



NATIONAL BANK  
OF GREECE

# **Pillar III Disclosures on a consolidated basis**

---

## **December 2021**

## Table of Contents

<b>INDEX OF TABLES .....</b>	<b>4</b>
<b>1 INTRODUCTION &amp; GENERAL INFORMATION .....</b>	<b>6</b>
1.1 PILLAR III DISCLOSURE POLICY .....	7
<b>2 REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS .....</b>	<b>8</b>
2.1 REGULATORY FRAMEWORK.....	8
2.1.1 The Main Pillars .....	8
2.1.2 EU package of Risk Reduction Measures: CRR2 / CRD5 / BRRD2 / SRMR2 .....	8
2.2 REGULATORY DEVELOPMENTS 2021 .....	9
2.2.1 Banking Sector in the post COVID-19 era .....	9
2.2.2 Supervisory Priorities for 2022-2024 .....	9
2.2.3 Capital .....	10
2.2.4 Basel III / Basel IV .....	11
2.2.5 Credit Risk.....	11
2.2.6 Reporting and Disclosure.....	12
2.2.7 EU-wide Stress Test .....	13
2.2.8 Market Risk.....	14
2.2.9 Operational Risk .....	14
2.2.10 ESG Risks.....	14
2.2.11 Recovery & Resolution .....	17
2.2.12 Cyber Risks & Digital euro.....	18
2.2.13 Governance and Remuneration .....	18
<b>3 NBG'S TRANSFORMATION PROGRAM .....</b>	<b>20</b>
<b>4 RISK MANAGEMENT FRAMEWORK .....</b>	<b>21</b>
4.1 BASIC PRINCIPLES AND GOVERNANCE STRUCTURE OF THE GROUP RISK MANAGEMENT .....	21
4.2 CREDIT RISK.....	38
4.2.1 Credit granting processes and controls .....	38
4.2.2 Credit Policy for Corporate Portfolios .....	38
4.2.3 Credit Policy for Retail Banking .....	38
4.2.4 Concentration Risk.....	39
4.3 COUNTERPARTY CREDIT RISK.....	39
4.4 MARKET RISK.....	39
4.5 OPERATIONAL RISK.....	40
4.5.1 Introduction.....	40
4.5.2 Definition and objectives .....	41
4.5.3 Operational risk management framework .....	41
4.5.4 Governance.....	41
4.6 ANALYSIS AND REPORTING.....	42
<b>5 REGULATORY OWN FUNDS &amp; PRUDENTIAL REQUIREMENTS .....</b>	<b>43</b>
5.1 RECONCILIATION OF REGULATORY OWN FUNDS TO BALANCE SHEET IN THE AUDITED FINANCIAL STATEMENTS.....	44
5.2 BALANCE SHEET RECONCILIATION BETWEEN FINANCIAL AND REGULATORY REPORTING.....	45
5.3 REGULATORY VS ACCOUNTING CONSOLIDATION .....	47
5.4 STRUCTURE OF OWN FUNDS .....	48

5.5	IFRS 9 IMPACT ON OWN FUNDS.....	50
5.6	DTC LAW .....	51
5.7	TRANSITIONAL OWN FUNDS DISCLOSURE TEMPLATE .....	51
5.8	CAPITAL REQUIREMENTS UNDER PILLAR I .....	54
5.9	OVERALL CAPITAL REQUIREMENT (OCR).....	55
5.10	MREL REQUIREMENTS .....	56
5.11	LEVERAGE RATIO.....	57
<b>6</b>	<b>CREDIT RISK .....</b>	<b>59</b>
6.1	DEFINITIONS AND GENERAL INFORMATION .....	59
6.2	IMPAIRMENT - EXPECTED CREDIT LOSSES.....	59
6.3	MATURITY CLASSIFICATION OF CREDIT EXPOSURES.....	60
6.4	COVID-19 REPORTING .....	61
6.5	NON-PERFORMING AND FORBORNE EXPOSURES .....	64
6.5.1	<i>Disposal of NPE portfolios .....</i>	<i>64</i>
6.6	CREDIT RISK MITIGATION TECHNIQUES.....	75
6.7	PORTFOLIOS UNDER THE STANDARDISED APPROACH .....	76
<b>7</b>	<b>COUNTERPARTY CREDIT RISK.....</b>	<b>80</b>
<b>8</b>	<b>MARKET RISK.....</b>	<b>84</b>
8.1	STRESS TESTING .....	86
8.2	BACK TESTING .....	87
<b>9</b>	<b>OPERATIONAL RISK.....</b>	<b>88</b>
<b>10</b>	<b>EQUITY EXPOSURES NOT INCLUDED IN THE TRADING BOOK .....</b>	<b>89</b>
<b>11</b>	<b>SECURITIZATION .....</b>	<b>90</b>
<b>12</b>	<b>INTEREST RATE RISK IN THE BANKING BOOK .....</b>	<b>94</b>
<b>13</b>	<b>LIQUIDITY RISK .....</b>	<b>96</b>
<b>14</b>	<b>ASSET ENCUMBRANCE.....</b>	<b>102</b>
14.1	INFORMATION ON IMPORTANCE OF ENCUMBRANCE .....	102
<b>15</b>	<b>REMUNERATION POLICIES &amp; PRACTICES.....</b>	<b>105</b>
15.1	THE PROPORTIONALITY PRINCIPLE .....	105
15.2	HUMAN RESOURCES AND REMUNERATION COMMITTEE .....	105
15.3	REMUNERATION POLICY .....	106
15.4	BANK UNITS.....	107
15.5	REMUNERATION POLICY GOVERNANCE.....	107
15.6	MAIN CHARACTERISTICS OF THE REMUNERATION SYSTEM OF THE BANK ACCORDING TO THE BANK'S REMUNERATION POLICY.....	107
15.6.1	<i>Remuneration structure.....</i>	<i>107</i>
15.6.2	<i>Criteria used for determining variable remuneration .....</i>	<i>108</i>
15.6.3	<i>Risk alignment of remuneration .....</i>	<i>108</i>
15.7	ADJUSTMENT / DEFERRAL / RETENTION/ CLAW BACK OF VARIABLE REMUNERATION .....	108
15.8	PAYMENT / VESTING .....	108
15.9	REMUNERATION OF SENIOR MANAGEMENT .....	108
15.10	DIRECTORS' REMUNERATION.....	109
15.11	AGGREGATE QUANTITATIVE INFORMATION ON REMUNERATION .....	110

## Index of tables

Table 1: Material Risk Types/Themes & their treatment.....	26
Table 2: Risk Types.....	28
Table 3: Green Bonds.....	36
Table 4: Article 10, par 3 requirements .....	36
Table 5: EU KM1 – Key metrics template.....	43
Table 6: EU CC2- Reconciliation of regulatory own funds to balance sheet in the audited financial statements .....	44
Table 7: EU LI1 - Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories .....	45
Table 8: EU LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements .....	46
Table 9: EU LI3 - Outline of the differences in the scope of consolidation .....	47
Table 10: Own Funds Structure .....	48
Table 11: EU CCA - Capital Instruments main features .....	49
Table 12: IFRS 9 impact.....	50
Table 13: EU CC1 - Transitional Own Funds 31.12.2021 .....	52
Table 14: EU OV1 - Overview of RWAs .....	54
Table 15: EU CCyB2 - Amount of institution-specific countercyclical capital buffer.....	55
Table 16: EU CCyB1 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer 31.12.2021 ...	56
Table 17: Leverage ratio .....	57
Table 18: EU LR1, LRSum – Summary reconciliation of accounting assets and leverage ratio exposures as of 31.12.2021 and 30.06.2021....	57
Table 19: EU LR3, LRSpI – Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) as of 31.12.2021 compared to 30.06.2021 .....	57
Table 20: EU LR2, LRCom –Leverage ratio common disclosure 31.12.2021 .....	58
Table 21: EU CR1 A – Maturity of exposures 31.12.2021 .....	60
Table 22 : Information on loans and advances subject to legislative and non-legislative moratoria 31.12.2021 .....	61
Table 23 : Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria 31.12.2021 .....	62
Table 24 : Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis 31.12.2021.....	63
Table 25: EU CQ1 - Credit quality of forborne exposures 31.12.2021 .....	65
Table 26: EU CQ2 - Quality of forbearance 31.12.2021 and 30.06.2021 .....	65
Table 27: EU CQ3 - Credit quality of performing and non-performing exposures by past due days 31.12.2021 .....	66
Table 28: EU CR1 - Performing and non-performing exposures and related provisions 31.12.2021.....	68
Table 29: EU CQ4 - Quality of non-performing exposures by geography 31.12.2021 .....	70
Table 30: EU CQ5 - Credit quality of loans and advances by industry 31.12.2021.....	71
Table 31: EU CQ6 - Collateral valuation - loans and advances 31.12.2021.....	72
Table 32: EU CR2 - Changes in the stock of non-performing loans and advances 31.12.2021 .....	73
Table 33: EU CR2a - Changes in the stock of non-performing loans and advances and related net accumulated recoveries 31.12.2021.....	73
Table 34: EU CQ7 - Collateral obtained by taking possession and execution processes 31.12.2021.....	74
Table 35: EU CQ8 - Collateral obtained by taking possession and execution process - vintage breakdown 31.12.2021 .....	74
Table 36 : EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques 31.12.2021 .....	75
Table 37: EU CR4 - Standardised approach - Credit Risk Exposure and CRM effects 31.12.2021 .....	76
Table 38: Mapping of Credit quality steps .....	76
Table 39 : EU CR5 - Standardised approach 31.12.2021 .....	77
Table 40: EU CCR1 - Analysis of CCR exposure by approach (€ mio) 31.12.2021.....	80
Table 41: EU CCR2 – CVA capital charge (€ mio) 31.12.2021.....	81
Table 42: EU CCR8 – Exposures to CCPs (€ mio) 31.12.2021 .....	81
Table 43: EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (€ mio) 31.12.2021 .....	82
Table 44: EU CCR5 – Composition of collateral for CCR exposures (€ mio) 31.12.2021 .....	83
Table 45: EU CCR6 - Credit derivatives exposures (€ mio) 31.12.2021 .....	83
Table 46: EU MR1 – Market risk under the Standardized approach (€ mio) 31.12.2021 and 30.06.2021.....	84



Table 47: EU MR2-A – Market risk under the IMA (€ mio) 31.12.2021 .....	85
Table 48: EU MR2-B – RWA flow statements of market risk exposures under the IMA (€ mio) 31.12.2021 .....	85
Table 49: EU MR3 – IMA values for trading portfolios (€ mio) 31.12.2021 .....	86
Table 50: Stress test Scenarios .....	86
Table 51: Volatility stress test Scenarios .....	86
Table 52: EU OR1 – Operational Risk Own Funds requirements and risk weighted exposure amounts (€ mio) 31.12.2021 .....	88
Table 53: FVTOCI Equity instruments 31.12.2021 .....	89
Table 54: EU SEC1 - Securitisation exposures in the non-trading book (€ mio) 31.12.2021 .....	93
Table 55: EU SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor (€ mio) 31.12.2021 .....	93
Table 56: EU SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments (€ mio) 31.12.2021 .....	93
Table 57: Sensitivity of EVE and NII measures 31.12.2021 .....	94
Table 58: Comparison of EVE and NII sensitivity measures between 31.12.2021 and 31.12.2020 .....	95
Table 59: EU LIQ1 - Quantitative Information of Liquidity Coverage Ratio 2021 .....	98
Table 60: EU LIQ2 - Net Stable Funding Ratio 31.12.2021 .....	100
Table 61: EU AE1 - Encumbered and unencumbered assets 31.12.2021 .....	102
Table 62: EU AE2 - Collateral received 31.12.2021 .....	103
Table 63: EU AE3 - Sources of encumbrance 31.12.2021 .....	104
Table 64: Board HRRC Members .....	106
Table 65: EU REM1 - Remuneration awarded for the financial year 31.12.2021 .....	111
Table 66: EU REM5 - Information on remuneration of staff whose professional activities have a material impact on institutions' risk profile (identified staff) 31.12.2021 .....	111

## INTRODUCTION &amp; GENERAL INFORMATION

## 1 INTRODUCTION & GENERAL INFORMATION

National Bank of Greece (the “Bank” or “NBG”) is a financial institution subject to Greek and EU banking legislation. It was founded in 1841 and operated both as a commercial bank and as the official state currency issuer until 1928, when Bank of Greece was established. NBG has been listed on the Athens Stock Exchange since 1880.

The Bank focuses on complying fully with the regulatory requirements and ensures that these requirements are strictly and consistently met in all countries where NBG Group (the “Group”) operates.

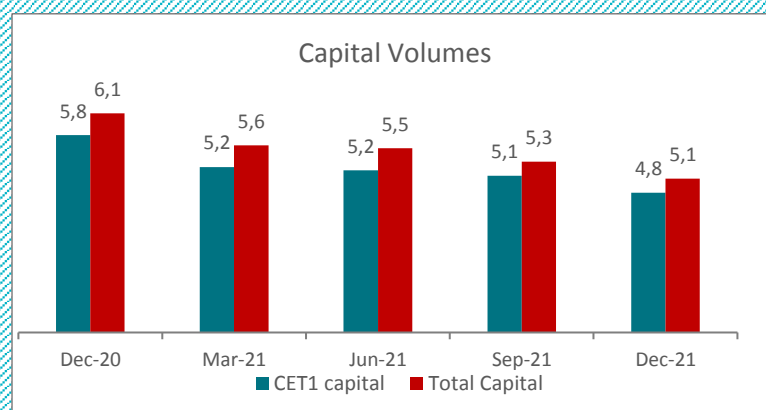
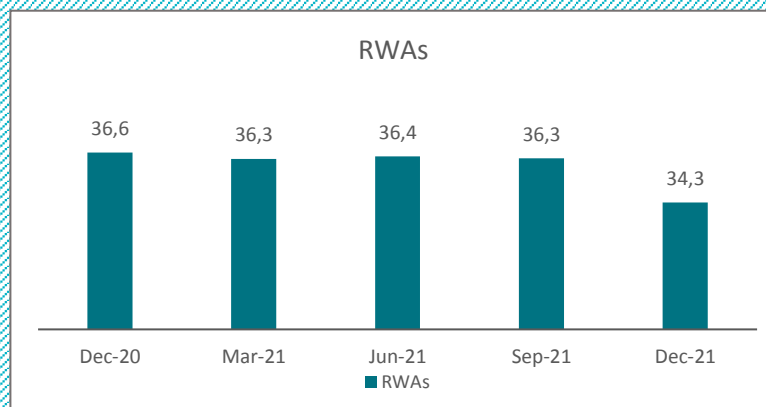
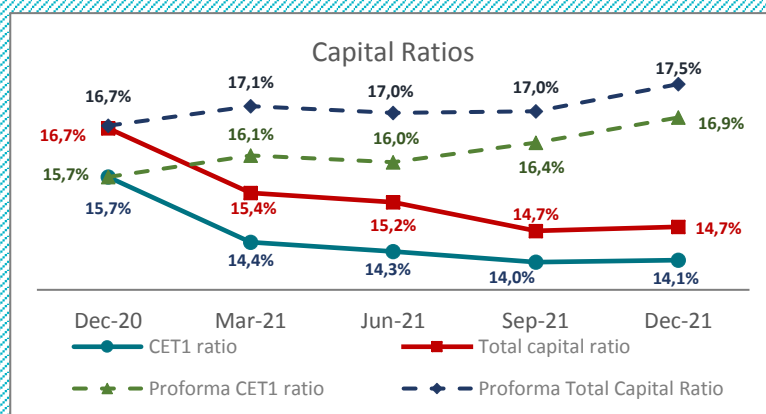
NBG Group offers a wide range of financial services, including retail and corporate banking, asset management, real estate

management, financial, investment and insurance services. The Group operates in Greece, the United Kingdom, South-eastern Europe (including Cyprus and Malta) and Egypt.

The Bank, as an international organization operating in a rapidly growing and changing environment, acknowledges its Group’s exposure to banking risks and the need for these risks to be managed effectively. Risk management forms an integral part of the Group’s commitment to pursue sound returns for its shareholders, maintaining the right balance between risks and reward in the Group’s day-to-day operations, in its balance sheet and in the Group’s capital structure management.

### Highlights

- CET1 ratio and Total Capital ratio at 14.1% and 14.7% respectively, almost steady compared to the respected figures as of September 2021. Nevertheless, proforma CET1 ratio and Total Capital ratio increased to at 16.9% and 17.5% respectively (+0.5% qoq), mostly due to significant RWAs relief (dropped by €2Bn) as a result of project Frontier completion partially offset by Total Capital drop depicting FVTOCI losses and monthly DTC amortization.



## 1.1 Pillar III Disclosure Policy

Pillar III complements the minimum regulatory capital requirements (Pillar I) and the Internal Capital and Liquidity Adequacy Assessment Processes (ICAAP/ILAAP, i.e. Pillar II). NBG is committed to publicly disclose information in compliance with EU Regulation 575/2013 of the European Parliament and of the Council, as well as all applicable additional EU Regulations and EBA Guidelines, and to have adequate internal processes and systems in place to meet these disclosure requirements.

The Bank has established a Pillar III Disclosures Policy that describes the scope, the principles and the content of public disclosures under Pillar III. Moreover, the Policy defines the relevant disclosures' governance, including the assessment of the appropriateness of the disclosures, their verification and frequency. Disclosures on a consolidated basis provide (inter alia) information on capital structure, capital adequacy, risk profile, and the processes in place for assessing and managing risks.

The Bank is firmly committed to best practices regarding public disclosures and recognizes that Pillar III provides an additional layer of market information and transparency, hence contributing to financial stability. Additional information for investors and other stakeholders (regarding e.g. the members of the management body, the Corporate Governance Code etc) is to be found in the Bank's website [www.nbg.gr](http://www.nbg.gr).

The objectives of the Pillar III Disclosures are:

- To provide investors and other stakeholders with the appropriate, complete, accurate and timely information that they reasonably need to make investment decisions and informed judgements of NBG Group;
- To foster and facilitate compliance with all applicable legal and regulatory requirements.

The Pillar III Disclosures Policy:

- Formulates the disclosure framework, including frequency, location, monitoring and verification process for disclosures;
- Defines the authorities and responsibilities for the management of the Pillar III process;
- Articulates the principles for identifying information that is material, confidential and proprietary;
- Raises awareness of the Bank's approach to disclosure among the Board of Directors, Senior Management and Employees.

## 2 REGULATORY FRAMEWORK & RECENT DEVELOPMENTS

### 2.1 Regulatory Framework

#### 2.1.1 The Main Pillars

Several steps have been made towards the European Banking Union (mandatory for all euro area States). The following are the Banking Union's constituent elements:

- A. The **Single Supervisory Mechanism** that places the ECB as the central prudential supervisor of financial institutions in the euro area. Since November 2014 NBG Group's supervision is assigned directly to the ECB, as NBG is classified as one of the significant banking groups of the Eurozone;
- B. The **Single Resolution Mechanism ("SRM")** that implements the EU-wide Bank Recovery and Resolution Directive (BRRD – *see next paragraph*) in the euro area. The centralized decision-making is built around the Single Resolution Board ("SRB") and the relevant National Resolution Authorities;
- C. The **Single Rulebook**, a single set of harmonized prudential rules for institutions throughout the EU. Its three basic legal documents are:
  - **CRD IV**: Directive 2013/36/EU of the European Parliament and Council "on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms", transposed into Greek legislation by virtue of Law 4261/2014;
  - **CRR** (Capital Requirements Regulation): Regulation (EU) No. 575/2013 of the European Parliament and Council "on prudential requirements for credit institutions and investment firms", which is legally binding and directly applicable in all Member States; and
  - **BRRD**: Directive 2014/59/EU of the European Parliament and Council "establishing a framework for the recovery and resolution of credit institutions and investment firms", transposed into Greek legislation by virtue of article 2 of Law 4335/2015.

These documents are complemented by numerous Implementing Technical Standards (ITS), Regulatory Technical Standards (RTS), Guidelines (GL) and Recommendations issued by the European Banking Authority, which specify particular aspects of the CRD IV, the CRR and the BRRD and aim at ensuring harmonization in specific areas. EBA's Technical Standards have to be endorsed by the European Commission (EC) and become EU Regulations in order to be legally binding and directly applicable in all Member States.

The CRD IV and the CRR constitute the "Basel III" regulatory framework in the EU.

