMA approach	*Table 45*
MR2-B	WA flow statements of market risk exposures under IMA	*Table 46*
MR3	VaR, Stressed VaR and IRC by geography	*Table 47*
MR4	Comparison of VaR estimates with gains/losses	*Table 48*

	REVISED PILLAR 3 DISCLOSURES REQUIREMENTS - BCBS	
KM1	Key metrics	*Table 2*
SEC3	Securitisation exposures in the banking book and associated regulatory capital requirements (bank acting originator or sponsor)	*Table 43*
SEC4	Securitisation exposures in the banking book and associated regulatory capital requirements (bank acts as an investor)	*Table 44*

Appendix 4: Guidelines and Regulations mapping on Disclosures Requirements

	GUIDELINES ON LCR DISCLOSURE - EBA/GL/2017/01	
LCR	LCR disclosure template	*Table 68*

	GUIDELINES ON DISCLOSURE OF ENCUMBERED AND UNENCUMBERED ASSETS - EBA/GL/2014/03	
AE1	Encumbered and unencumbered assets	*Table 62*
AE2	Collateral received and own debt securities issued	*Table 63*
AE3	Sources of encumbrance	*Table 64*

	LEVERAGE RATIO - COMMISSION IMPLEMENTING REGULATION (UE) 2016/200	
LRSum	Summary reconciliation of accounting assets and leverage ratio exposures	*Table 65*
LRCom	Leverage ratio common disclosure Appendix X	*Table 66*
LRSpl	Split-up of on balance sheet exposures (excluding derivatives and SFTs)	*Table 67*

	OWN FUNDS REQUIREMENTS - COMMISSION IMPLEMENTING REGULATION (UE) 1423/2013	
	Transitional Own Funds disclosure	*Appendix 1*
	Capital instruments'f main features	*Template 2*

	COUNTERCYCLICAL CAPITAL BUFFER - COMMISSION IMPLEMENTING REGULATION (UE) 2015/1555	
CCyB1	Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital	*Table 7*
CCyB21	Amount of institution-specific countercyclical capital buffer	*Table 8*

	GUIDELINES ON UNIFORM DISCLOSURES UNDER ARTICLE 473A OF REGULATION (EU) NO 575/2013 AS REGARDS THE TRANSITIONAL PERIOD FOR MITIGATING THE IMPACT OF THE INTRODUCTION OF IFRS 9 ON OWN FUNDS - EBA/GL/2018/01	
IFRS 9-FL	Comparison of equity, capital ratios and leverage of entities with or with out the application of the transitional arrangements of IFRS 9 or analog ECL	*Table 6*

	GUIDELINES ON DISCLOSURE OF NON-PERFORMING AND FORBORNE EXPOSURES - EBA/GL/2018/10	
	Credit quality of forborne exposures	*Table 19*
	Quality of forbearance	*Table 24*
	Credit quality of performing and non-performing exposures by past due days	*Table 20*
	Performing and non-performing exposures and related provisions.	*Table 21*
	Quality of Non-performing exposures by geography	*Table 22*
	Credit quality of loans and advances by industry	*Table 23*
	Collateral valuation - Loans and advances at cost or amortised cost	*Table 25*
	Changes in the stock of non-performing loans and advances	*Table 26*
	Collateral obtained by taking possession and execution processes	*Table 27*
	Collateral obtained by taking possession and execution processes – Vintage breakdown	*Table 28*

	Legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis EBA/GL/2020/02	
COVID_1	Information on loans and advances subject to legislative and non-legislative moratoria	*Table 29*
COVID_2	Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria	*Table 30*
COVID_3	Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis	*Table 30*