- D. **Deposit Guarantee Schemes**: Directive 2014/49/EU of the European Parliament and Council "on deposit guarantee schemes" (DGSD), transposed into Greek legislation by virtue of Law 4370/2016. A common European Deposit Insurance Scheme (EDIS) is intended to be a pillar of the

Banking Union. The EC put forward a relevant proposal in November 2015. However, a common system for deposit protection has not yet been established. Work has started on a roadmap for beginning political negotiations. In December 2018, the European Council stated that it will establish a High-level working group with a mandate to work on next steps. The High-level group should report back by June 2019. On 8 August 2019, EBA published its opinion on the implementation of the Deposit Guarantee Schemes Directive (DGSD) in the EU. The opinion proposes changes in relation to the current provisions on transfers of DGS contributions between DGSs, DGSs' cooperation with various stakeholders, the current list of exclusions from eligibility, current provisions on eligibility, depositor information, the approach to third country branches' DGS membership, the implications of the recent review of the three European Supervisory Authorities (ESAs), and cross-references to other EU regulations and EU directives. The opinion proposed no changes, for example, to the current coverage level of EUR 100,000, provisions on home-host cooperation, cooperation agreements, or the cooperation between the EBA and the European Systemic Risk Board (ESRB).

#### 2.1.2 EU package of Risk Reduction Measures: CRR2 / CRD5 / BRRD2 / SRMR2

On November 23rd, 2016, the EC presented a comprehensive package of reforms aimed at amending CRR, CRD IV, as well as the BRRD and the SRM. The package, known as "CRR2/CRD5", was submitted to the European Parliament and the Council for their consideration and adoption. The Banking Package includes prudential standards adopted by the Basel Committee on Banking Supervision and by the Financial Stability Board (FSB), while its main objective is to reduce risk in the EU banking system.

The Banking Package comprises two regulations and two directives, relating to:

- bank capital requirements (amendments to regulation 575/2013 and directive 2013/36/EU);
- the recovery and resolution of banks in difficulty (amendments to directive 2014/59/EU and regulation 806/2014).

The Banking Package strengthens bank capital requirements and reduces incentives for excessive risk taking, by including a binding leverage ratio, a binding net stable funding ratio and setting risk sensitive rules for trading in securities and derivatives. In addition, it contains measures to improve banks' lending capacity and facilitate a greater role for banks in the capital markets, such as:

- reducing the administrative burden for smaller and less complex banks, linked in particular to reporting and disclosure requirements;
- enhancing the capacity of banks to lend to SMEs and to fund infrastructure projects.

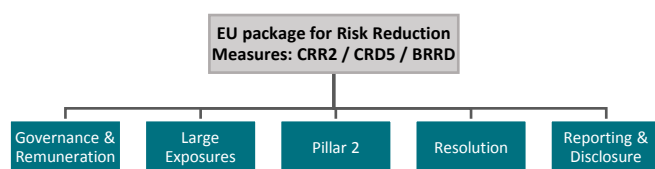
The banking package also contains a framework for the cooperation and information sharing among various authorities involved in the supervision and resolution of cross-border banking groups.



On May 20<sup>th</sup>, 2019 the relevant legislation 2019/876 was published, and entered into force on 27 June 2019. Furthermore, Greek Law 4799/2021 brought into force Directive (EU) 2019/878 of the European Parliament and of the Council amending Directive 2013/36 / EU as regards excluded entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures, as well as Directive (EU) 2019/879 of the European Parliament and of the Council amending Directive 2014/59/EU on absorption capacity losses and recapitalization of credit institutions and investment firms and Directive 98/26/EC.

This marks a milestone in the completion of the Banking Union, in the finalization of the post-crisis regulatory agenda, and in the implementation of international standards. Building on the existing rules, this set of adopted measures addresses the remaining challenges to financial stability, while strengthening the global competitiveness of the EU banking sector. This package had already made subject of an agreement during the inter-institutional negotiations with the Council of the EU.

The main focus areas of Risk Reduction Measures Package are illustrated below:



**Figure 1:** EU package of Risk Reduction Measures

The approved agreement on the package of reforms implements components of the Basel III framework, including the following key aspects:

- Proposal for CRR 2 covers the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, the Standardized Approach for counterparty credit risk (SA-CCR), market risk and the fundamental review of the trading book (FRTB), exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and amends European Market Infrastructure Regulation (EMIR or EU Regulation No 648/2012).
- Proposal for CRD 5 is on exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers, and capital conservation measures.
- Proposal for SRMR 2 is about loss-absorbing and recapitalization capacity for credit institutions and investment firms.
- Proposal for BRRD 2 is on loss-absorbing and recapitalization capacity of credit institutions and investment firms and it amends Directive 98/26/EC, Directive 2002/47/EC, Directive 2012/30/EU, Directive 2011/35/EU, Directive 2005/56/EC, Directive 2004/25/EC, and Directive 2007/36/EC.

However, it excludes the package of Basel reforms that was agreed on 7 December 2017 by the Basel Committee on Banking Supervision (BCBS) often referred to as 'Basel IV' (see relevant section [2.2.4 Basel III / Basel IV](#)).

## 2.2 Regulatory Developments 2021

### 2.2.1 Banking Sector in the post COVID-19 era

The COVID-19 pandemic outbreak created an unexpected multi-layered crisis that severely affected the economy and threatened to disrupt global economic strength and the business continuity of countries and their credit institutions. The European Union as a whole, governments, central banks and regulatory authorities responded with mechanisms aiming to manage this instability. Apart from the vast number of measures taken in terms of regulatory requirements and timetables in response to the Covid-19 crisis, the financial sector authorities reacted immediately to establish operational resilience by identifying critical functions and employees, ensuring personal safety and safe resume of duties, IT infrastructure resilience, safeguard information security and protect vulnerable systems, and detect, respond and recover from cyber attacks.

Nevertheless, uncertainty of COVID-19 situation persists, and so the need to monitor exposures and the credit quality of loans with public support measures, where those are still relevant. In particular, the need for such monitoring is evident as loans under support measures exhibit a deterioration in their credit outlook. Against this backdrop, despite the noticeable reduction in the volumes of loans within the scope of COVID-19 reporting and disclosure (loans under various forms of payment moratoria and public guarantee schemes), given the ongoing COVID-19 pandemic and the uncertainty over its future development, the European Banking Authority (EBA), on the 22nd of January 2022, confirmed the continued application of COVID-19 related reporting and disclosure requirements beyond December 2021 and until further notice, and ensured that the Guidelines on the reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis adopted on 2 June 2020 continue to apply.

The EBA noted that the effects of the COVID-19 pandemic on the credit quality of exposures may differ across jurisdictions and over time, and that, in some jurisdictions, the level of public support measures considered for the purposes of COVID-19 reporting and disclosure also differs. To this end, competent authorities may exercise the flexibility provided in the Guidelines to reduce or stop some specific reporting and disclosure requirements.

### 2.2.2 Supervisory Priorities for 2022-2024

ECB Banking Supervision, in cooperation with the national competent authorities, has performed a thorough assessment of the main risks and vulnerabilities faced by the significant institutions under its direct supervision and has set its strategic priorities for the next three years accordingly. The three priorities identified for 2022-2024 aim to ensure that banks emerge from the pandemic healthy, seize the opportunity to address structural weaknesses via effective digitalization strategies and enhanced governance, and tackle emerging risks, including climate-related and environmental risks, IT and cyber risks. For each priority, ECB Banking Supervision has developed a set of strategic objectives and underlying work programmes, spanning the next three years, which aim to address the most material vulnerabilities identified during this year's risks and priorities exercise.

On September 21st, 2021, the European Securities and Markets Authority (ESMA), the EU's securities markets regulator, published

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

its 2022 Annual Work Programme (AWP), setting out its priority work areas for the next 12 months to deliver on its mission to enhance investor protection and promote stable and orderly financial markets. The 2022 AWP has been developed at a time of significant change for ESMA with its new powers and responsibilities, growth in staff numbers and senior management changes. The key areas of focus for 2022 include: the exercise of new, and existing, supervisory powers for benchmarks and data service providers (DRSPs) as well as central counterparties (CCPs); its contribution to the European Union (EU) priorities on the development of the Capital Markets Union (CMU), sustainable finance and innovation; and the convergence of supervisory and regulatory practices across the EU. In addition, it will continue to monitor the impact of the United Kingdom's withdrawal from the EU on the evolution of EU and global capital markets.

Furthermore, in October 2021, the European Banking Authority published its annual work program.

For 2022, the EBA has set five vertical priorities:

1. monitoring and updating the prudential framework for supervision and resolution;
2. revisiting and strengthening the EU-wide stress-testing framework;
3. leveraging the European centralized infrastructure for supervisory data (EUCLID);
4. deepening analysis and information-sharing in the areas of digital resilience, fintech and innovation; and
5. fighting AML/CFT and contributing to a new EU infrastructure.

Moreover, the EBA has set two horizontal priorities:

1. providing tools to measure and manage environmental, social and corporate governance (ESG) risks; and
2. monitoring and mitigating the impact of COVID-19.

Also in October 2021, the European Commission adopted a review of EU banking rules (CRR & CRD), to ensure that EU banks become more resilient to potential future economic shocks, while contributing to Europe's recovery from the COVID-19 pandemic and the transition to climate neutrality. The package finalizes the implementation of the Basel III agreement in the EU and is comprised of the following parts:

#### 1. Implementing Basel III – strengthening resilience to economic shocks

The proposal aims to ensure that “internal models” used by banks to calculate their capital requirements do not underestimate risks, thereby ensuring that the capital required to cover those risks is sufficient. In turn, this will make it easier to compare risk-based capital ratios across banks, restoring confidence in those ratios and the soundness of the sector overall. The proposal aims to strengthen resilience, without resulting in significant increases in capital requirements. It limits the overall impact on capital requirements to what is necessary, which will maintain the competitiveness of the EU banking sector. The package also further reduces compliance costs, in particular for smaller banks, without loosening prudential standards.

#### 2. Sustainability – contributing to the green transition

This proposal will require banks to systematically identify, disclose and manage ESG risks as part of their risk management. It includes regular climate stress testing by both supervisors and banks. Supervisors will need to assess ESG risks as part of regular supervisory reviews. All banks will also have to disclose the degree

to which they are exposed to ESG risks. To avoid undue administrative burdens for smaller banks, disclosure rules will be proportionate. The proposed measures will not only make the banking sector more resilient, but also ensure that banks take into account sustainability considerations.

#### 3. Stronger supervision – ensuring sound management of EU banks and better protecting financial stability

The package provides stronger tools for supervisors overseeing EU banks. It establishes a clear, robust and balanced “fit-and-proper” set of rules, where supervisors assess whether senior staff have the requisite skills and knowledge for managing a bank. Moreover, supervisors will now be equipped with better tools to oversee fintech groups, including bank subsidiaries. This enhanced toolkit will ensure the sound and prudent management of EU banks.

The review also addresses – in a proportionate manner – the issue of the establishment of branches of third-country banks in the EU. At present, these branches are mainly subject to national legislation, harmonized only to a very limited extent. The package harmonizes EU rules in this area, which will allow supervisors to better manage risks related to these entities, which have significantly increased their activity in the EU over recent years.

In November 2021, the Single Resolution Board (SRB) published its 2022 Annual Work Programme, setting out its objectives and priorities for the year ahead. It is the second year of the Multi-Annual Programme (MAP) for 2021-2023. The SRB is committed to making banks fully resolvable by the end of 2023. In 2022, the SRB will work on enforcing and operationalizing the guiding principles laid down in the SRB Expectations for Banks (EFB) and the Minimum Requirement for own funds and Eligible Liabilities (MREL) policy. In parallel, the SRB will continue evolving as an organization and increasing its crisis preparedness. The SRB priorities lie in five strategic areas, in line with the 2021-2023 MAP. The focus for the year ahead will be on achieving resolvability of SRB entities and less significant institutions, fostering a robust resolution framework, carrying out effective crisis management, operationalizing the Single Resolution Fund, with the Common Backstop set to enter into force in early 2022, and establishing a lean and efficient organization.

### 2.2.3 Capital

On December 8th, 2021 the EBA published an updated list of Common Equity Tier 1 (CET1) instruments of EU institutions. This list is accompanied by an updated CET1 Report, which includes information on the underlying objectives of the monitoring as well as on the consequences of including or excluding instruments in or from the CET1 list. The EBA's monitoring of capital instruments contributes to the enhancement of the quality of institutions' capital across the EU. Instruments issued by UK institutions have been removed due to the UK departure from the EU, additional instruments from a couple of EU jurisdictions have been added or removed as well. In total the list encompasses 111 types of CET1 instruments. The CET1 Report includes some background information on the monitoring work done to establish the CET1 list so as to provide external stakeholders with further guidance on the content and objectives of such list. The latest update includes additional guidance in the context of (in)direct funding, refusal of redemption, redeemable shares, incentives for minimum dividends and minimum dividends.

On February 10th, 2022 the ECB announced that it will not extend capital and leverage relief for banks as it sees no need to allow banks to operate below the level of capital defined by their Pillar 2

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

Guidance beyond December 2022, nor to extend beyond March 2022 the supervisory measure that allows them to exclude central bank exposures from their leverage ratios. Although there is still some uncertainty regarding the impact of the pandemic, banks have ample headroom above their capital requirements and above the leverage ratio requirement.

## 2.2.4 Basel III / Basel IV

### ■ Basel III monitoring exercise mandatory nature

In March 2021, the European Banking Authority (EBA) decided to change the Basel III monitoring exercise from its current voluntary nature to a mandatory exercise from December 2021, due to the need to expand the sample to more jurisdictions and credit institutions, making it more representative, as well as to reach a stable sample over time by providing authorities with a sound legal basis that frames institutions' participation. This decision will assist the EBA to represent, effectively, the interests of EU institutions in the Basel Committee on Banking Supervision (BCBS) and to provide informed opinions and technical advice to the European Commission, the European Parliament and the Council regarding the implementation of the BCBS standards into the Union law. The initiative introduces a clear, transparent and fair methodology on how institutions should be included in the sample, and guarantees enhanced stability of the sample over time by taking into account the proportionality principle. In addition, this decision provides competent authorities and institutions of the Member States with provisions for a reduced frequency of reporting Basel III data, i.e. annually, and for mandatory submission of only a part of the Basel templates. These provisions intend to offload some of the reporting burden that participating credit institutions might bear otherwise.

On December 1st, 2021 the EBA published the sample of banks for the mandatory Basel III monitoring exercise, which will refer to December 2021 data. The exercise was launched at the end of January 2022 and its results to be published at the end of September 2022. The sample consists of banks selected by the relevant National Competent Authorities and will be carried out at the highest level of EU/European Economic Area (EEA) consolidation on a sample of 157 banks, of which 114 are either global systemically important institutions (G-SIIs) or other systemically important institutions (O-SIIs). The sample covers approximately 80% of the banking sector in the EEA, including Iceland, Liechtenstein and Norway.

### ■ EU implementation of outstanding Basel III reforms

The European Banking Authority and the European Central Bank have consistently affirmed the importance of timely and faithful implementation of the outstanding Basel III reforms in the European Union. This is essential to ensure banks can withstand future crises and a necessary condition for the proper functioning of the European and global financial systems. The COVID-19 pandemic created the need for exceptional measures. Both the EBA and the ECB supported the decision of the Basel Committee to delay the implementation date of the final Basel III reforms by two years to 2025. Nevertheless, these reforms remain critically important for addressing shortcomings in the existing framework.

The macroeconomic impact of Basel III reforms finalization on the EU area are outlined in the ECB article of July 26<sup>th</sup>, 2021. This article assesses the economic costs and benefits of the Basel III finalization package and shows that the transitory costs of the reform are outweighed by its permanent long-term benefits. Implementing EU-specific modifications to the Basel III reform, such as the small and

medium-sized enterprise (SME) supporting factor, credit valuation adjustment (CVA) exemptions and discretion with regard to the operational risk capital charge, reduce the already moderate transitory costs of the reform, although they also reduce its long-run benefits. Approaches that, in addition, modify the implementation of the output floor fail to further reduce the short-term economic costs of the reform while again decreasing its long-term benefits.

## 2.2.5 Credit Risk

### ■ RWA calculation for CIUs

In November 2021, the EBA published its final draft Regulatory Technical Standards (RTS) specifying the methodology to apply to calculate the risk-weighted exposure amounts, in the context of the mandate-based approach when there are some missing inputs. These final draft RTS contribute to the calculation of own funds requirements for the exposures in the form of units or shares in CIUs under the Standardised Approach (SA) for credit risk. In particular, they provide clarification on the regulatory treatment for missing inputs when the underlying risk of derivatives is unknown, as well as for the computation of the exposure value for counterparty credit risk. The RTS also account for situations where the notional amount of a netting set needs to be computed or for when the identification of netting sets is not feasible, and explain what is considered as insufficient information versus missing inputs and clarify whether market measures provide sufficient information for the application of the MBA for exposures to CIUs.

### ■ Country Equivalence

In November 2021, the EBA acknowledged the EU Commission's decision to consider the supervisory and regulatory framework applicable to credit institutions in Bosnia and Herzegovina and North Macedonia as equivalent to that applied in the Union. According to the Capital Requirements Regulation (CRR), under well-defined conditions, certain categories of exposures to entities located in countries outside the EU can benefit from the same preferential treatment applied to EU Member States' exposures in terms of capital requirements. This would imply that EU credit institutions can apply preferential risk weights to relevant exposures to entities located in those countries. In particular, such preferential treatment is only available if and when the European Commission adopts an Implementing Decision determining that the country's prudential supervisory and regulatory requirements are at least equivalent to those applied in the EU.

In February 2022, the EBA updated the questionnaires used for the assessment of regulatory and supervisory frameworks of third countries, to reflect certain provisions recently introduced by the revised prudential regulation in the EU. The methodology used for this type of assessment is based on two questionnaires:

- a 1st step questionnaire, which provides an initial screening, focusing on the most relevant requirements and principles and identifying similar laws in place;
- a 2nd step questionnaire, which allows for a granular and more detailed investigation of third country frameworks by identifying and mapping similar rules and provisions to the CRR and analyzing the divergences.

### ■ External Credit Assessment Institutions

In September 2021, the ESMA published an Opinion on how access to and use of credit ratings can be improved in the EU, highlighting the difficulties experienced by users of credit ratings and

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

recommending that the legislators amend the CRA Regulation or take alternative legislative action to address these.

On December 17, 2021 the EBA launched a public consultation to amend the Implementing Regulation on the mapping of credit assessments of External Credit Assessment Institutions (ECAIs) for securitization. The changes reflect the relevant amendments introduced by the new Securitization Framework, as well as the mappings for two ECAIs that extended their credit assessments to cover securitizations. The Implementing Regulation is part of the EU Single Rulebook for banking aimed at creating a safe and sound regulatory framework consistently applicable across the European Union (EU). The consultation ran until 31 January 2022. The CRR amendments brought by the new Securitization Framework have made it necessary to update the mapping tables accordingly. Following the amendments of the CRR, a hierarchy of approaches was set out to calculate capital requirements for positions in a securitisation, whereby institutions using the Securitization External Ratings Based Approach (SEC-ERBA) shall calculate risk-weighted exposure amounts based on CQs set out in the CRR. The amended Regulation reflects 18 CQs for long-term external credit assessments, which ensures enhanced granularity and risk sensitivity with respect to the approaches previously considered in the Regulation. In addition, since the adoption of the Implementing Regulation, one additional ECAI has been established in the EU with methodologies and processes in place for producing credit assessments for securitisation instruments, two existing ECAIs have extended their credit assessments to cover securitizations, and ESMA has withdrawn the registration of an ECAI. These changes have been reflected in the mapping tables accordingly.

### Specific Credit Risk Adjustments calculation

Following a public consultation (June 2021), the EBA published in December 2021 its Final Report on draft Regulatory Technical Standards (RTS) with regard to specifying the calculation of specific credit risk adjustments, in the context of the calculation of the Risk Weight (RW) of defaulted exposures under the Standardised Approach (SA). The proposed amendments follow up on the European Commission's Action Plan to tackle non-performing loans in the aftermath of the COVID-19 pandemic, which indicated the need for a revision of the treatment of defaulted exposures under the SA. This update is necessary to ensure the prudential framework does not create disincentives to the sale of non-performing assets. The Commission's Action Plan specifically asks the EBA to consider the appropriate regulatory treatment of defaulted assets, as laid out in the Capital Requirements Regulation (CRR), which have been sold at a discount, i.e. NPL sales. Under the current regulatory framework, the capital charge for a defaulted exposure may – under certain circumstances - increase after its sale from a risk weight of 100% on the seller's balance sheet to a risk weight of 150% on the balance sheet of the credit institution buying the assets. The proposed amendment to the existing RTS on credit risk adjustments introduces a change to the recognition of total credit risk adjustments, which ensures that the risk weight can remain the same in both cases. In particular, the price discount stemming from the sale will be recognized as a credit risk adjustment for the purposes of determining the risk weight. By implementing this change through an RTS amendment, the EBA aims at clarifying the regulatory treatment of sold NPL assets. However, the EBA also recommends that the treatment set out in this RTS be included in the Commission's considerations as part of the revised Capital Requirements Regulation (CRR3) proposal, which is expected at a later stage.

### 2021 EU-Wide Transparency Exercise

On September 24th, 2021 the EBA launched its regular EU-wide transparency exercise. On December 2, 2021 the EBA published its annual risk assessment of the European banking system, accompanied by the publication of the 2021 EU-wide transparency exercise, which provides detailed information, in a comparable and accessible format, for 120 banks across 25 EEA / EU countries. Fears about potential asset quality deterioration have not materialized, except for the sectors most affected by the pandemic. Looking ahead, banks as well as micro and macro prudential authorities need to be prepared in case of a deterioration in the economic outlook or in case inflationary pressure translates into further rising rates.

### Central Counterparty Stress Test

In June 2021, the ESMA published the framework for its fourth Stress Test for Central Counterparties (CCPs). ESMA, as required by the European Markets Infrastructure Regulation (EMIR), initiates and coordinates this exercise to assess the resilience and safety of recognized European Union (EU) and Tier 2 Third Country CCPs (TC-CCPs) to adverse market developments and to identify any potential shortcomings. The 2021 Stress Test addresses credit and concentration risks, and uses improved methodologies, including lessons learned from previous exercises, such as assessing the combination of concentration costs and credit losses when liquidating defaulting portfolios or including an intraday exercise for credit. For the first time, and in line with ESMA's mandate, the exercise also covers operational risk.

### Other Developments

#### Regional Governments & Local Authorities – Public Sector Entities

On April 8th, 2021 the European Banking Authority (EBA) published the updated list of Public Sector Entities (PSEs) and Regional Governments and Local Authorities (RGLAs) that may be treated as central governments (CGs), for the calculation of capital requirements, in accordance with the EU Capital Requirements Regulation (CRR).

The above lists include the PSEs and the RGLAs that are treated as central governments under the Standardised Approach (SA) due to their reduced risk level. As a result of this treatment, exposures to the PSEs included in the list will qualify for the same risk weight as their respective central government. The list is compiled using the information provided by the competent authorities and is based on the classification used in each individual country. The approaches and eligibility criteria for PSEs and RGLAs can, therefore, differ from country to country in many cases.

## 2.2.6 Reporting and Disclosure

### Reporting

The EBA reporting framework has evolved over the years with its latest release to have been published on 22 December 2020 (reporting framework 3.0).

In June 2021, as part of its drive for more proportionate regulatory and supervisory framework, the EBA finalized its comprehensive study of the cost of compliance of European Economic Area (EEA) banks with the supervisory reporting requirements. In the summary report it identified numerous recommendations collectively leading to a potential reduction of the banks' reporting costs by up to 15-24%. Most of the recommendations will be implemented by the EBA



## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

as part of its ongoing policy work on developing and enhancing the common EU supervisory reporting framework.

In the report the EBA identifies 25 recommendations aimed at reducing the costs of compliance with supervisory reporting requirements focusing primarily on small and non-complex institutions. However, the recommendations will improve reporting requirements and processes for all institutions whilst retaining the end-user benefits of the single supervisory framework. The recommendations address four broad areas:

- changes to the development process for the EBA reporting framework;
- changes to the design of EBA supervisory reporting requirements and reporting content;
- coordination and integration of data requests and reporting requirements;
- changes to the reporting process, including the wider use of technology.

The EBA technical package covers the new reporting requirements that include the amendments to the supervisory benchmarking and resolution planning frameworks (phase 2 of 3.1 reporting framework) published in June 2021 to support the implementation of the reporting framework by providing standard specifications and includes the validation rules, the Data Point Model (DPM) and the XBRL taxonomies for version 3.1.

September 1<sup>st</sup>, 2021 was the first application date of the EBA final draft Implementing Technical Standards (ITS) on specific reporting requirements for market risk. These ITS introduce the first elements of the Fundamental Review of the Trading Book (FRTB) into the EU prudential framework by means of a reporting requirement. The specific reporting requirements for market risk include a thresholds template, providing insights into the size of institutions' trading books and the volume of their business subject to market risk, and a summary template, reflecting the own funds requirements under the alternative standardised approach for market risk (MKR-ASA). Those reporting requirements will become part of version 3.1 of the EBA reporting framework.

On December 16th, 2021 the EBA published its final Report on the feasibility study of an integrated reporting system (IRS). This Report is the outcome of over two years of effort and active engagement of both national and European authorities, as well as interaction with financial institutions, professional associations and specialized service providers, and is part of a broader strategy of the European Commission to improve and modernize EU supervisory reporting while minimizing the aggregate reporting burden for all parties. The Report puts forward a long-term vision on how the reporting processes could be streamlined and improved for both institutions and competent authorities and how cooperation among the latter could be enhanced in the area of prudential, resolution and supervisory reporting.

Following the recommendations of its cost of compliance Study, the EBA published on December 20th, 2021 its final draft Implementing Technical Standards (ITS) on supervisory reporting with respect to common reporting (COREP), asset encumbrance, global systemically important institutions (G-SIIs) and additional liquidity monitoring metrics (ALMM), introducing the necessary amendments that will exempt small and non-complex institutions (SNCIs) from reporting several liquidity metrics, including the concentration of funding by product type, the funding price for various lengths of funding, information on roll-over of funding, as well as more granular data on asset encumbrance. The EBA also implemented simplifications for

medium-sized institutions, which will be exempted from reporting liquidity metrics on roll-over of funding.

On March 10, 2022 the EBA published phase 1 of its 3.2 reporting framework. The technical package supports the implementation of the reporting framework by providing standard specifications and includes the validation rules, the Data Point Model (DPM) and the XBRL taxonomies for version 3.2. The phase 2 and 3 of the same framework will be published in Q2 and Q3 of 2022. The EBA also published a revised list of validation rules for the reporting frameworks currently in use. Phase 1 of the technical package covers the new reporting requirements that include the amendments to the following supervisory reporting frameworks: common reporting (COREP) on own funds, additional liquidity monitoring metrics (ALMM), net stable funding ratio (NSFR), asset encumbrance, global systemically important institutions (G-SII) reporting and Investment Firms). The new reporting requirements are expected apply from December 2022. The technical package for Supervisory Benchmarking and Remunerations will be published respectively in phase 2 and 3.

### Disclosure – Pillar III

In November 2021 the EBA published its first draft implementing technical standards (ITS) on Pillar 3 disclosure of institutions' exposures to interest rate risk on positions not held in the trading book (IRRBB). The final draft ITS put forward comparable disclosures that will help stakeholders assess institutions' IRRBB risk management framework as well as the sensitivity of institutions' economic value of equity and net interest income to changes in interest rates. The standards will amend the comprehensive ITS on institutions' public disclosures, in line with the strategic objective of developing a single and comprehensive Pillar 3 package that should facilitate implementation by institutions and further promote market discipline. In addition, given the ongoing EBA work on the policy framework for IRRBB, the standards also include transitional provisions that should facilitate institutions' disclosures while the policy framework is being finalized.

In November 2021, the Basel Committee on Banking Supervision issued revisions to its market risk disclosure requirements to reflect changes to the Minimum Capital Requirements for market risk published in January 2019. The Basel Committee also finalized standards for the voluntary disclosure of sovereign exposures. The final standards comprise three templates covering disclosure of sovereign exposures and risk-weighted assets by jurisdictional breakdown; currency breakdown; and according to the accounting classification of the exposures. The implementation of these templates is only mandatory when required by national supervisors.

### 2.2.7 EU-wide Stress Test

Stress testing has become an essential tool for supervisors to understand and assess firms' risks, vulnerabilities and risk management capabilities. As concerns about crystallization of significant cyclical economic risks grow, scrutiny of stress testing outcomes is likely to increase.

For the Bank, under the baseline scenario the Fully Loaded ("FL") CET1 ratio reached to 15.5% in 2023 from 12.8% in 2020 (starting point), while under the adverse the FL CET1 ratio, reached to 6.4% in 2023. Given the Static balance sheet methodology, the 2021 SSM Stress Test does not incorporate capital accretive results post 30 December 2020.

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

On 8 December 2021, the Board of Supervisors of the European Banking Authority (EBA) decided to carry out its next EU-wide stress test in 2023, in line with the decision to aim for a biennial exercise. This decision reflects the ongoing progress that EU banks are making in strengthening their capital positions and the work to be done for the preparation of the next stress test exercise. Competent Authorities as well as market participants will, in the meantime, be able to use the significant quantitative and qualitative information generated by the 2021 EU-wide stress test.

### 2.2.8 Market Risk

On 22 October 2021, the EBA following two public consultations (May 2021), published its Final draft Regulatory Technical Standards (RTS) on gross jump-to-default (JTD) amounts and its draft RTS on residual risk add-on (RRAO). These draft RTS specify i) how gross JTD amounts are to be determined for the purposes of calculating the default risk charge for non-securitization instruments, and ii) how to identify instruments exposed to residual risks for the purposes of the residual risk add on (RRAO) - under the alternative standardised approach for market risk. Institutions using the alternative standardised approach (FRTB-SA) to determine own funds requirements for market risk are required to compute, on top of the own funds requirement under the sensitivities-based method, additional own funds requirements for default risk and for residual risks. The consultation papers provide technical specifications for the implementation of these two elements.

In July 2021, the EBA published its final Guidelines clarifying the requirements that the data inputs used to determine the scenarios of future shocks applied to modellable risk factors should meet, which are part of the deliverables included in the roadmap for the new market and counterparty credit risk approaches, and apply since 1 January 2022. Institutions using the alternative Internal Model Approach (IMA) for market risk are required to compute the expected shortfall (ES) risk measure for their modellable risk factors, i.e. for those risk factors for which a sufficient amount of verifiable prices is available. These Guidelines clarify the conditions that the data inputs related to modellable risk factors should meet for their use in the ES calculations.

On February 2, 2022, the EBA published its final draft Regulatory Technical Standards (RTS) on the list of countries with an advanced economy for calculating the equity risk under the alternative standardised approach (FRTB-SA). Institutions using the alternative standardised approach to determine own funds requirements for market risk are required to compute the equity risk stemming from their trading book positions in accordance with a prescribed set of risk factors and corresponding risk weights. To determine the appropriate risk-weight, institutions are to identify whether a risk factor refers to an advanced economy or an emerging market. Risk factors mapped to the advanced economy bucket benefit from a lower risk weight compared to those mapped to the emerging market bucket. While not specifying the underlying criteria to draw it, the FRTB standards provide a list of advanced economies that leaves out some EU countries. The EBA, accordingly, analyzed an extensive sample of equity names to assess whether equity names related to economies included in the FRTB list are less volatile than those relating to the excluded EU countries. The results show that this is not the case. On the basis of the results obtained, and considering that the EU has a single market, the final draft RTS complement the FRTB list of advanced economies by including all member states and all countries belonging to the European Economic Area (EEA).

### 2.2.9 Operational Risk

#### BIS consultation on Operational Risk

The BCBS introduced its Principles for the sound management of operational risk in 2003, and subsequently revised them in 2011 to incorporate the lessons from the financial crisis.

In March 2021 the BCBS issued a revision to the Principles for the sound management of operational risk.

The Principles cover mainly governance issues, the risk management environment, information and communication technology, business continuity planning and the role of disclosure. Besides, recognizing the increased potential for significant disruptions to bank operations from pandemics, natural disasters, destructive cyber security incidents or technology failures, the Committee has also developed principles for operational resilience, which reflect several of the principles contained in the above document.

### 2.2.10 ESG Risks

There is a constantly growing concern towards sustainability, green banking and ESG risk measures. In particular, the Publications Office of the European Union has developed tools and mechanisms for the integration of ESG factors into the EU banking prudential framework and into banks' business strategies and investment policies. The study, conducted on behalf of the European Commission, explores the integration of ESG factors into banks' risk management processes, business strategies and investment policies, as well as into prudential supervision. It provides a comprehensive overview of current practices and identifies a range of best practices for the integration of ESG risks within banks' risk management processes and prudential supervision. It outlines challenges and enabling factors associated with the development of a well-functioning EU market for green finance and sustainable investment. The study is based on the collection and aggregation of information from a wide range of representative stakeholders, in order to reflect a full spectrum of views. Findings show that ESG integration is at an early stage, and the pace of implementation needs to be accelerated in order to achieve effective ESG integration into banks' risk management and business strategies, as well as prudential supervision. To support this acceleration, enhancements are particularly required on ESG definitions, measurement methodologies, and associated quantitative indicators. A lack of adequate data and common standards remain key challenges to be overcome to drive ESG integration. Cross-stakeholder collaboration, as well as supervisory initiatives and guidance, will be critical in tackling this global and pervasive topic.

The European Central Bank has played a key role in the regulatory developments related to climate change through surveys, reports and setting strategies towards the efficient control and management of ESG Risks. During 2021 and early 2022, among others the ECB has:

- Decided to set up a climate change centre to bring together the work on climate issues in different parts of the bank. This decision reflects the growing importance of climate change for the economy and the ECB's policy, as well as the need for a more structured approach to strategic planning and coordination.
- Emphasized on the importance of an economy wide climate stress test, which encompasses approximately four million companies worldwide and 2,000 banks – almost all monetary financial institutions in the euro area – and covers a period of

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

30 years into the future. This comprehensive exercise – the first of its kind – aims to assess the exposure of euro area banks to future climate risks by analyzing the resilience of their counterparties under various climate scenarios. It is a vital step forward in getting acquainted with the impact climate risks have on economic and financial stability, which until now has been poorly identified, quantified and understood. The results show that firms and banks clearly benefit from adopting green policies early on to foster the transition to a zero-carbon economy. The exercise also reveals that the impact of climate risk is concentrated in certain regions and sectors of the euro area. In particular, firms located in regions most exposed to physical risk could face very severe and frequent natural disasters, which would in turn affect their creditworthiness. Climate risk includes both physical risk and transition risk. Physical risk is the economic impact of an expected increase in the frequency and magnitude of natural disasters. In Europe, physical risks are unevenly distributed, with northern regions being more prone to floods and southern regions more exposed to heat stress and wildfires. Transition risk is the cost of introducing policies to reduce CO<sub>2</sub> emissions, particularly for certain high-emitting industries. That said, the transition to a greener economy is also a golden opportunity. The exercise shows that the advantages of taking action early on outweigh the initial costs over the medium to longer term, also as a result of energy efficiency gains for firms and cheaper energy prices overall. Euro area banks could be severely affected under a scenario where climate change is not addressed. The expected losses on corporate loan portfolios are shown to rise significantly over time, driven by ever increasing physical risk, with the potential of becoming critical over the next 30 years.

In October 2021 the ECB published the relevant methodology for its annual climate risk stress test, aiming to enhance the capacity of both banks and supervisors to assess climate risk and the supervisory understanding of what climate-relevant data banks have available and the limitations when assessing climate-related risks, to identify best practices and to ensure that banks follow the instructions set out. The output of the stress test exercise will be integrated into the Supervisory Review and Evaluation Process (SREP) using a qualitative approach.

In January 2022, it launched a supervisory climate risk stress test to assess how prepared banks are for dealing with financial and economic shocks stemming from climate risk. The exercise will be conducted in the first half of 2022 after which the ECB will publish aggregate results.

- Published along with the European Systemic Risk Board (ESRB) a joint report that takes a closer look at how a broadened set of climate change drivers affects millions of global firms and thousands of financial firms in the European Union (EU), maps out prospective financial stability risks and contributes by further developing the analytical basis for more targeted and effective policy action. The report tackles measurement gaps and, building on previous work in this field, establishes a detailed topology of physical and transition risks arising from climate change across regions, sectors and firms. It also applies a scenario analysis with long-dated financial risk horizons to capture prospective financial losses resulting from the timeliness and effectiveness of climate policies and technologies.
- Decided on a comprehensive action plan, with an ambitious roadmap to further incorporate climate change considerations into its policy framework, aiming to underline its commitment to more systematically reflect environmental sustainability considerations in its monetary policy. While governments and parliaments have the primary responsibility to act on climate change, within its mandate, the ECB recognises the need to further incorporate climate considerations into its policy framework. Climate change and the transition towards a more sustainable economy affect the outlook for price stability through their impact on macroeconomic indicators such as inflation, output, employment, interest rates, investment and productivity; financial stability; and the transmission of monetary policy. Moreover, climate change and the carbon transition affect the value and the risk profile of the assets held on the Eurosystem's balance sheet, potentially leading to an undesirable accumulation of climate-related financial risks. With this action plan, the ECB will increase its contribution to addressing climate change, in line with its obligations under the EU Treaties. The action plan comprises measures that strengthen and broaden ongoing initiatives by the Eurosystem to better account for climate change considerations with the aim of preparing the ground for changes to the monetary policy implementation framework. The design of these measures will be consistent with the price stability objective and should take into account the implications of climate change for an efficient allocation of resources. The recently established ECB climate change centre will coordinate the relevant activities within the ECB, in close cooperation with the Eurosystem. These activities will focus on the following areas:
  - Macroeconomic modelling and assessment of implications for monetary policy transmission,
  - Statistical data for climate change risk analysis,
  - Disclosures as a requirement for eligibility as collateral and asset purchases,
  - Enhancement of risk assessment capabilities,
  - Collateral framework. Corporate sector asset purchases.
- Published a paper on the low-carbon transition, climate commitments and firm credit risk, which assesses whether and how two key measures of firm-level credit risk – credit ratings issued by rating agencies and the market-implied distance-to-default – relate to firms' climate-related transition risk. The results show that high emissions tend to be associated with higher credit risk. But disclosing emissions and setting a forward-looking target to cut emissions are both associated with lower credit risk. Furthermore, the effect of climate commitments tends to be stronger for more ambitious goals, both in terms of the percentage reduction in emissions targeted and the targeted speed of reduction. The magnitude of all these effects is economically meaningful and comparable to the effect of other standard determinants of credit risk such as firm leverage. After the Paris agreement, firms most exposed to climate transition risk saw their credit ratings deteriorate whereas other comparable firms did not, with the effect larger for European firms than for US ones. This probably reflects different expectations around government climate policy both after the Paris agreement and across countries. Overall, the results suggest that firms that are better prepared for the low carbon transition have lower credit risk. At the same time, it is important to emphasize that the true extent of climate-related

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

credit risks could still be materially under-estimated by rating agencies and market participants.

On 2 February 2022, the European Commission approved in principle a Complementary Climate Delegated Act including, under strict conditions, specific nuclear and gas energy activities in the list of economic activities covered by the EU taxonomy. The criteria for the specific gas and nuclear activities are in line with EU climate and environmental objectives and will help accelerating the shift from solid or liquid fossil fuels, including coal, towards a climate-neutral future.

Moreover, the EBA published numerous opinions and guidelines, some of which are:

- An opinion (March 2021) for advice on KPIs and related methodology for the disclosure by credit institutions and by investment firms of information on how and to what extent their activities qualify as environmentally sustainable in accordance with the EU Taxonomy, to underline the importance of the green asset ratio, supported by other KPIs, as a key means to understand how institutions are financing sustainable activities and meeting the Paris agreement targets. In the opinion and accompanying report and annexes, the EBA elaborates on the KPIs that institutions should disclose, on the scope and methodology for the calculation of those KPIs, and on the qualitative information they should provide. In addition, the EBA includes some policy recommendations to the Commission to put in place means to facilitate institutions' disclosures and the eventual extension of the KPIs to all relevant assets, including sovereign and central banks' exposures.
- The findings (May 2021) of its first EU-wide pilot exercise on climate risk, whose main objective is to map banks' exposures to climate risk and provide an insight into the green estimation efforts banks have carried out so far. The findings give a clear picture of banks' data gaps and highlight the sense of urgency to remedy them if they are to achieve a meaningful and smooth transition to a low-carbon economy. It is only through a more harmonized approach and common metrics that banks' efforts will prove meaningful in addressing and mitigating the potentially disruptive impacts of environmental risks. The findings also show big differences in banks' application of the EU taxonomy. A first estimate of the starting point of their green asset ratio (GAR) estimated with a top-down tool currently stands at 7.9%. Overall, the findings show that more disclosure on transition strategies and greenhouse gas (GHG) emissions would be needed to allow banks and supervisors to assess climate risk more accurately. In addition, the results highlight the importance for banks to expand their data infrastructure to include clients' information at activity level. This is particularly crucial as for the 29 banks in the sample, more than half of their exposures to non-SME corporates (58% of total) are allocated to sectors that might be sensitive to transition risk. A parallel analysis, based on GHG emissions, reveals that 35% of banks' total submitted exposures are towards EU obligors with GHG emissions above the median of the distribution. Banks' disclosures will be reinforced following the EBA draft technical standards on Pillar 3 disclosures on climate-change and ESG related risks, including the definition of the green asset ratio (GAR), currently under consultation, which will allow stakeholders to assess bank's ESG related risks and sustainability strategy and to promote market discipline.

- Report on Environmental, Social and Governance (ESG) risks management and supervision (June 2021). The Report focuses on the resilience of institutions to the potential financial impact of ESG risks across different time horizons. This requires careful assessments by institutions and supervisors who should take a comprehensive and forward-looking view, as well as early, proactive actions. It also outlines the impact that ESG factors, especially climate change, can have on institutions' counterparties or invested assets, affecting financial risks, and illustrates available indicators, metrics and evaluation methods that are needed for effective ESG risk management and identifies remaining gaps and challenges on this front. The EBA also provides recommendations for institutions to incorporate ESG risks-related considerations in strategies and objectives, governance structures, and to manage these risks as drivers of financial risks in their risk appetite and internal capital allocation process, and recommends developing methodologies and approaches to test the long-term resilience of institutions against ESG factors and risks including the use of scenario analysis. Finally, to further enhance the supervisory review and evaluation process (SREP), the EBA sees a need to extend the time horizon of the supervisory assessment of the resilience of institutions' business models, applying at least a 10 year horizon to capture physical risks, relevant public policies or broader transition trends. The Report proposes a phase-in approach, starting with the inclusion of climate-related and environmental factors and risks into the supervisory business model and internal governance analysis, whilst encouraging institutions and supervisors to build up data and tools to develop quantification approaches to increase the scope of the supervisory analysis to other elements.

Additionally, in November 2021, the Basel Committee on Banking Supervision launched a public consultation on principles for the effective management and supervision of climate-related financial risks, taking a holistic approach to addressing climate-related financial risks to the global banking system, and including the assessment and consideration of disclosure, supervisory and regulatory measures. Through this public consultation, the Committee seeks to promote a principles-based approach to improving both banks' risk management and supervisors' practices related to climate-related financial risks. The principles seek to achieve a balance in providing a common baseline for internationally active banks and supervisors, while retaining sufficient flexibility given the evolving practices in this area.

Moreover, in February 2022, the European Securities and Markets Authority (ESMA) published a Call for Evidence on Environmental, Social and Governance (ESG) ratings, in order to gather information on the market structure for ESG rating providers in the European Union (EU) and to develop a picture of the size, structure, resourcing, revenues and product offerings of the different ESG rating providers operating in the EU. The ESMA also published an article assessing the implementation of its Guidelines on the disclosure of environmental, social, and governance (ESG) factors in credit rating agency (CRA) press releases, concluding that the overall level of disclosures has increased since the introduction of the Guidelines, but that a high level of divergence across CRAs means there is still room for further improvement. ESMA, to support the EU's efforts in improving the financial sector's resilience and contribution to sustainability, has started developing a climate risk stress testing framework tailored to the specificities of CCPs. The call for evidence seeks stakeholders' views on:



## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

- a proposed classification of climate risks relevant to CCPs;
- the methodology to build an EU-wide climate risk stress testing framework for CCPs;
- how to best calibrate this stress test; and
- the current development of climate risk assessments by CCPs.

### ESG Disclosures

In February 2021, the three European Supervisory Authorities (EBA, EIOPA and ESMA – ESAs) published a joint supervisory statement on the effective and consistent application and national supervision of the Regulation on sustainability-related disclosures in the financial services sector (SFDR), in order to achieve an effective and consistent application and national supervision of the SFDR, promoting a level playing field and protecting investors.

Following a public consultation period initiated in March 2021, the EBA published on 24 January 2022 binding standards on Pillar 3 disclosures on ESG risks. The final draft ITS put forward comparable disclosures to show how climate change may exacerbate other risks within institutions' balance sheets, how institutions are mitigating those risks, and their ratios, including the GAR, on exposures financing taxonomy-aligned activities, such as those consistent with the Paris agreement goals. Disclosure of information on ESG risks is a vital tool to promote market discipline, allowing stakeholders to assess banks' ESG related risks and sustainable finance strategy. The EBA ESG Pillar 3 package will help to address shortcomings of institutions' current ESG disclosures at EU level by setting mandatory and consistent disclosure requirements, including granular templates, tables and associated instructions. It will also help establish best practices at an international level. In line with the requirements laid down in the Capital Requirements Regulation (CRR), the draft ITS set out comparable quantitative disclosures on climate-change related transition and physical risks, including information on exposures towards carbon related assets and assets subject to chronic and acute climate change events. They also include quantitative disclosures on institutions' mitigating actions supporting their counterparties in the transition to a carbon neutral economy and in the adaptation to climate change. In addition, they include KPIs on institutions' assets financing activities that are environmentally sustainable according to the EU taxonomy (GAR and BTAR), such as those consistent with the European Green Deal and the Paris agreement goals. Finally, the final draft ITS provide qualitative information on how institutions are embedding ESG considerations in their governance, business model, strategy and risk management framework. The EBA has integrated proportionality measures that should facilitate institutions' disclosures, including transitional periods and the use of estimates. The first partial disclosure will take place in 2023 for the disclosure reference date as of the end of December 2022 and will contain only but a part of the information required due to the phase-in of the guidelines.

The EBF response to the above EBA public consultation on draft technical standards on Pillar 3 disclosures of ESG risks period took place in June 2021, where the key points were the following:

- Article 8 reporting requirements should not be included in the Pillar 3 scope and only disclosed under the Taxonomy Regulation Delegated Act.
- ESG Pillar 3 content, scope, and frequency should be aligned with NFRD/ CSRD content, scope, and frequency.

- The ITS requirements should be simplified, aligned with the objective of public risk disclosures, and reflect the maturity of methodological developments as well as the availability of relevant and reliable data. A meaningful reporting to supervisors/survey should be explored until robust methodologies for banks are developed at the EU level.
- The disclosures should focus on the exposures of the banking book which represent the vast majority of banks' risks.
- EBA is recommended to develop a Pillar 3 approach by building blocks. It should commence with a limited number of 'core' templates based on available and high-quality data and methodologies and gradually, the level of granularity should be adapted.

Moreover, the Financial Stability Board backed-up the view that ESG risk disclosures are of high importance, stating in July 2021, that globally consistent and comparable disclosures by firms of their climate-related financial risks are increasingly important to market participants and financial authorities. In an environment with a proliferation of third-party frameworks for climate-related disclosures, global alignment of practices will help deliver consistent and comparable disclosures and foster convergence. The implementation of climate-related disclosures, using a framework based on the TCFD Recommendations, would be an important step forward on the path towards convergence with anticipated international reporting standards on climate. Global alignment of practices would help deliver consistent and comparable disclosures and foster convergence.

### 2.2.11 Recovery & Resolution

In November 2021, the EBA published Guidelines on recovery plan indicators. The Guidelines establish a common EU approach for developing the framework of recovery plan indicators, providing additional guidance on indicators' calibration, monitoring and breaches notifications. The guidelines aim at strengthening the quality of recovery indicators framework and contributing to effective crisis preparedness of institutions. The main objective of recovery plan indicators is to help institutions monitor and respond to the emergence and evolution of stress. The EBA first issued guidelines on recovery plan indicators in 2015 and decided to amend them based on practical experience acquired in recovery planning. These Guidelines provide additional guidance on the calibration of thresholds of recovery indicators to ensure that recovery options are implemented early enough, so as to be effective. The Guidelines also emphasise on the importance of constant monitoring of recovery indicators and timely notification of their breaches to supervisors. Lastly, the minimum list of indicators includes three new additional recovery indicators (MREL/TLAC, asset encumbrance and liquidity position) to the minimum list of recovery indicators and one of them (cost of wholesale funding) has been removed.

On January 13, 2022 the EBA published its final Guidelines for institutions and resolution authorities on improving banks' resolvability. These Guidelines represent a significant step in complementing the EU legal framework in the field of resolution based on international standards and leveraging on EU best practices. On the same day, the EBA launched its consultation paper on Guidelines for institutions and resolution authorities on transferability of parts of or a whole bank in the context of resolution to complement the resolvability assessment for transfer strategies. The **resolvability Guidelines**, taking stock of the best practices

## REGULATORY FRAMEWORK &amp; RECENT DEVELOPMENTS

developed so far by EU resolution authorities on resolvability topics, set-out requirements to improve resolvability in the areas of operational continuity in resolution, access to financial market infrastructure, funding and liquidity in resolution, bail-in execution, business reorganisation and communication. These Guidelines are addressed to both authorities and institutions in the EU so as to ensure consistent progress on resolvability for all institutions and facilitate resolvability work for cross-border groups and its monitoring in resolution colleges. Institutions and authorities should comply with these Guidelines in full by 1 January 2024. The **draft transferability Guidelines** under consultation aim at assessing the feasibility and credibility of transfer strategies and encompass requirements relating to the implementation of transfer tools when considered as the preferred or alternative strategies for institutions.

In May 2021, the SRB announced an update on the CRR discretion on leverage and MREL calibration, stressing out that final MREL targets will be re-calibrated in the 2022 resolution planning cycle based on the leverage amount, including the central bank exposures temporarily excluded on the basis of the relief measure, to ensure adjustment of the MREL before the compliance date of 1 January 2024. In the meantime, the SRB will compute, where relevant, notional final MREL targets based on institutions' leverage amount including the central bank exposures. The SRB will communicate these notional targets to institutions affected by the relief measure in the context of the 2021 resolution planning cycle, and will use them to monitor the institutions' build-up of MREL resources towards the final MREL targets.

### 2.2.12 Cyber Risks & Digital euro

Since the EBA guidelines of November 2019 which established the requirements for credit institutions, investment firms and payment service providers (PSPs) on the mitigation and management of their information and communication technology (ICT) risks aiming to ensure a consistent and robust approach across the Single market, the discussion over ICT risks has been growing along with the frequency of ICT and security-related incidents (including cyber incidents), together with their potential significant adverse impact on financial institutions' operational functioning.

Specifically, in September 2021, the three European Supervisory Authorities (EBA, EIOPA and ESMA - ESAs) issued their second joint risk assessment report for 2021, which highlighted the increasing vulnerabilities across the financial sector, the rise seen in terms of cyber risk and the materialisation of event-driven risks. The financial sector is increasingly exposed to cyber risk, as it has been hit by cyber-attacks more often than other sectors, while across the digital economy, cyber-criminals are developing new techniques to exploit vulnerabilities. Furthermore, the materialisation of event-driven risks, as well as rising prices and volumes traded on crypto-assets, raise questions about increased risk-taking behaviour and possible market exuberance. Concerns about the sustainability of current market valuations remain, and current trends need to show resilience over an extended period of time for a more positive risk assessment.

In the quarterly Risk Dashboard together with the results of the autumn edition of the Risk Assessment Questionnaire published by the EBA in January 2022, it was stated that related to operational risks, a significant share of banks expects its increase, of which a 90% consider cyber risk and data security issues, and around 40% cite conduct and legal risk as the main reasons for the expected increase in operational risk.

In January 2022, the three European Supervisory Authorities (EBA, EIOPA and ESMA – ESAs) published a statement welcoming the European Systemic Risk Board's (ESRB) Recommendation on systemic cyber risk, which calls on them to prepare for the gradual development of a Pan-European systemic cyber incident coordination framework (EU-SCICF), which will support an effective and coordinated response at EU-level in the event of a major cross-border cyber incident that could have a systemic impact on the Union's financial sector. The ESRB Recommendation also proposes that the ESAs, in consultation with the European Central Bank (ECB) and the ESRB, carry out a mapping and subsequent analysis of current impediments, legal and other operational barriers for the effective development of the EU-SCICF.

Among others, Central bank digital currencies (CBDCs) are moving from concept to practical design and renew the institution of money in a new form designed for the digital age, writes the Bank for International Settlements in its Annual Economic Report 2021. The Report lays out the design choices for CBDCs, which, alongside cash, would be issued and backed by a central bank. It offers an economic analysis of their implications for consumers, financial institutions and the central bank itself. Furthermore, in July 2021, the Governing Council of the European Central Bank (ECB) decided to launch the investigation phase of a digital euro project that will last 24 months and aims to address key issues regarding design and distribution.

### 2.2.13 Governance and Remuneration

In July 2021, the EBA published its revised Guidelines on sound remuneration policies, taking into account the amendments introduced by the fifth Capital Requirements Directive (CRD V) in relation to institutions' sound remuneration policies and, in particular, the requirement that remuneration policies should be gender neutral. The final Guidelines also consider supervisory practices and clarify some aspects of retention bonuses and severance pays. The revised Guidelines apply from 31 December 2021. The principle of equal pay for male and female workers for equal work or work of equal value is laid down in Article 157 of the Treaty on the Functioning of the European Union (TFEU). Institutions need to apply this principle in a consistent manner. Additional guidance is provided on the application of waivers based on institutions' total balance sheet and for staff with a low variable remuneration that have been introduced with CRD V regarding the requirements to defer and pay out in instruments a part of the variable remuneration of identified staff. The final Guidelines also clarify how the remuneration framework applies on a consolidated basis to financial institutions that are subject to a specific remuneration framework (for example, firms subject to the Investment Firms Directive (IFD), the Undertakings for Collective Investment in Transferable Securities Directive (UCITS), or the Alternative Investment Fund Managers Directive (AIFMD)). Finally, the sections on severance payments and retention bonuses have been revised based on supervisory experience regarding cases where such elements have been used by institutions to circumvent requirements regarding the link to performance or the maximum ratio.

Furthermore, in January 2022, the EBA launched a consultation to update its Guidelines on the remuneration benchmarking exercise under the Capital Requirements Directive (CRD). The review integrates additional requirements introduced by CRD V regarding the application of derogations to the requirement to pay out a part of variable remuneration in instruments and under deferral arrangements and the benchmarking of the gender pay gap. In

---

REGULATORY FRAMEWORK & RECENT DEVELOPMENTS

---

addition, the review also includes guidance on how to harmonise the benchmarking of approvals granted by shareholders to use higher ratios than 100% between the variable and fixed remuneration. The additional revisions to the Guidelines for institutions reflect the changes made to remuneration and disclosure requirements for banks. The templates for the data collection have been revised, and additional information is collected on the application of the derogations to the application of the requirements to pay out parts of the variable remuneration in instruments and under deferral arrangements. The principle of equal pay for equal work or work of equal value and measures to ensure equal opportunities have already been included in the EBA Guidelines on sound remuneration policies and internal governance. The benchmarking of the gender pay gap will allow competent authorities to monitor the implementation of such measures and their development at different levels of pay. The Guidelines aim at ensuring that the benchmarking of the gender pay gap covers a representative sample of institutions. Specific templates for the benchmarking of the gender pay gap have also been introduced.

### 3 NBG's TRANSFORMATION PROGRAM

Following a clear mandate from NBG's Board of Directors, NBG launched a rigorous Transformation Program in the second half of 2018, committing to the delivery of aspiring financial and operational targets. Through more than 3 years of implementation, the Transformation Program has enabled the delivery of impressive results in terms of core profitability – fully in line with the Bank's financial and business targets - and tangible improvements to NBG's business and operating model.

NBG's Transformation Program has been designed across Workstreams, each led by a senior executive of the Bank. While Workstreams broadly coincide with the accountable executives' functional areas, cross-functional collaboration is strongly encouraged and enabled by the Transformation Program. During 2021, the Program was structured along specific Workstreams as follows:

- **Healthy Balance Sheet:** relating to the reduction of NPEs and resolution of legacy balance sheet issues, including real estate assets.
  - **Efficiency & Agility:** relating to the timely and sustainable reduction of costs (personnel and non-personnel costs), and the delivery of a Bank-wide Value Based Management (VBM) framework.
  - **Best Bank for our Clients:** relating to Retail and Corporate lending strategy, client service and coverage model, improved palette of RM tools and systems, enhanced product offerings with cross-selling focus, digital channels, and branch network transformation, as well as the use of analytics in commercial actions.
  - **Technology & Processes:** relating to the underlying technological platforms of the Bank, as well as to the reengineering of its core processes towards an efficient and agile operating model.
  - **People, Organization & Culture:** relating to the redesign of the overall Human Resources framework, including a leaner organizational structure and a unified, comprehensive, and rigorous Performance Management System.
  - **Visibility, Controls & Compliance:** relating to the delivery of a new Credit framework, the management of non-financial and AML risks, the enhancement of risk culture and the delivery of a robust system of internal controls.
  - **Environment, Society & Governance:** relating to the incorporation of ESG considerations in NBG's strategy and processes, and to the revamp of NBG's brand image.
- Completing the clean-up of NPEs, while retaining best-in-class capital ratios; revision of Troubled Assets operating model following completion of NPE clean-up;
  - Further enhancing efficiency and productivity through continuous improvements in the Bank's business and operating model; reducing areas of high external spend such as real estate, factoring in a more flexible working model.
  - Boosting revenue generation through an increased focus on cross-selling and fee generation opportunities in Retail banking and through deepening large client relationships and broadening the SME client base in Corporate banking;
    - In the case of Retail banking, this will be achieved through segment-focused relationship managers (primarily for Small Business and Premium), a stronger focus on fee-generating products (e.g., investment products and cards) and sales enhancement through third party partnerships (e.g., with retailers).
    - In the case of Corporate banking, this will be achieved through an increase in relationship managers' capacity and time spent on sales, enhanced service levels, and a drive to increase sales of ancillary products and fees through the Bank's Corporate Transaction Banking (CTB) unit.
  - Implementing the new CBS to enable revenue generation and cost efficiencies in the medium term, enhancing digital and data infrastructure, as well as migrating to a cloud-enabled environment; rolling out the required infrastructure to transition to a paperless Bank; Increasing the level of centralisation and optimizing core processes through simplification, centralization, and automation levers;
  - Continuing to modernise HR processes and practices to attract, mobilise and incentivise our people; continuing flagship leadership programs for high potential talent, coupled with "on demand" learning and targeted curricula for priority roles; rolling out a comprehensive program to enhance the Bank's corporate culture and desired behaviours in line with our core values;
  - Embedding a holistic Environment, Social and Governance (ESG) framework across the organization, addressing the risks emanating from climate change, while at the same time capturing the emerging opportunities; delivering impact in society in areas of high priority, including, among others, diversity and inclusion, culture and creativity, and digital literacy.

The Program was initially structured into six-month Seasons. This setup helped gain the necessary pace in the early years and ensured that the Bank remained focused. As of 2022, recognizing the increased maturity and ownership of the involved stakeholders, the Program transitioned to an annual planning horizon, in line with the budget, IT plan and performance management cycles of the Bank.

The Bank maintains its agility as new Initiatives can be added to the Transformation Program, while existing ones are adjusted or removed throughout the year, in line with Business developments and strategic priorities.

#### Transformation Program priorities for 2022

During 2022, the Bank is pursuing the following strategic priorities:

#### COVID-19 Statement and Impact on Transformation Program

NBG moved fast since February 2020 in terms of addressing the impact of the COVID-19 pandemic. Our immediate priorities included securing the health and safety of our employees and customers, while immediately readjusting the Transformation Program in response to COVID-19. This included introducing new initiatives on Work from Home (WFH) operating model, resources' redeployment to speed up digital efforts and relief measures to support our customers. We have also adapted key customer-facing processes to allow for remote functionality, while introducing appropriate internal controls and operational risk mitigation actions.



## 4 RISK MANAGEMENT FRAMEWORK

### 4.1 Basic Principles and governance structure of the Group risk management

Risk management and control play a fundamental role in the overall strategy of the Group, aiming to both effectively manage the risks of the organization and to align with the legal and regulatory requirements.

The Group aims at adopting best practices regarding risk governance, taking into account all relevant guidelines and regulatory requirements, as set by the Basel Committee on Banking Supervision (BCBS), the European Banking Authority (EBA), the European Central Bank (ECB) \ Single Supervisory Mechanism (SSM), the Bank of Greece (BoG), the Hellenic Capital Market Commission (HCMC) legislation, as well as any decisions of the competent authorities supervising the Group's entities.

#### Group Risk Management Governance Framework

Group Risk management at NBG has a structured and tiered approach, based on a number of governance bodies, internal policies and procedures, and controls framework.

The Board of Directors bears ultimate accountability for NBG's risk position. It signs off on the risk strategy and risk appetite, and monitors the effectiveness of risk governance and management advised by its two specialized committees: the Board Risk Committee (BRC) and the Board Audit Committee (BAC). The Bank's (Senior) Executive Committee (ExCo) and other committees, supporting the (Senior) Executive Committee are in charge of daily management actions and steer of the business. The Group Chief Risk Officer (CRO) is a member of the (Senior) Executive Committee. The CRO has direct access to the Board of Directors, has delegated decision-authority for executive matters over Risk and leads the Group Risk Management Function.

The Group Risk management Function has specialized teams per risk type. The Group Risk Management Function's teams conduct day-to-day risk management activities according to policies and procedures as approved by the BRC, the Senior Executive Committee and other executive committees. The perimeter is based on the industry standard "Three Lines of Defense" model (please see below). The Group Risk Management Function's activities are supported by underlying systems and infrastructure. Finally, risk culture is viewed as a core component of effective risk management, with the tone and example set by the Board of Directors and the Senior Management. Objective of the Bank is to establish a consistent Risk Culture across all Units.

Hence, there are four layers relevant to Risk Management, all rolling up into the Board of Directors:

#### 1. Oversight and approval

At the top of the house, the members of the Board are responsible for oversight and approval on governance structures of NBG, ensuring the right frameworks and policies are in place to ensure the bank can be effectively managed.

#### 2. Executive management actions & sign-off

The Executive management layer (ExCo and other executive committees) decides on management actions, signs off on materials produced and reported, and actively steers the bank.

#### 3. Methodology and framework

Procedures and methodologies are in place to guide risk management, e.g. credit approval procedures, model development and validation, product assessments.

#### 4. Execution and analysis

The execution layer is in charge of implementing the frameworks, models and policies set forth by the aforementioned layers, and provide the Board and the executive committees with relevant analyses and results to base their decisions upon.

#### The Board Risk Committee

The Group has clearly defined its risk appetite and has established a risk strategy and risk management policies. Ultimately responsible for the development and application of this general framework of risk management at a Group level is the Board of Directors (the Board) supported by the Board Risk Committee (BRC).

The BRC reviews and proposes to the Board on an annual basis or more frequently if necessary, the Bank's risk strategy and risk appetite for approval, and ensures that the Bank's risk appetite and risk strategy are clearly communicated throughout the Bank and form the basis on which risk policies and risk limits are established at group, business and/or regional level. It also reviews and proposes to the Board of Directors for approval all risk management frameworks, methodologies and policies for identifying, measuring, evaluating, monitoring, reporting and mitigating risks, including frameworks, methodologies and policies related to credit risk (inclusive of material aspects of the credit rating systems), market risk, liquidity risk, interest rate risk in the banking book, operational risk, model risk and model validation. The BRC has the responsibility to review reports and evaluate the overall risk exposure of the Bank and the Group on a regular basis, taking into account the approved risk strategy and the business plan of the Group, to develop proposals and recommend corrective actions for consideration by the Board regarding any matter within its purview. The proposals to the BRC are submitted by the Group Chief Risk Officer (CRO).

The Committee has two roles, namely it shall operate a) as the Board Risk Management Committee and b) as the Board Committee Responsible for Non-Performing Loans/Exposures (NPLs/NPEs) prescribed by Art. 10 par. 8 of Law 3864/2010 as in force.

Within the context of the Board Working Model of the Bank, topics related to areas of responsibility of the Committee shall also be discussed at the Board of Directors level as this may be required particularly as regards issues pertaining to important matters which shall be discussed at Board of Directors level.

The BRC convenes regularly at least on a monthly basis, and on an ad hoc basis whenever the Committee Chair deems fit.

During 2021, the Board Risk Committee convened sixteen times. In the context of its responsibilities and during the course of the year, key workings of the Committee included:

- Review of Risk Appetite Framework & Risk and Capital Strategy and ongoing monitoring of compliance.

## RISK MANAGEMENT FRAMEWORK

- Update and implementation of the RCSA Guidelines at Group Level.
- Update of ILAAP Framework, Market Risk Management Framework (Policies and the VaR/sVaR Model Methodology document), IFRS 9 Models (Mortgage PD/LGD, Consumer Term Loans PD, Corporate LGD), Operational Risk Management Framework (Policy, Documents).
- Submission of ICAAP, ILAAP, NPE Plan & NPE Strategy Implementation report.
- Regular monitoring of post-moratoria implications and effective response to Supervisory reviews throughout the year.
- Review of Policies (e.g. NPE and Forbearance Policy, Treasury Market Risk Policy).
- Review of top corporate exposures, NBG Loan portfolio Quality Benchmarking, NBG cybersecurity posture.
- Review of Models used and respective Model Validation Unit assessments (VaR/sVaR, IFRS 9, Pillar II, Corporate Rating Models).
- Execution/delivery of 2021 ECB Stress Test; launch of 2022 ECB Climate Risk Stress Test preparation.
- Review of Stress scenarios & sensitivity analysis contributing to the Strategy setting and evaluation process, including the Budget for 2022.
- Implementation of Risk Awareness Enhancement Initiatives.
- Identification and monitoring of Top Operational Risks of the Group.

The BRC shall be composed exclusively of non-executive Board members. One member shall be the HFSF Representative at the Board of Directors. Committee members shall be at least three in number, the majority of which (excluding the HFSF representative and rounded to the nearest whole number) shall be independent non-executive members of the Board, in accordance with the definition of independence specified in the relevant framework, particularly Article 9 of Greek Law 4706/2020, and the Bank's Corporate Governance Code. The members of the Committee (including the Chair and Vice-Chair) are appointed by the Board of the Bank, following recommendation by the Board's Corporate Governance and Nominations Committee. The Committee is currently composed of four non-executive Members, of which three are independent and one is the HFSF Representative at the Board of Directors. The Committee members shall be appointed for a term of one year, which shall be automatically renewed for successive one-year renewal terms, unless otherwise decided. In any case, the mandates of the Committee members shall automatically expire if they cease to be members of the NBG Board of Directors.

In January 2017 the Committee Charter was amended, introducing the dual role of the BRC mentioned above, namely its operation a) as the Board Risk Management Committee and b) as the Board Committee Responsible for Non-Performing Loans/Exposures (NPLs/NPEs) prescribed by Art. 10 par. 8 of Law 3864/2010 as in force. The Committee Charter was further updated in February 2019, in July 2019, in March 2021 and further in March 2022, and is available on the Bank's website [www.nbg.gr](http://www.nbg.gr)

### “Three Lines of defence” model in the Group's risk management

The Group's risk management is spread on three different levels, in order to create Three Lines of Defense, as follows:

- **First line:** The risk taking units (e.g. credit originating departments, Treasury) are responsible for assessing and minimizing risks for a given level of expected return by establishing and implementing internal rules and controls to the on-going business.
- **Second line:** The Group Risk Management Function oversees, monitors, controls and quantifies risks; provides appropriate tools and methodologies, coordination and assistance to lines of business; provides input towards the measurement of risk adjusted performance across business line; participates in the credit approval process for the Group's corporate banking, retail banking and subsidiaries portfolios; performs independent assessment of credit risk undertaking in respect of each portfolio and has the right of veto; proposes appropriate risk mitigation measures, supported by local Risk Management (for subsidiaries) and specialized units (for the Bank). Additionally, under the Second line:
  - The Group Compliance Function ensures that all front line Units meet regulatory and other compliance requirements, through monitoring, advising and training.
  - The Group Risk Management Function cooperates with the Business Processes Division, the Group Internal Control Function, the Group CyberSecurity Division, the Group Security Division and the Legal Division.

These Divisions provide support, advice, appropriate tools and methodologies, acting as control units for specific subcategories of operational risk (e.g. legal risk, Information & Communication Technology (ICT) risk) as well as ensuring the Bank's business continuity and mitigation of physical threats.

- **Third line:** The Internal Audit function of the Group, which reports directly to the Board of Directors through the Audit Committee, complements the risk management framework, acting as an independent reviewer, focusing on the effectiveness of the risk management framework and control environment.

The duties and responsibilities of all lines of defense are clearly identified and separated, and the relevant Units are sufficiently independent.

### The Group Risk Management Function

The organizational chart and reporting lines of NBG Group Risk Management Function are depicted in the figure below:

## RISK MANAGEMENT FRAMEWORK

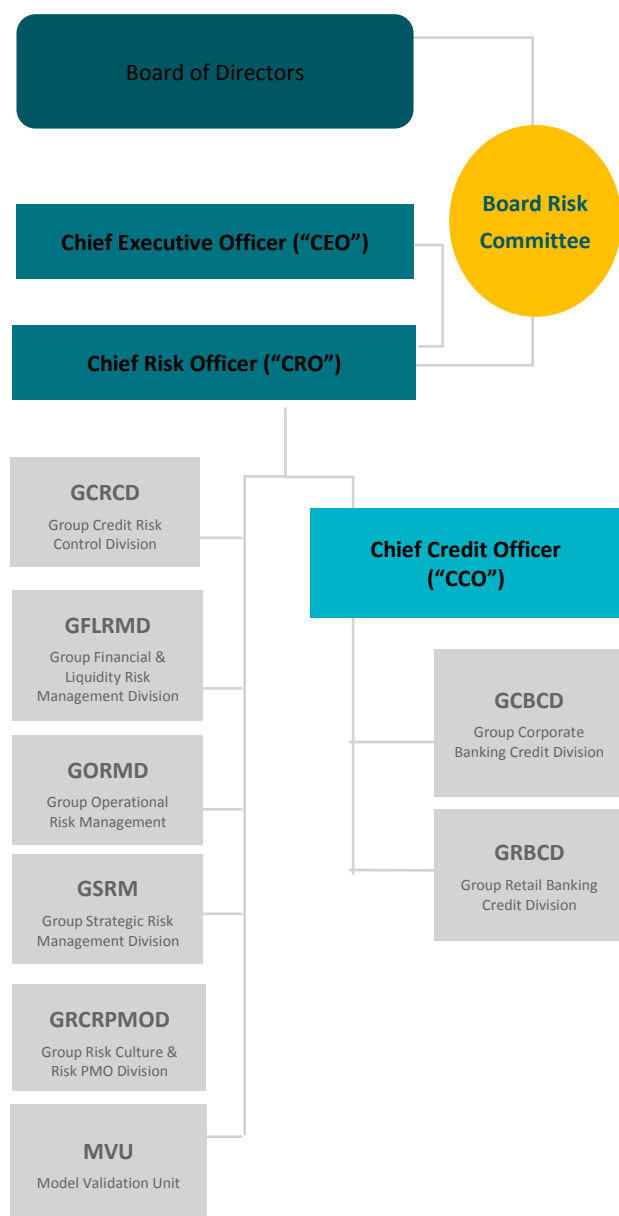


Figure 2: Organizational Chart of Risk Function

The CRO reports to the CEO, has direct access to the BRC and is its main rapporteur. The CCO, is operating under the CRO, supervises two Credit Divisions, as above, which are involved in the credit approval process for the Group's corporate banking, retail banking and subsidiaries' portfolios.

### Group Risk Management

The Bank acknowledges the need for efficient risk management and has established five specialized Divisions and one Unit: the Group Credit Risk Control Division (GCRCD), the Group Financial and Liquidity Risk Management Division (GFLRMD), the Group Operational Risk Management Division (GORMD), the Group Strategic Risk Management Division (GSRM), the Group Risk Culture and Risk PMO Division (GRCRPMOD) and the Model Validation Unit (MVU), to properly identify, measure, analyze manage, and report the risks, entailed in all its business activities. All risk management units of the Group subsidiaries adequately report to the aforementioned Divisions/Unit.

In addition, the two Credit Divisions, which are independent of the credit granting units, are involved in the credit approval process for the Group's corporate banking, retail banking and subsidiaries portfolios. They perform an independent assessment of the credit risk undertaking in respect of each portfolio and have the right of veto (see [Section 4.2](#)).

Based on its charter, the mission and the constitution of each Division/Unit are as follows:

#### Group Credit Risk Control Division (GCRCD)

The mission of the GCRCD is to:

- specify and implement credit risk policies emphasizing on rating systems, risk assessment models and risk parameters, according to the guidelines set by the Bank's Board of Directors;
- establish guidelines for the development of methodologies for Expected Credit Loss (ECL) and its components, i.e. Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) for each segment of corporate and retail asset class;
- implement a number of clearly defined and independent credit risk controls on credit risk models, which enable an effective oversight of risks emerging from credit activities at all levels. These controls are appropriately executed, and the results are documented and communicated to the business units on a quarterly basis. GCRCD itself monitors these controls on a quarterly basis, assuring they are operating effectively and remain altogether sufficient for the purposes they were established;
- provide regular assurance that models continue to perform adequately, thus complementing the periodic validation and usage reviews;
- assess the adequacy of methods and systems that aim to analyze, measure, monitor, control and report credit risk undertaken by the Bank and other financial institutions of the Group;
- estimate Regulatory Capital required in respect with Credit Risk and prepare relevant regulatory and Management Information System (MIS) reports;
- coordinate all involved units and stakeholders for the estimation of Internal Capital against all material risks (ICAAP), perform scenario and sensitivity analysis for specific credit risk cases, prepare and submit the required ICAAP package to the regulatory authorities; and
- coordinate all involved Units and stakeholders during the review and update of the RAF document, provide significant input to the update of the RAF across RAF elements, including, in addition to RAF indicators and thresholds, governance arrangements, principles that govern the Risk Appetite Framework ("RAF").

The GCRCD consists of the :

- Credit Risk Control & Model Development Sector, which in turn consists of the Corporate Credit Risk Control Subdivision, the Retail Credit Risk Control Subdivision, the Corporate Credit Risk Model Development Subdivision, and the Retail Credit Risk Model Development Subdivision;
- Credit Risk Reporting (Regulatory & Internal) Sector, which in turn consists of the Credit Risk Regulatory Reporting Subdivision and Credit Risk Internal Reporting Subdivision;
- ICAAP, & Risk Appetite Framework Monitoring Subdivision; Subdivision; and
- Risk Management Operations Support Subdivision.

## RISK MANAGEMENT FRAMEWORK

**Group Financial & Liquidity Risk Management Division (GFLRMD)**

The mission of the GFLRMD is to:

- plan, specify, implement and introduce market, counterparty, liquidity and Interest Rate Risk in the Banking Book (IRRBB) risk policies, under the guidelines of the Bank's Board of Directors;
- develop and implement in-house models for pricing and risk measurement purposes;
- run appropriate tests to ensure that the models continue to perform adequately, thus complementing the periodic validation reviews;
- assess the adequacy of methods and systems that aim to analyze, measure, monitor, control and report the aforementioned risks undertaken by the Bank and other financial institutions of the Group;
- independently evaluate financial products, assets and liabilities of the Bank and the Group;
- estimate Regulatory Capital required in respect with market risk and counterparty credit risk, calculate the regulatory metrics for Liquidity Risk and IRRBB and prepare relevant regulatory and MIS reports; and
- provide timely and accurate information to the Bank's senior competent bodies (the BRC and the Asset Liability Committee (ALCO) and the Regulator (the SSM), with sufficient explanatory and investigation capabilities on the materiality and trend of the aforementioned risks, as well as handle all issues pertaining to market, counterparty, liquidity and IRRBB risks, under the guidelines and specific decisions of the BRC, the ALCO and the SSM.

The GFLRMD consists of the:

- Market Risk & Counterparty Credit Risk Management Sector, which in turn consists of the:
  - Market Risk Management Subdivision;
  - Counterparty Credit Risk Subdivision;
  - Market Risk and Counterparty Credit Risk Stress-testing and ICAAP framework monitoring Subdivision.
- IRRBB and Liquidity Risk Management Sector which in turn consists of the:
  - IRRBB Management Subdivision;
  - Liquidity Risk Management Subdivision;
  - ILAAP Framework Monitoring Subdivision;
  - IRRBB Stress-testing Subdivision.
- Financial Risks' Models Development Subdivision.

**Group Operational Risk Management Division (GORMD)**

The mission of the GORMD is to:

- design, propose, support and periodically validate the Operational Risk Management Framework ("ORMF"), ensuring that it is aligned with the best practices, the regulatory requirements and the directions set by the Board of Directors;
- ensure the development of policies, methods and systems for the identification, measurement and monitoring of operational risks and their periodic assessment and validation;
- design and implement training programs on operational risk, the use and implementation of programs, methods and systems as well as any other action aiming at knowledge sharing and the establishment of operational risk culture Group-wide;

- address all operational risk related issues as per the directions and decisions of the BRC;
- continuously monitor and review the Group operational risk profile and report to the Management and the Supervisory Authorities.

The GORMD consists of the:

- Operational Risk Framework Implementation Sector, which in turn consists of the Operational Risk Program Implementation, the Information & Communication Technology ("ICT") Risks Oversight and the Operational Risk Internal Events Collection Subdivisions;
- Operational Risk Framework Development Subdivision;
- Operational Risk Reporting Subdivision; and
- Operational Risk Awareness and Training Subdivision.

**Group Strategic Risk Management Division (GSRM)**

The mission of GSRM, is shaped taking into account the wide spectrum of risks that may be correlated to the Group's Strategy, in alignment with the prevailing business needs. GSRM is responsible for:

- monitoring, analyzing and evaluating risks that are evident or related to the Business Strategy of the Group and may negatively impact the profitability and the dynamic structure of the Balance Sheet for both the Bank and/or the Group;
- analyzing the hypothesis and assumptions embedded in the Strategic Planning, Business Planning (business model mapping), and Future Profitability;
- analyzing of risks related to the implementation of the Business Strategy;
- analyzing risks and potential impacts measured via appropriate Key Risk Indicators (KRI's) and stemming from deviations in relation to the expressed targets set in the Business Strategy & Business Planning;
- developing scenarios and the execution of Stress Testing Exercises;
- performing sensitivity analyses related to the risks entailed in the dynamic profitability evolution and of the Asset & Liability Structure;
- monitoring the development, execution, and revising of financial targets related to the Strategy of NPE's;
- selecting and using appropriate performance measures which are adjusted based on risk (risk-adjusted performance metrics) aiming to evaluate the Strategy Risks;
- executing of industry wide Stress Test exercises according to regulatory demands and guidelines (EBA, SSM, etc) in cooperation with the involved units;
- executing modelling and sensitivity analyses under different scenarios;
- monitoring of the evolution of NPEs; and
- monitoring of the dynamic evolution of Assets & Liabilities (Dynamic Asset Liability Management (ALM)).

The GSRM Consists of the:

- Business Strategy Risk Monitoring Sector which in turn consists of the Profitability Risk Monitoring Subdivision, the Risk Adjusted Performance Monitoring Subdivision & the Strategic Risk Evaluation & Action Planning Subdivision;
- Scenario Planning & Analysis Sector which in turn consists of the NPE Monitoring Subdivision, the Stress Testing & Sensitivity Analysis Subdivision & the Strategic Risk Evaluation & Unified platform management Subdivision; and
- Dynamic Modelling & Asset Liability Management Subdivision.



## RISK MANAGEMENT FRAMEWORK

**Group Risk Culture & Risk PMO Division (GRCRPMOD)**

The mission of the GRCRPMOD is to:

- measure, monitor, control and report the Group's Risk Culture to Senior Management, as well as to develop and coordinate, in collaboration with the Risk Culture stakeholders, the Risk awareness enhancement activities for the reinforcement of Risk Culture across the Group;
- coordinate project management activities related to Risk Management Function projects;
- support the Risk Management Function's Units with regards to activities that fall under the responsibilities of the Segment Risk and Control Officer ("SRCO").

The GRCRPMOD consists of the following :

- the Risk Culture Subdivision;
- the Risk PMO Subdivision;
- the Risk Segment Risk & Control Subdivision.

**Model Validation Unit (MVU)**

MVU's responsibility is to:

- establish, manage, and enforce the Model Validation Policy based on applicable regulatory guidance and requirements;
- develop new and enhance the existing Model Risk Management standards;
- update the Model Validation Policy based on applicable regulatory guidance and requirements;
- communicate and escalate model risk assessments to the Board of Directors, the BRC, the CRO and the Senior Management;
- independently validate and approve new and existing models based on their materiality;
- document material model changes in the validation reports;
- recertify models on a regular basis, depending on their materiality and review the results of on-going model monitoring.

The MVU consists of the:

- Market Risk Models Validation Subdivision;
- Retail Credit Risk Models Validation Subdivision; and
- Corporate Credit Risk Models Validation Subdivision.

**Group Corporate Banking Credit Division (GCBCD)**

The mission of the GCBCD is to participate in the independent function of credit risk management of the corporate portfolio of the Bank and its Subsidiaries and Branches outside Greece. GCBCD's key responsibilities are:

- participation in the Credit Committees for corporate clients with the right of veto;
- review all Corporate (incl. SAU) credit proposals, submitted for assessment and approval by the competent credit committees;
- review the outcome of the individual assessment for impairment of lending exposures performed by the Credit Granting units for the corporate portfolio of the Bank;
- participation in the formulation / revision of Corporate Credit Policies and Credit Procedures Manuals and other relative regulations;
- drafting and circulation of guidelines / instructions for the effective implementation of relevant policies and regulations;
- participation in the classification process of Obligors;
- Monitoring of the implementation and the timely management of the Early Warning alerts for each corporate client of the Bank as well as the outcome of relevant actions;

- Monitoring, on a quarterly basis, the proper use of existing internal rating models for corporate clients of the Bank; and
- Monitoring on a monthly basis of the timely renewal of credit ratings of corporate clients of the Bank.

**Group Retail Banking Credit Division (GRBCD)**

The mission of the GRBCD is to provide an independent assessment of domestic and international retail credit. This is achieved through the following:

- manage the Retail Credit Policy in co-operation with GRCRD;
- form the relevant Retail Banking Regulations;
- participate in the development of Retail products in all stages of the credit cycle (new credit, rescheduling, restructuring) and determine the framework and dynamic controls of the relevant credit criteria;
- set in detail through the frameworks referred in the relevant Regulations the appropriate approval procedure;
- participate in decision-making, in accordance with the approval authority tables, based on the credit proposals of the relevant Credit Granting units, which are solely responsible for the correct presentation of the quantitative and qualitative data contained in those. The GRBCD reviews the correct implementation of the Credit Policy and Regulations.

The GRBCD consists of the:

- Retail Banking Credit Policy Subdivision (Domestic);
- Applications Assessment Subdivision (Domestic);
- Portfolio Analysis (Domestic) & International Subsidiaries Retail Credit Subdivision; and
- Credit Policy Implementation Review Subdivision.

Each Division/Unit has distinct responsibilities and covers specific types of risk and all Divisions/Units report ultimately to the CRO.

**Risk Appetite Framework**

Following work during 2018 and early 2019, the Bank recently established a new, enhanced Risk Appetite Framework (RAF) adhering to the best international practices.

GRCRD has in place Risk Appetite Framework (RAF). The objective of the RAF is to set out the level of risk that the Group is willing to take in pursuit of its strategic objectives, also outlining the key principles and rules that govern the risk appetite setting. The RAF constitutes an integral part of the Group's Risk & Capital Strategy and the overall Group Risk Management Framework. The RAF has been developed in order to be used as a key management tool to better align business strategy, financial targets and risk management, and enable a balance between risk and return. It is perceived as a reference point for all relevant stakeholders within the Bank, as well as the supervisory bodies, for the assessment of whether the undertaken business endeavors are consistent with the respective risk appetite.

An effective RAF is fundamental to a strong risk management and governance framework. The RAF is not just a Key Performance Indicator (KPI) monitoring system; it constitutes an essential mechanism to support the Board of Directors' oversight of the strategy execution within the risk boundaries that the Group is willing to operate. Through the RAF, overall aspirations of the Board of Directors are translated to specific statements and risk metrics, enabling planning and execution, while promoting firm-wide thinking. In 2021, the RAF was updated to reflect the latest

## RISK MANAGEMENT FRAMEWORK

developments and to get aligned with the new Business Plan of the Group.

NBG has in place an effective RAF that:

- is formed by both top-down Board of Directors guidance and leadership and bottom-up involvement of the Senior Management and other Stakeholders, and understood and practiced across all levels of the Bank;
- incorporates quantitative risk metrics and qualitative Risk Appetite statements that are easy to communicate and assimilate;
- supports Group's business strategy by ensuring that business objectives are pursued in a risk-controlled manner that allows to preserve earnings stability and protect against unforeseen losses;
- reflects the types and level of risk that the Bank is willing to operate within, based on its overall risk appetite and risk profile, sets the guidelines for new products development, as well as the maximum level of risk that the Group can withstand, through the risk capacity;
- contributes in promoting a risk culture across the Group;
- is aligned with other associated key processes of the Bank.

Within this context, the RAF allows:

- to strengthen the ability to identify, assess, manage and mitigate risks;
- to facilitate the monitoring and communication of the Bank's risk profile quickly and effectively.

The assessment of the Bank's risk profile against the RAF is an ongoing and iterative process. With regards to the timing that the RAF update takes place (as part of the regular annual update process), the interaction with other key processes of the Bank is taken into consideration. Specific focus is placed to RAF's interplay with the Business Plan, as the two processes feed into each other: in certain cases the risk appetite is expected to act as backstop / constraint to the Business Plan, while for other cases, the Business Plan provides input for setting risk tolerance levels. RAF is also interrelated with other key processes such as ICAAP, ILAAP, Recovery Plan, NPE Plan.

### Risk Profile Assessment

The ongoing assessment of the Group's risk profile is a key component of the risk management process and comprises a series of specific steps. Every type of risk is analyzed and assessed on the basis of its specific characteristics and the qualitative features (policies, procedures, control mechanisms) applied in its management. A common component is the "internal capital" approach, which enables different types of risks to be captured under the same (and, therefore, comparable) terms, and also enables the risk profile of the Group to be expressed in a single measure ("total internal capital").

The ICAAP framework provides a list of the main risk categories and sub-categories covered by the ICAAP, as well as information regarding their definitions, risk management framework and the methodologies and models used for their assessment. Under ICAAP, the Group plans and monitors its capital adequacy by utilizing two quantification/ estimation approaches for capital requirements:

- Regulatory capital, whereby regulatory rules are used to calculate the capital requirement.
- Internal capital, whereby internal methodologies are used to calculate the capital requirement.

Apart from the ICAAP Framework, NBG has also developed an ICAAP Methodological Manual which describes in detail the methodologies used by the NBG Group for each material risk, aiming to measure internal capital requirements where quantification in the near-to-medium term is deemed possible.

### Internal Capital Adequacy Assessment Process (ICAAP)

**Table 1:** Material Risk Types/Themes & their treatment

#### Material Risk Types /Themes and their treatment in 2021 ICAAP

Risk Types/Risk Themes	Capital requirements approaches		
	Regulatory Capital	Internal Capital	Qualitative Analysis
<b>Credit Risk</b>	✓	✓	✓
Concentration Risk	-	✓	✓
Settlement Risk	-	-	✓
Residual Risk	-	-	✓
Securitization Risk	-	-	✓
<b>Market Risk</b>	✓	✓	✓
Interest Rate Risk	✓	✓	✓
Issuer Risk	✓	✓	✓
Country Risk	-	-	✓
Equity Risk	✓	✓	✓
Underwriting Risk	-	-	✓
Foreign Exchange Risk	✓	✓	✓
Commodity Risk	✓	✓	✓
Counterparty Risk	✓	✓	✓
Gamma Risk & Vega Risk	✓	✓	✓
<b>IRRBB</b>	-	✓	✓
<b>Operational Risk</b>	✓	✓	✓
Conduct Risk	-	✓	✓
Information & Communication Technology ("ICT") Risk	-	✓	✓
Model Risk	-	✓	✓
Legal Risk	-	✓	✓
Environmental Risk (Climate Change)	-	✓	✓
Money Laundering Risk	-	✓	✓
Outsourcing Risk	-	✓	✓
Compliance Risk	-	-	✓
<b>Reputational Risk</b>	-	-	✓
<b>Strategic Risk</b>	-	-	✓
<b>Business Risk</b>	-	✓	✓
<b>Capital Access Risk</b>	-	-	✓
<b>Liquidity Risk</b>	-	-	✓
<b>Real Estate Risk</b>	-	✓	✓
<b>Pension Risk</b>	-	-	✓
<b>Country Risk</b>	-	✓	✓

The guides on ICAAP and ILAAP published by the ECB, which are not legally binding, expect Banks to assess the risks they face, and ensure, in a forward-looking manner, that all material risks are identified, effectively managed and covered by adequate capital and liquidity levels at all times. The ICAAP and ILAAP are, above all, internal processes and remain the responsibility of individual institutions to implement in a proportionate manner. As the ICAAP and ILAAP are expected to play an even greater role in the SREP in the future, Banks are encouraged to continuously improve these processes, taking into consideration the seven ECB principles, below:

## RISK MANAGEMENT FRAMEWORK

- **Principle 1:** The management body is responsible for the sound governance of the ICAAP/ILAAP.
- **Principle 2:** The ICAAP/ILAAP is an integral part of the overall management framework.
- **Principle 3:** The ICAAP/ILAAP contribute fundamentally to the continuity of the institution by ensuring its capital/liquidity adequacy from different perspectives.
- **Principle 4:** All material risks are identified and taken into account in the ICAAP/ILAAP.
- **Principle 5:** For ICAAP the internal capital is of high quality and clearly defined. For ILAAP the internal liquidity buffers are of high quality and clearly defined: the internal stable sources of funding are clearly defined.
- **Principle 6:** ICAAP/ILAAP risk quantification methodologies are adequate, consistent and independently validated.
- **Principle 7:** Regular stress testing aims at ensuring capital/liquidity adequacy in adverse circumstances.

NBG Group has devoted substantial resources to the assessment of its capital adequacy, relating to both risk and capital management. The process is continuously developed and formalized so as to enhance business benefits and support the strategic aspirations of NBG Group.

ICAAP objectives are the:

- proper identification, measurement, control and overall assessment of all material risks;
- development of appropriate systems to measure and manage those risks;
- evaluation of capital required to cover those risks (the “internal capital”).

The term “internal capital” refers to the amount of own funds adequate to cover losses at a specified confidence level within a certain time horizon (both set in accordance with the RAF).

The Group has created an analytical ICAAP Framework for the annual implementation of the ICAAP. The ICAAP Framework is formally documented and describes the components of ICAAP at both Group and Bank level in detail. The respective framework comprises the following:

- Group risk profile assessment;
- Risk measurement and internal capital adequacy assessment;
- Stress testing development, analysis and evaluation;
- ICAAP reporting;
- ICAAP documentation.

Both the Board of Directors and the Bank’s Executive Committees are actively involved and support the ICAAP. Detailed roles and responsibilities are described in the ICAAP Framework document. The BRC approves the confidence interval for “internal capital”, reviews the proper use of risk parameters and/or scenarios where appropriate, and ensures that all forms of risk are effectively covered, by means of integrated controls, specialized treatment, and proper coordination at Group level. The BoD bears ultimate responsibility for the adequacy and proper execution of the ICAAP.

ICAAP’s design and implementation Framework concerns the entire Group’s material risks. The parameters taken into account are the size of the relevant Business Unit/Group’s Subsidiary, the exposure per risk type and the risk methodology and measurement approach for each type of risk.

The identification, evaluation and mapping of risks to each relevant Business Unit/Group subsidiary is a core ICAAP procedure. Risks’ materiality assessment is performed on the basis of certain

quantitative (e.g. exposure as percentage of the Group RWAs) and qualitative criteria (e.g. established framework of risk management policies, procedures and systems, governance framework and specific roles and responsibilities of relevant units, limits setting and evaluation).

The calculation of NBG Group “Total Internal Capital” consists of two steps: In the first step, internal capital per risk type is calculated on a Group basis. NBG Group has developed methodologies allowing the calculation of the required internal capital for quantifiable risks. These are reassessed on a regular basis and upgraded in accordance with the global best practices. In the second step, internal capital per risk type is summed up to yield the Group’s “Total Internal Capital”.

Capital allocation aims at distributing the “Internal Capital” to the Business Units and Subsidiaries so that ICAAP connects business decisions and performance measurement.

For 2021, the Bank implemented the ICAAP by estimating the relevant internal capital for all major risk types at Group level. Calculations were based on methodologies already developed in the ICAAP Framework. Moreover, the Group conducted a bank-wide macro Stress Test exercise, relating to the evolution of its CET I Funds under adverse scenarios (so as to ensure relevance and adequacy of the outcome with a realistic and non-catastrophic forward-looking view of downside tail risks).

In addition to the institution-wide bottom-up solvency stress test, a number of Business risk and portfolio stress tests as well as reverse stress tests and sensitivity analysis were also performed, aiming at increasing the Group’s awareness of its vulnerabilities.

It should be noted that the Bank implements, monitors and uses the ICAAP aiming at achieving full compliance with the EBA and ECB guidelines and standards concerning ICAAP/ILAAP, the Supervisory Review and Evaluation Process (“SREP”) and Stress Testing.

#### Internal Liquidity Adequacy Assessment Process (ILAAP)

The scope of ILAAP is to assess that the Group has adequate liquidity sources to ensure that its business operations are not disrupted, both in a going concern status, as well as under stressed conditions. Within the ILAAP the Group evaluates its liquidity and funding risk in the context of a management framework of established policies, systems and procedures for their identification, management, measurement and monitoring.

The ILAAP is an integrated process, therefore it is aligned with the Group’s Risk Management Framework and takes into account its current operating environment. Moreover, besides describing the Group’s current liquidity state, it further serves as a forward-looking assessment, by depicting the prospective liquidity position, upon the execution of the Bank’s Funding Plan. Finally, the ILAAP examines the potential impact of the realization of extreme stress scenarios, on the Bank’s liquidity position, ensuring that the Group can withstand such severe shocks and continue operating.

#### BCBS 239

BCBS 239 is the Basel Committee on Banking Supervision’s standard with an overall objective to strengthen banks’ risk data aggregation capabilities and internal risk reporting practices, in turn, enhancing the Group risk management and decision making processes at banks.

NBG initiated BCBS 239 program on April 2019 to reach the desired target state of compliance with the 3 main pillars, namely Governance and Infrastructure, Risk Data Aggregation Capabilities and Risk Reporting Practices, which embed all the main principles set by the standard. More specifically, the Bank completed the implementation of a set of mitigating actions, such as:

## RISK MANAGEMENT FRAMEWORK

- Development of 40 Service Level Agreements, standardizing data exchanges between Risk Divisions and Non-Risk Divisions or Subsidiaries of the Bank and providing a clear mapping of the data flow and the dependencies among the involved counterparties;
- Review of the IRRBB framework;
- Establishment of a formal adjustment log within Data Governance Tool and monitoring functionality;
- Standardization of Risk documentation and alignment to a common template;
- Assessment of NPE reporting process and establishment of quality metrics for the NPE stock;
- Integration of the BCBS 239 self-assessment function.

The Bank further enhances compliance with all 11 overarching principles for effective risk data aggregation, governance and reporting, through actions such as improvement in automation in data management and reporting process, monitoring and documentation of data quality controls.

### New developments within 2021 and 2022 initiatives

#### NBG Risk Taxonomy

In order to integrate Enterprise Risk Management (“ERM”) practices and enhance the overall risk Group Management Framework, the Risk Management Function reviewed and updated the NBG Risk Taxonomy Framework, in collaboration with all involved parties. NBG Risk Taxonomy was approved by the Senior Executive Committee in February 2022.

The Framework aims to:

- establish a common language allowing for the effective classification and coverage of the entire range of the risks that NBG faces;
- describe the associated governance and review process;
- update and outline the Risk Types that the Group is exposed to, in order to serve as a unique point of reference for all relevant risk management processes.

In terms of taxonomy content, Risk Types were reviewed and updated with additional emphasis on the Non-Financial Risks (Operational Risk and Strategic Risk) as well as on the pursuit of alignment with new regulatory requirements (i.e., the incorporation of ESG risk factors) and best practices.

The Bank recognizes ESG as transversal, cross-cutting risks rather than stand-alone risks and considers them as drivers of existing types of financial and non-financial risks. Moreover, for the Non-Financial Risks (Operational risk and Strategic risk), ESG risks are treated as distinct Risk Themes as per the table below.

The main objectives of the NBG Risk Taxonomy Framework are to improve:

- Risk identification by providing a benchmark that can be used as a prompt in determining the particular risks faced by the organization;
- Risk assessment by facilitating comparison and aggregation of related data and providing a basis for validation;
- Risk monitoring by providing a common frame of reference that enables meaningful analysis and oversight of the outputs generated by any risk management tool;
- Risk reporting by providing a consistent way of describing risks enabling comparison across different business entities, business lines and geographic regions.

NBG’s Risk Taxonomy comprises of Risk Types which support a multi-level tree categorization in which NBG’s risks are classified and of Risk Themes which are sub-categories of Non-Financial Risks, the inclusion of which in the NBG Risk Taxonomy Framework provides an additional dimension improving the overall risk classification. Risk Themes are also used in order to accommodate additional regulatory compliance requirements and internal risk analysis and reporting needs.

Table 2: Risk Types

Risk Type Level 1	Risk Type Level 2
Credit Risk	Concentration Risk
	Residual Risk
	Underwriting Risk
Counterparty Credit Risk	Pre-settlement Risk
	Settlement Risk
	CVA Risk
	Wrong-way-Risk
Market Risk	Concentration Risk
	Interest rate Risk
	Equity Risk
	Foreign Exchange (FX) Risk
	Commodity Risk
	Vega Risk
	Market Liquidity Risk
	Credit Spread Risk
	Issuer Risk
	Concentration Risk
	Correlation Risk
	Underwriting Risk
Liquidity Risk	Funding Risk
	Asset Encumbrance Risk
	Concentration Risk
Interest rate risk in the banking book (IRRBB)	Gap Risk
	Basis Risk
	Option Risk
	Credit spread risk from non-trading book activities (“CSRBB”)
Real Estate Risk	
Pension Risk	
Country Risk	Sovereign Risk
	Transfer Risk
	Convertibility Risk
Strategic/Business Model Risk	Strategic Positioning Risk
	Strategy Execution Risk
Securitization Risk	
Operational risk	Internal Fraud
	External Fraud
	Employment Practices and Workplace Safety
	Clients, products and business practice
	Damage to Physical Assets
	Business disruption and systems failure
	Execution, delivery and process management



## RISK MANAGEMENT FRAMEWORK

## Risk Themes

- Legal Risk
- Compliance Risk
- Financial Crime Risk
- Conduct Risk
- Model Risk
- ICT Risk
- ICT Failure
- Cyber-attack (internal & external)
- Data Quality Risk
- Vendor/3rd Party Risk
- Outsourcing Risk
- Environmental Risk
- Social Risk
- Business Continuity Risk
- Project Risk
- Human Resources Risk
- Reputational Risk

In 2021 the Bank continued to drive the improvement of its OR management through a range of initiatives. Among these, the most significant are:

- The initiation of the Enterprise Risk Management Project which is part of the Bank's Transformation Plan. The two major initiatives were the **development of the NBG Risk Taxonomy Framework**, as well as the enhancement of the Taxonomy of Risks that the Bank is exposed to (**Risk Types and Risk Themes, See Table XX**), focusing mainly in the Non-Financial Risks (Operational and Strategic).
- The development of a **new Key Risk Indicators ("KRIs") Dashboard for NBG**. KRIs, that serve as metrics used to provide an early signal of increasing operational risk exposure, are collected and reported on a dashboard that highlights the outcome of the KRIs monitoring and their trend. Explicit reasoning of any data breaches, and actions necessary to mitigate the identified risks, are also recorded, monitored and reported.
- The implementation of the **GRC Platform (Operational Risk Management Module)**. Group Operational Risk Team prepared the designated requirements for all Operational Risk Programs, organized the Solution Design workshops and the relevant configuration streams, set up the data import processes, completed the User Acceptance Testing ("UAT") & signed off the UAT. GRC platform is fully operational since Q1 22.

Other projects which were completed in 2021 and are related to the enhancement of management of Operational Risk are the following:

- **The Risk & Control Self Assessment exercise**, which emphasises in the systematic identification and efficient mitigation of potential operational risk exposures, was completed throughout all Bank's Business Units and Group's Subsidiaries, based on an updated Operational Risk Management methodology developed by GORMD.
- Aiming at the identification and measurement of potential future, significant operational risk exposures, the Bank's Executive and Senior Management conducted for a third consecutive year, an **evaluation of the Group's main risks (Top Operational Risks)** based on the Scenario Analysis Methodology.

- The Bank, acknowledging the importance of risks stemming from ESG factors and in line with the regulatory Guidelines, proceeded with the incorporation of climate-related, environmental, social and governance risks in the wider risk management framework. **The alignment of the Operational Risk Taxonomy and all other Operational Risk Programs with the inclusion of ESG related references** was also completed based on the requirements set by the competent authorities.
- In order to assess the potential impact of failed or inadequate services related to the outsourcing arrangements of the Bank, GORMD developed an **Outsourcing Risk Assessment Methodology**.
- Finally, and in order to establish and develop a number of Risk Culture initiatives, Group Operational Risk applied an extensive **Operational Risk training program** that was provided throughout the Group. It additionally launched Operational Risk Forums within Greece as well as for international subsidiaries and it developed an Operational Risk Portal, serving as a centralized access point for all relevant Operational Risk material.

#### New Definition of Default ("DoD")

In September 2016, the EBA published the Final Guidelines for the new definition of default with the intention of harmonizing its application among European Financial institutions and improving consistency in the way these institutions estimate regulatory requirements to their capital positions. The Guidelines which provide detailed clarifications and cover key aspects are effective from January 2021.

The three main pillars for the identification of the new DoD are:

#### New Days Past Due counting

The DPD start to count when both relative and absolute materiality thresholds are breached.

#### New Default 90+

A delinquency default event shall be deemed to have occurred when both materiality limits are exceeded for more than 90 consecutive days, while the exit criterion is a 3-month probation period for the non-forborne exposures

#### Unlikelihood to Pay Criteria

- Default definition is fully aligned with the NPE criteria;
- Exposures in non-accrued status are directly transferred to a Default/NPE status;
- Assessment of the loss of a sale of a credit financial obligation; and
- Avoidance of Restructuring Solutions with low impact in Net Present Value (NPV).

During 2021, the Bank completed some extra tasks required for the smooth application of the new definition of default and more specifically, it achieved:

- The automation of the default calculation process, according to the new default definition rules, in its core systems on a monthly basis and specifically for days past due ("DPD") counting on a daily basis;
- The communication to all Business Units of the main Pillars, methodology and rules through a dedicated training;
- The update of internal reports to business units of the new rules and the DPD counting.

## RISK MANAGEMENT FRAMEWORK

Upon the application of the new DoD and throughout 2021, there was no material impact to the NPE portfolio reported on the Bank's figures.

#### Significant Risk Transfer to third parties (NPE securitization)

NBG in the context of Project "Frontier" NPE securitization (see chapter [11.Securitization](#)), in November 2021, notified ECB, by seeking recognition of Significant Risk Transfer ("SRT") to third parties in accordance with Art. 244(2) of the CRR. Based on the information reported in the notification, ECB concluded that the conditions of Art. 244(2) of the CRR are met, conditioned to the completion of sale of subordinated notes to third parties and the existence of a guarantee from HAPS for the 100% of the nominal value of the retained Senior Note. For the ongoing monitoring of SRT, the Bank will provide reports and ad-hoc templates as per the requests of the supervisor.

The Bank has performed all required implementations and User Acceptance Testing ("UAT"), therefore, relevant RWA calculations and population of Common Reporting Framework ("COREP") regulatory templates for the securitization reporting were in place from Q4 2021 regulatory reporting and onwards. Moreover, for the interval that the Bank acted as transitional servicer, additional implementation has been performed to calculate credit risk data for the relevant reports used for monitoring purposes such as European Securities and Markets Authority ("ESMA") reporting and cash manager reporting.

#### Pricing and Credit Risk Models

The Bank has in place a well-defined risk-adjusted pricing framework that is based on fundamental pricing principles and is governed by relevant policies, robust methodologies and tools.

Following the incorporation of specific IFRS 9 elements into the pricing models (i.e. PDs and CCFs) and capturing this way the impact of IFRS 9 Framework of Expected Credit Loss ("ECL"), the Bank, during 2021, commenced the revision of its Corporate & Retail pricing models by incorporating the newly established NBG's Funding Cost Curve (FCC). In addition, the Bank is in the process of further optimizing the pricing methodology and procedure, by:

- utilizing updated and granular estimates for operating cost, as well as
- investigating the LGD harmonization between pricing process, IFRS 9 ECL and credit granting process.

Furthermore, the Bank in a continuous effort to improve its efficiency and the quality of the services provided, is moving to a more advanced credit risk models suite for the retail households' portfolios.

In that context, it was found necessary to upgrade and optimize the existing credit risk models that will allow the Bank to cope with a constantly evolving technological and business environment and better capture the underlying risk. During 2020, the Bank developed new Customer Level Behavior scorecards for the retail households' clientele, which were implemented in the Bank's IT systems during 2021. In parallel, origination scorecards re-development project was initiated covering applications for all retail products. The outcome of this modeling process was three new models for unsecured lending applications and a new model for mortgage. All four models are expected to be implemented in the Bank's origination systems during the first half of 2022.

Leveraging on the above, the Bank is planning to implement portfolio management strategies and solutions that will allow the customer offers' optimization i.e., balancing profit and loss and offering products to the right clientele and at the right levels to

secure credit risk and profitability targets are met. Accordingly, the development of the new restructure model suite will be the basis for the optimization of the restructuring process and the relative solutions offering.

A project of development of a new suite of models for the Small Business portfolio was initiated during 2021. The new models will cover application and transactional data (current accounts, cheques etc.) and leveraging on the existing behavioral models will provide a combined score covering the overall customers' relationship with the Bank. The development process for these innovative models is planned to be completed within first half of 2022.

#### Migration to CreditLens - Credit Underwriting Platform

On February 2021, NBG migrated to Moody's CreditLens which replaced Moody's Risk Analyst platform that was used for the Corporate portfolio rating assessment. CreditLens is a modern tool which is used to evaluate Corporate clients by analyzing their financial information.

The new platform maximizes the effectiveness of the credit decision framework and aims to help the Bank make better commercial lending decisions, with increased speed and efficiency.

Installing Moody's CreditLens into the Bank's core systems was a challenging and demanding procedure due to time restrictions, database complexities and interconnections with other existing processes and systems; however, it was delivered on time without any disruptions to the credit process.

#### New Corporate Rating Model

During 2021, the New Corporate Rating Model ("CRM") development was finalized and approved by the competent authorities. New CRM is an optimized version of the current Corporate Rating Model, with more recent, representative data which is also enhanced with Early Warning System capabilities (i.e., integration of customer behavioral score in the evaluation process). The optimization project was very demanding affecting several significant processes of the Bank. The model development procedure covered all model aspects and resulted in a more balanced, stable and optimized model. New CRM has been thoroughly tested for several snapshots and is expected to capture all recent economic changes.

#### IFRS 9 Models Review in 2021

##### ❖ IFRS 9 Corporate LGD

In 2021, NBG finalized and launched a new Corporate LGD model which is utilized for IFRS 9 purposes from 2Q.21 onwards. The new model is considered as a major development in the Bank because, in contrast to the previous methodology used, it has the ability to produce obligor specific risk sensitive estimates. The model considers three basic model components that lead to the implementation of conceptually sound estimates.

##### ❖ IFRS 9 Mortgage / Consumer Term Loans PD

In early 2021, the Bank finalized and launched the re-fitted / re-optimized Mortgage and Consumer Term Loans PD models which are utilized for IFRS 9 purposes from 4Q.20 onwards. These new models incorporate the new Definition of Default and handle various issues concerning the initial model versions.

##### ❖ IFRS 9 Mortgage LGD

In early 2021, the Bank finalized and launched the re-calibrated / re-optimized Mortgage LGD model which is utilized for IFRS 9 purposes from 4Q.20 onwards. This new model version incorporates the new

## RISK MANAGEMENT FRAMEWORK

Definition of Default, having the various model components (transition matrixes and recovery rates) re-calibrated appropriately.

### IFRS 9 Models Review in 2022

In the context of IFRS 9 Models Review project, 5 new models will move into production. In more specific, Consumer Term Loans LGD model is in re-development phase, SME Retail PD and SME Retail LGD model are in implementation phase while Corporate and SME Retail EAD model development has been finalized. The deliverables of the project will help the Bank achieve high quality and sound implementation of IFRS 9 principles that meet regulatory expectations.

### ❖ Update of Model Development Policy

In 2022, the Bank will finalize the update of the Model Development Policy ("Policy") which will be submitted for approval to the competent committees. The purpose of the Policy is to set out a coherent framework of principles and standards governing the development, documentation and monitoring of credit risk models, providing guidance for their quantitative validation. The Policy applies to all models used for credit risk measurement purposes, including financial reporting and credit impairment calculation, regulatory, credit decision making, as well as Internal Capital Adequacy and Stress Testing purposes. The Policy is in line with the requirements of the regulatory guidelines and market leading practices and ensures that credit risk models are "fit for purpose" taking into account their ability to generate accurate and consistent estimates for the measurement of credit risk on an on-going basis.

### ■ Risk Culture Program

Risk Culture is defined as an institution's norms, attitudes and behaviors related to risk awareness, risk taking and risk management, and the controls that shape decisions on risk. Risk Culture influences the decisions of management and employees during the day-to-day activities and has an impact on the risks they assume.

The objective of NBG is to establish a sound and consistent Risk Culture across all units that is appropriate for the scale, complexity, and nature of the Bank's business, in line with regulatory / supervisory requirements and in accordance with best business practices, based on solid values which are articulated by the Bank's Board of Directors and Group's Senior Management.

Group Risk Management Function, as part of the Risk Culture Program, established the Risk Culture Framework (RCF), with the objective to define and document the principles, processes and methodologies that pertain to the identification, measurement, monitoring and reporting of Risk Culture in NBG. The RCF is a key element for the establishment of a sound Risk Culture within the Group. It constitutes an essential tool for the BoD and Senior Management to ensure that the Risk Culture is monitored and measured consistently over time and risk awareness enhancement actions are taken when necessary, while at the same time meets the Supervisory Authorities' expectations on efficient risk governance, based on common perception of risk culture-related issues.

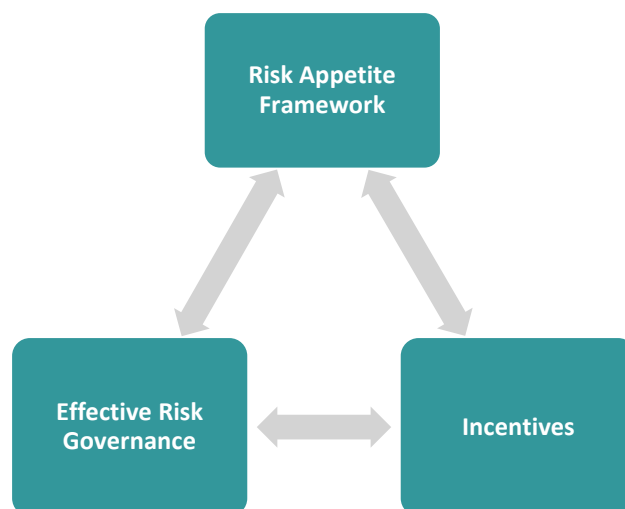


Figure 3: Elements of Risk Culture Program

NBG has in place an effective RCF that:

- Is aligned with the core Human Resources values;
- Is formed by both top-down Board and Senior Management guidance and leadership and bottom-up involvement of management and other stakeholders, and is understood and applied across all levels of the Bank;
- Incorporates Risk Culture Principles that are easy to communicate and assimilate;
- Describes the process for the definition and implementation of personnel's risk awareness and corresponding behaviours' enhancement initiatives;
- Incorporates a forward looking view about the Group's Risk Culture profile expectations through setting the corresponding Risk Culture Principles;
- Establishes the governance arrangements for its update and monitoring.

## RISK MANAGEMENT FRAMEWORK

## Risk Culture Framework: Foundational Elements and Assessment Indicators



Figure 4: Risk Culture assessment indicators

In 2021, the Risk Culture program:

- Implemented the annual plan of the Risk Awareness Enhancement activities, which consisted of:
  - Bank wide trainings;
  - Workshops with targeted groups to provide support on newly established roles, responsibilities and processes;
  - Launching and planning of new Portals (intranet sites) for fostering effective communication and improving access to available policies and processes;
  - Communication campaigns and forums for ensuring consistent awareness across all personnel.
- Continued the implementation of the initiative to harmonize NBG Group Subsidiaries' approach with regards to setting, measuring, monitoring, reporting and enhancing Risk Culture;
- Identified, in cooperation with Risk Culture Stakeholders, the plan for the Risk Awareness enhancement initiatives for 2022.

## 2022 Risk Awareness enhancement initiatives overview

Given NBG's objective to promote risk and control awareness, seeking that all employees are fully aware of the risks arising in the course of their work and have adequate skills for their management, including the establishment of adequate and efficient controls, the Risk Culture Stakeholders develop and implement, on an annual basis, Risk Awareness Enhancement Activities around the following:

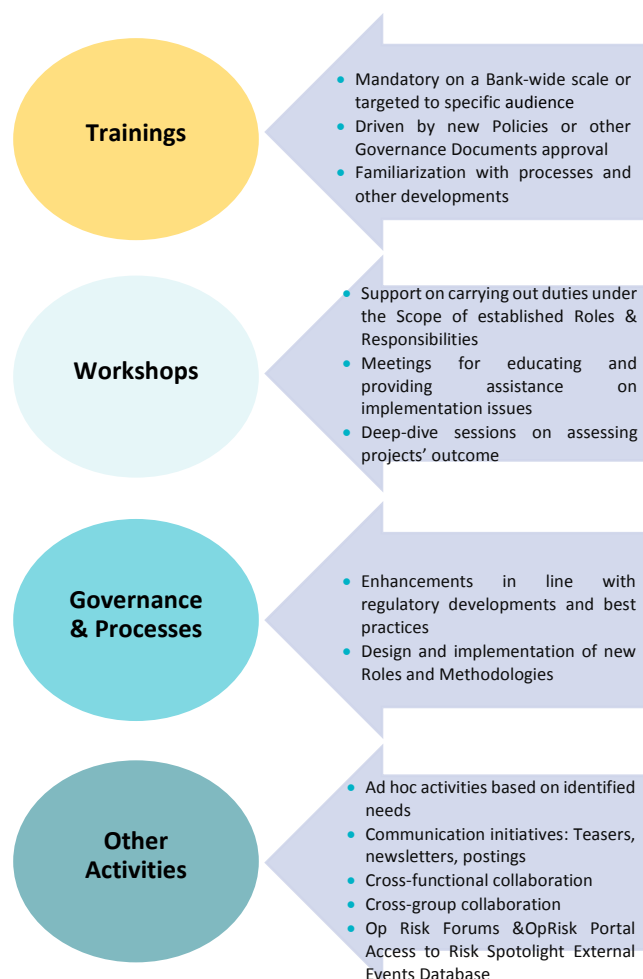


Figure 5: 2022 Risk awareness enhancement initiatives

## Market Risk

As part of the Bank's continuous effort to enhance the robustness and completeness of its Market Risk and Counterparty Credit Risk management processes and in order to comply with the revised regulatory framework (Basel III), the GFLRMD proceeded with the following actions within 2021:

- The optimization of the new Market Risk capital requirements framework (standardized approach for Fundamental Review of the Trading Book "SA-FRTB"), which came into effect for reporting purposes in Q3 2021.
- The implementation of the new standardised approach for Counterparty Credit Risk ("SA-CCR"), which came into force for capital calculations in Q2 2021.
- The implementation of the Basic Approach for the calculation of the regulatory Credit Valuation Adjustment ("BA-CVA") capital requirements and revision of the current process, in alignment with SA-CCR.

Moreover, the GFLRMD will explore the impact of the new, more complex regulatory Internal Model Approach for Market Risk ("IMA-FRTB") under Basel III, on the Bank's regulatory capital.

Finally, the GFLRMD is in the process of revising the calculation of credit exposure for bilateral derivatives contracts with corporate clients.



## RISK MANAGEMENT FRAMEWORK

**Interest Rate Risk in the Banking Book**

Following the successful roll-out of the new IRRBB calculation engine in 2020, the IRRBB framework moved to a business-as-usual ("BAU") mode, improving and streamlining the relevant processes, including the development and UAT testing of new IRRBB IT infrastructure.

Furthermore, a number of new models for key product classes (e.g., TLTRO) were introduced in the IRRBB engine.

Finally, further development of NBG's IRRBB calculation engine is scheduled for this year, reflecting the publication of new regulatory IRRBB and Credit Spread Risk in the Banking Book ("CSRBB") Guidelines, currently in consultation.

**Liquidity Risk**

In line with the Bank's aim to continuously improve its Liquidity Management Framework, the Bank completed in 2021 the following exercises / enhancements:

- The calculation and reporting of NSFR has been amended, to incorporate the CRR II provisions that have been effective from Q2 2021;
- The current database of the Liquidity Platform has been complemented with a large set of historical data, covering the entire period of liquidity crises, since 2010. This initiative has further enhanced historical analysis capabilities, which are expected to support liquidity stress testing exercises;
- In line with SRB requirements for "Liquidity and Funding in Resolution", the Bank performed a Resolution-related stress test exercise that was submitted to the Regulator. With this project, the Bank assessed its capabilities to identify, measure and report its liquidity position in resolution;

Moreover, several enhancements and new initiatives are planned to be implemented during 2022. More specifically:

- Deliver two more exercises to SRB for "Liquidity and Funding in Resolution" (part of the wider Resolution project initiated by SRB), focusing on collateral monetisation in Resolution;
- Perform the annual ILAAP, enhanced with analysis from the new historical database.

**Strategic /Business Model Risk**

In the context of the review of the NBG Risk Taxonomy (see above), the current or prospective risks of the Group's Business Model on the viability and sustainability, i.e. the Business Model becoming obsolete or irrelevant and/or losing the ability to generate results aligned with the Group's strategic objectives and stakeholders' expectations, were redefined.

These risks are associated with vulnerabilities in Strategic Positioning or Strategy Execution (delivery) as a result of external or endogenous risk factors and possible inability to effectively react thereon.

The impact of Strategic risks is demonstrated through:

- failure to deliver the expected results, i.e., material deviations from a defined Business plan in terms of Profitability, Capital and/or Brand perception; and
- long term deterioration of competitiveness, i.e., worsening relative position compared to peers benchmarks in strategically important areas.

More specifically:

**Strategic Positioning risk:** the prospective risk in the Group's long-term competitive position, i.e. the Business model becoming obsolete or irrelevant. The Strategic positioning risk impact is demonstrated through relative underperformance compared to

peers benchmarks in strategically important areas. The risk sources are potential vulnerabilities in the strategic design, lack of diversification in revenue generation, external disruptive factors (such as new market entrants) and inability to effectively/timely adapt the Business model components to the market dynamics (adaptability in terms of value proposition, customer segments, servicing channels, partnerships, internal resources utilization and efficiency).

**Strategy Execution risk:** The current or prospective risk to profitability and/or Franchise (Brand) perception, due to failed or inadequate delivery of a defined Business plan Execution risks are arising from changes in the external business environment (competition, regulation, market conditions) or from endogenous failure to successfully conclude strategic initiatives and projects in line with the Business plan, and the inability to react effectively thereon.

**ESG Risk Governance**

Climate change and the response to it by the public sector and society in general have led to an increasing relevance of environmental, social and governance (ESG) factors for financial markets. It is, therefore, essential that financial institutions are able to measure and monitor the ESG risks in order to deal with transition and physical risks.

The Bank, acknowledging the importance and potential impact of the risks stemming from climate-related and environmental factors, and aligning with the respective regulatory guidelines:

- has incorporated them in the Risk Taxonomy, recognizing them as transversal, cross-cutting risks rather than standalone risks and considering them as drivers of existing types of financial and non-financial risks (Risk Themes); and
- is in the process of conducting the materiality assessment of such risks in the course of the 2022 Internal Capital and Liquidity Assessment Processes ("ICAAP" and "ILAAP").

Moreover, the Bank has initiated multiple actions for their incorporation in the overall risk management framework, and is committed to monitoring, assessing and managing these particular risks going forward.

**❖ Sustainable NBG Initiative**

During 2021, NBG launched a holistic ESG Program, ensuring compliance with evolving regulatory framework and implementation of ESG best practices across the organization. Key initiatives relevant to the implementation of NBG's strategy with respect to ESG have been incorporated into NBG's Transformation Program, to ensure high level of focus and discipline in execution in this critical area.

**❖ NBG Group Sustainability Policy**

NBG has elaborated and adopted in 2021 the [NBG Group Sustainability Policy](#).

The Policy is in harmony with the requirements of the applicable legislative and regulatory framework and international practices included in international conventions and initiatives, which concern actions aiming at sustainable development, corporate social responsibility and business ethics. Specifically, the Policy is based among others on the applicable legislation on sustainable development, sustainable and responsible financing / investment, management of environmental, social and governance risks, environmental, sustainable governance and transparency.

## RISK MANAGEMENT FRAMEWORK

At National Bank of Greece, we recognize that our operation has direct and indirect economic, social and environmental impacts on our stakeholders, as well as wider impacts on the economy, society and the natural environment.

We recognize the importance of our role as a financial institution in the transition to a sustainable economy, and the importance of complying with the relevant regulatory requirements. We enhance access to finance, facilitating thus the transition to a zero-carbon economy, and we develop new products and services that meet the needs of our customers to create long-term value, economic and social benefits, and manage their environmental risks and impact.

The relevant commitments of the Bank address among others:

Environmental Impacts of funding - Reduction of environmental impacts (including climate, water, air, land, biodiversity, use of resources) that arise from the financing of our customers' activities and the allocation of products and services of the Bank to its customers. To achieve it:

- Emphasis is placed on promoting sustainable finance and investment, "green" banking, in response to growing interest of customers in services and products that contribute to environmental protection and sustainable development, but also reduce the impact of climate change;
- the Bank introduces the assessment of environmental (including climate change), social and governance risks in lending procedures.

#### ■ NBG ESG Strategy

We have defined ESG strategic themes across the pillars of Environment, Society and Governance, that are aligned with our purpose and values to create a more prosperous and sustainable future together with our customers, people, and shareholders. At the same time, our ESG strategic themes complement our business strategy & transformation, and our vision of becoming the undisputed Greek Bank of First Choice. Our ESG strategic themes are listed below (1-9) in alignment with our values across the ESG pillars:

##### ❖ Environment (E)

In alignment with our core values of Growth and Responsiveness we are building on NBG's leading position in energy to address climate impact & support transition to a sustainable economy through initiatives where we:

1. Lead the market in sustainable energy financing,
2. Accelerate transition to a sustainable economy
3. Role-model environmentally responsible practices.

##### ❖ Society (S)

In alignment with our core value of Human Centricity we are continuing NBG's long-standing tradition of positive contribution to communities, culture, inclusiveness and well-being through initiatives where we:

4. Champion diversity & inclusion
5. Enable public health & well-being
6. Promote Greek heritage, culture & creativity
7. Foster entrepreneurship & innovation
8. Support prosperity through learning & digital literacy.

##### ❖ Governance (G)

In alignment with our core value of Trust we are focusing on maintaining best-in-class transparency and accountability practices through initiatives where we:

9. Adhere to the highest governance standards

#### ■ ESG Governance, roles and responsibilities

With regard to environmental and social issues, a dedicated Group Corporate Social Responsibility & Sustainability Division has been established within the Bank, operating under the Group Chief Compliance and Corporate Governance Officer, which is competent for corporate social responsibility, as well as sustainability and climate change related issues, activities and projects of the Bank. Executives of said Division refer to the Group Chief Compliance and Corporate Governance Officer, who reports directly to the Board's Compliance, Ethics and Culture Committee as the competent Committee for overseeing Bank's Corporate Social Responsibility policies, community investment, environmental, climate change, social and other similar projects and activities of the Bank.

According to the provisions of our Corporate Governance Code in setting the strategy, the Board should focus on sustainability and considers among others climate-related and environmental risks when developing the overall business strategy, objectives and risk management framework and exercises effective oversight of climate-related and environmental risks.

Within this context, the Board ensures that material environmental and social considerations are integrated into the Bank's strategy, business model and risk management system and addressed in its public disclosures.

In particular, as far as sustainable development is concerned, the Board reviews the Group Sustainable Development Policy that the Bank has in place, recognizing that its activity has, both directly and indirectly, social, financial and environmental impacts on interested parties, including investors and shareholders, customers, employees, partners and suppliers, the business community, state and regulators and society, as well as wider impact on the economy, society and the natural environment.

Apart from individual Committee responsibilities relating to ESG as per the Committees' Charters, the Board is assisted by the Compliance, Ethics and Culture Committee through which the holistic oversight of ESG is effectively achieved. In particular, the Committee among others assists the Board in enhancing responsible company and management behavior towards sustainable growth and long-term value creation, including considering environmental, climate change and social criteria, and corporate social responsibility. To this end, the Committee is competent among others to oversee policies/issues/reports on corporate social responsibility, sustainability, community investment, environmental, climate change sustainability criteria, social and other similar projects and activities of the Bank and to oversee social & environmental risks, as well as financial risks that can derive from ethics and culture practices. Relevant strategic initiatives relating to the Bank's Transformation Program are overseen both by the Compliance, Ethics and Culture Committee, as well as by the Strategy and Transformation Committee.

In order to be able to effectively discharge its duties, the Committee members are selected on the basis of their competency and experience in compliance, ethics and culture issues, while the Chair shall have deep knowledge in the Ethics and Compliance area and good understanding of Social and Environmental issues.

##### ❖ Establishment of Innovation and Sustainability Committee

The Innovation and Sustainability Committee ("ISC") was established by Board decision (meeting no. 1718/24.2.2022), following the elevation of the IT & Innovation Advisory Council (established by the Board in January 2021) to a Board Committee and the enhancement of its duties. Its main responsibilities are:

## RISK MANAGEMENT FRAMEWORK

- Support the Board of Directors in ensuring there is continuous monitoring and tracking of important developments and long-term trends related to Innovation, Sustainability, Information Technology, ESG and Banking.
- Act as an out-of-the-box thinker, explorer and incubator of innovative ideas and practices and advise the Board/its Committees as may be deemed appropriate.

#### ❖ Establishment of ESG Management Committee

In the context of its strategic approach and commitment to continuously promote sustainable development and responsible entrepreneurship, and aiming at effective management of ESG, sustainability and sustainable financing issues, in line with regulatory requirements and taking into account best practices included in international treaties and initiatives, the Bank established the ESG - Environmental, Social and Governance Management Committee to contribute to the governance of multiple aspects of NBG's ESG strategy and implementation. The committee convenes once a month and in case of urgency, the convergence of the committee may be requested as a matter of urgency by any of its members.

#### ■ Sustainable Lending Criteria Framework

In alignment with the broader sustainability strategy of NBG, the Sustainable Lending Criteria Framework aims to establish a consistent and comprehensive list of sustainable lending criteria in order to identify the Bank's corporate lending towards economic activities that contribute to the transition towards more sustainable business practices.

The developed Framework outlines the classification logic of an activity as sustainable, and builds upon two widely accepted and recognized standards:

- The EU Taxonomy Regulation (EU) 2020/852
- The Sustainable Linked Loan Principles (SLLP)

The Sustainable Lending Criteria Framework classifies sustainable activities by leveraging on the list of climate change mitigation technical screening criteria as listed in the EU Taxonomy Regulation.

The Bank intends to regularly review and amend and/or introduce additional criteria and/or activities to the existing Framework in order to fulfil forthcoming regulatory requirements, as well as to align the Framework with other emerging leading practices.

#### ■ Green Banking

In addition, the Bank continued launching in 2021 the following green banking products, which contribute to environmental protection:

- Loans for participation in the "Energy-Saving at Home II" (A & B Cycle, Energy-Saving – Be Autonomous) program co-funded by HDB (ex. ETEAN S.A.), on favorable terms for energy improvements in homes. In 2021, 4,181 of such loan applications were approved of amount €24 million, while 2,912 loans were disbursed corresponding to a total of €14 million, which concern the total financing and not only the Bank's funds.
- "Green Loan": a loan granted under favourable terms and conditions for financing the purchase and installation of energy-saving equipment and new hybrid technology cars, as well as new electric vehicles.
- "Estia Green Home" loan for the purchase, repair or construction of energy upgraded homes.
- National Bank participated in the program "Astypalea: Smart & Sustainable Island", offering the residents of Astypalea the

opportunity to finance the purchase of new electric vehicles on favorable terms, through a special Green Loan product.

- For yet another year the Bank contributed to the country's efforts to improve its environmental footprint by financing RES projects worth €569 million.

In collaboration with the European Investment Bank (EIB), NBG, in the context of strengthening financial support for investments that contribute to the achievement of climate action targets, as well as healthy businesses that support women entrepreneurship and strengthen the presence of women in leading posts, within 2021 continued the provision of the respective programs.

#### ❖ Green Bonds

In alignment with the broader sustainability strategy, NBG has established a Green Bond Framework to be able to issue Green Bonds and attract dedicated funding for this strategic part of the business. NBG Green Bond Framework is presented through the following core components, which are aligned with the Green Bond Principles by ICMA: i) Use of proceeds, ii) Process for project evaluation and selection, iii) Management of proceeds, iv) Reporting and v) External review.

An amount equivalent to the proceeds of Green Bond issuance(s) will be used to finance or refinance, in whole or in part, new or existing loans and/or investments to equipment, development, manufacturing, construction, operation, distribution and maintenance of Renewable Energy from onshore wind energy, solar thermal energy and small hydro projects (<20 MW).

In this context, NBG placed successfully the first Green Senior preferred Bank Bond on the Luxembourg Stock Exchange on 8th October 2020. The bond matures in six years and is callable in five years, with a coupon of 2.75% and a yield of 2.875% and the total volume of this issuance is €500mn. The transaction is the first issue of a high security bond by a Greek bank since 2015 and attracted the interest of a large part of the investor community, raising funds of circa €1.2 billion, with the participation of 80 institutional investors. The success of the undertaking, reflecting demand by a broad investor base and the intensively growing appetite of investors for green bonds, is tangible confirmation of the confidence that NBG enjoys throughout the markets and the general positive prospects for the Greek economy. This issuance attracted a diverse pool of investors and high-quality accounts, with approximately 30% of the allocations, placed by investors that are highly committed to responsible investing.

Within the first year of the issuance, 70% of the total net proceeds of €494mn (i.e., €347mn) have been allocated to 42 renewable energy projects across Greece, in total. The generation source of those projects are Onshore wind energy, Solar thermal energy, and Small hydro projects (<20 MW) which contribute to the UN's SDGs "7" Affordable and clean energy, "9" Industry, Innovation, and Infrastructure and "13" Climate Action. In particular, 81% of the total proceeds of €347mn, have been allocated to wind, 13% to solar and 6% to hydro projects. The remaining 30% (i.e., €147mn) of the proceeds will be exclusively allocated to new energy projects, as per NBG's commitment for a 50:50 split between refinancing and new financing of projects.

The dedicated NBG's Green Bond Framework Committee ensures, the proper process implementation of evaluating, validating and monitoring the eligible assets, by reviewing and approving their eligibility, throughout the duration of the Green Bond. Furthermore, it has to be mentioned that the Green Bond Framework Committee has a direct reporting line to the NBG's ESG Committee.

## RISK MANAGEMENT FRAMEWORK

The following table gives an overview of how bond proceeds have been allocated to RES and the associated GHG reduction impact as of 15.09.2021.

Table 3: Green Bonds

Use of proceeds category	Project	Allocated amount (in €mn)	No. of projects	Installed Renewable energy capacity (MW)	Expected or actual annual Renewable energy generation (MWh)	Annual GHG emissions reduced or avoided (tCO <sub>2</sub> )
Renewable energy	Onshore Wind	280	18	405	950,311	939,858
	Solar Thermal energy	45	19	106	165,630	163,808
	Small Hydro	21	5	14	39,989	39,549
TOTAL		346	42	525	1,155,930	1,143,215

Climate-related Green Bond Ratio: 52.6%.

#### ❖ Eligibility to EU Taxonomy

The Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021, supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council specifies the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU, concerning environmentally sustainable economic activities, and also specifies the methodology to comply with that disclosure obligation.

More specifically, under Article 10, para 3, from 1 January 2022 until 31 December 2023, financial undertakings shall disclose:

- the proportion in their total assets of the exposures to Taxonomy non-eligible and Taxonomy-eligible economic activities;
- the proportion in their total assets of the exposures referred to in Article 7, paragraphs 1 and 2;
- the proportion in their total assets of the exposures referred to in Article 7(3);
- the qualitative information referred to in Annex XI.

Credit institutions shall also disclose the proportion of their trading portfolio and on demand inter-bank loans in their total assets.

In this context, the respective requirement for the Bank as of 31 December 2021, is presented below (*amounts in € million*):

Table 4: Article 10, par 3 requirements

Article 10 (para 3) (a, b, c)	Taxonomy eligible*	% coverage over Total Assets	Taxonomy non eligible**	% over Total Assets
(a) Total Assets	8,509	10.8%	70,011	89.2%
of which trading portfolio			271	0.3%
of which on demand inter-bank loans			187	0.2%
(b) Total exposure to central governments, central banks and supranational issuers			28,914	36.8%
Total exposure to derivatives			4,331	5.5%
(c) Total exposure to non-NFRD <sup>1</sup> companies			6,535	8.3%

Annex XI disclosures for qualitative information in support of the quantitative indicators including the scope of assets and activities covered by the KPIs, information on data sources and limitation

- (d) The taxonomy eligibility has been assessed on the following assets and activities:

- financial assets at amortised cost;
- financial assets at fair value through other comprehensive income;
- investments in subsidiaries, joint ventures and associates;
- financial assets designated at fair value through profit or loss and non-trading financial assets mandatorily at fair value through profit or loss;
- real estate collaterals obtained by credit institutions by taking possession in exchange for the cancellation of debts.

The following assets excluded from taxonomy eligibility assessment:

- financial assets held for trading;
- on-demand interbank loans;
- exposures to undertakings that are not obliged to publish non-financial information pursuant to Article 19a or 29a of Directive 2013/34/EU.

The Bank's eligible exposures mainly include mortgages and assets acquired through foreclosure proceedings amounted to €8.4 billion (mandatory disclosures), as well as, potential eligible loans and securities amounted to €0.1 billion issued by Greek companies in the fields of energy, construction and manufacturing for which official information on the eligibility of the activities of our corporate clients was not available when preparing this Annual Report. As a general approach, the taxonomy eligibility of the exposures assessed by the use of Statistical classification of economic activities in the European Community ("NACE codes") of the corporations, for which data extracted directly by the Bank's systems. Other available data also used for the activity of the corporations in order to determine the taxonomy eligibility.

Total exposure to non-NFRD companies mainly includes all investments in subsidiaries and associates, Investment securities exposures to unlisted companies, loans to SME companies and public sector corporations and exposures to non-large companies with average staff less than 500 employees.



**Notes:**

*\*"Taxonomy-eligible economic activity" means an economic activity that is described in the delegated acts adopted pursuant to Article 10(3), Article 11(3), Article 12(2), Article 13(2), Article 14(2), and Article 15(2), of Regulation (EU) 2020/852, irrespective of whether that economic activity meets any or all of the technical screening criteria laid down in those delegated acts;*

*\*\*"Taxonomy-non-eligible economic activity" means any economic activity that is not described in the delegated acts adopted pursuant to Article 10(3), Article 11(3), Article 12(2), Article 13(2), Article 14(2) and Article 15(2), of Regulation (EU) 2020/852.*

<sup>1</sup> For companies not obliged to publish non-financial information pursuant to Article 19a or 29a of the Non-Financial Reporting Directive ("NFRD") of Directive 2013/34/EU.

Per Reporting Taxonomy eligibility and Taxonomy alignment the Bank, prior to January 2024, is required to report on Taxonomy eligibility only. From January 2024 onward, the Bank should report both Taxonomy eligibility and alignment.

### ESG Risks Disclosures, ICAAP & RAF

The Bank is committed to fulfill all disclosure requirements set out by the binding standards on Pillar III disclosures published by EBA on January 24, 2022. NBG has thoroughly studied the disclosure templates and associated instructions and made synergies with all involved Units to properly and effectively seek for all needed additional information from its counterparties and incorporate it in its IT systems aiming to a fully automated internal procedure and controls. Furthermore, as recommended by the EBA for institutions to incorporate ESG risks-related considerations in strategies and objectives, governance structures, and to manage these risks as drivers of financial risks in their risk appetite and internal capital allocation process and calls for a phase-in approach NBG has embedded the relevant points in its ICAAP and Risk Appetite Framework whereas it also assesses ESG Risk through idiosyncratic sensitivity analysis in ICAAP Stress Testing exercise.

## 4.2 Credit Risk

### 4.2.1 Credit granting processes and controls

Credit risk is the risk of financial loss relating to the failure of a borrower to honor its contractual obligations. It arises in lending activities as well as in various other activities where the Group is exposed to the risk of counterparty default, such as its trading, capital markets and settlement activities. Credit risk is the largest single risk the Group faces. The Credit risk processes are conducted separately by the Bank and each of its subsidiaries. The credit risk procedures established by the subsidiaries are coordinated by the GRCAD.

The Group's credit granting processes include:

- Credit-granting criteria based on the particular target market, the borrower or counterparty, as well as the purpose and structure of the credit and its source of repayment;
- Credit limits that aggregate in comparable and meaningful manner different types of exposures at various levels;
- Clearly established procedures for approving new credits as well as the amendment, renewal and re-financing of existing credits.

The Group maintains on-going credit administration, measurement and monitoring processes, including in particular:

- Documented credit risk policies;
- Internal risk rating systems;
- Information systems and analytical techniques that enable measurement of credit risk inherent in all relevant activities.

The Group's controls implemented for the above processes include:

- Proper management of the credit-granting functions;
- Periodical and timely remedial actions on deteriorating credits;
- Independent, periodic audit of the credit risk management processes by Group Internal Audit Division, covering in particular the credit risk systems/models employed by the Group.

Additionally, the GRCAD measures and monitors credit risk on an on-going basis through documented credit risk policies, internal rating systems, as well as information systems and analytical techniques that enable measurement of credit risk inherent in all relevant activities. Thus, the Group achieves active credit risk management through:

- The application of appropriate limits for exposures to a particular single or group of obligors;
- The use of credit risk mitigation techniques;
- The estimation of risk adjusted pricing for most products and services;
- A formalized validation process, encompassing all risk rating models, conducted by the Bank's independent MVU.

### 4.2.2 Credit Policy for Corporate Portfolios

The Credit Policies for the Corporate portfolios of the Bank and its Subsidiaries ("the Subsidiaries") present the fundamental policies for the identification, measurement, approval and monitoring of credit risk related to the Corporate Portfolio and ensure equal treatment for all obligors.

The Corporate Credit Policy of the Bank is approved by the Board of Directors (BoD) upon recommendation of the Board Risk Committee

(BRC) following proposal by the Group CRO to the BRC and the Executive Committee and is reviewed on an annual basis and revised whenever deemed necessary and in any case every two years.

The Credit Policy of each Subsidiary is approved by the competent local Boards / Committees, following a recommendation by the responsible Officers or Subsidiaries' Bodies, according to the decisions of the Bank and the provisions of the Credit Policies. Each proposal must bear the prior consent of the Group Chief Credit Officer (CCO) in cooperation with the Head of NBG's Group Credit Risk Control Division (GCRCD) for issues falling under their responsibility. The subsidiaries' Credit Policies are reviewed on an annual basis and revised whenever deemed necessary and in any case every two years.

### 4.2.3 Credit Policy for Retail Banking

The Credit Policy for the Retail Portfolio (Credit Policy) sets out the fundamental principles and the minimum rules and conditions for the control (identification, measurement, approval, monitoring and generation of management information) of the credit risk deriving from retail financing, both at Bank and Group level.

The Credit Policy is designed in such a manner as to be an integral part of the Risk Appetite Framework, meeting the requirements of the current legal and regulatory framework and in any case, ensures equal treatment for all counterparties.

Its main scope is to enhance, guide and regulate the effective and adequate management of credit risk, thus achieving a viable balance between risk and return.

All credit risk control procedures, always in compliance with the Credit Policy, are set out in the Procedures and Management Regulation Manuals of the relevant Retail Divisions. These procedures are subject to amendments, which facilitate the Bank's alignment with the business environment.

The Retail Regulations are made to serve three basic objectives:

- to set the framework for basic credit criteria, policies and procedures;
- to consolidate Retail Credit policies of the Group; and
- to establish a common approach for managing Retail Banking risks.

The Credit Policy is approved by the Board of Directors of the Bank (BoD) upon the recommendation of the Board Risk Committee (BRC), following proposal by the General Manager of Group Risk Management (Chief Risk Officer), to the Executive Committee and the BRC. Credit policy is reviewed on an annual basis and revised whenever deemed necessary and in any case at least every two years.

The Retail Credit Policy of each Subsidiary is approved and can be amended or revised by the competent local Boards/Committees, following a recommendation by the responsible Officers or Subsidiaries' Bodies, according to the decisions of the Bank and the provisions of the Credit Policies. Each proposal must bear the prior consent of the Group CCO, or the Head of NBG's Group Retail Credit Division in cooperation with the Head of NBG's Group Risk Control and Architecture Division for issues falling under their responsibility. The subsidiaries' Credit Policies are subject to periodical revision.

## RISK MANAGEMENT FRAMEWORK

The NBG Group Retail Banking Credit Division reports directly to the Group CCO. Its main task is to evaluate, design and approve the credit policy that governs the retail banking products, both locally and abroad. Furthermore, the Division closely monitors the consistent implementation of both credit policy provisions and credit granting procedures.

Through the implementation of the Credit Policy, the evaluation and estimation of credit risk, for new as well as for existing products, are effectively facilitated. The ongoing assessment of the credit facilities is considered as an integral part of the credit risk monitoring.

NBG's Senior Management is regularly informed on all aspects regarding the Credit Policy. Remedial action plans are set to resolve the issues, whenever necessary, within the risk appetite and strategic orientation of the Bank.

#### 4.2.4 Concentration Risk

The Bank manages the extension of credit, controls its exposure to credit risk and ensures its regulatory compliance based on an internal limits system. The GCRC is responsible for limits setting, limits monitoring and regulatory compliance.

The fundamental instruments for controlling Corporate Portfolio concentration are Obligor Limits reflecting the maximum permitted level of exposure for a specific Obligor given its Risk Rating, and sector limits that set the maximum allowed level of exposure for any specific industry of the economy; industries are classified in groups on the basis of NACE (General Industrial Classification of Economic Activities within the European Communities) codes. Sector limits constitute part of the Bank's Risk Appetite Framework and are revised at least annually. Excesses of the Industry Concentration Limits should be approved by the Board Risk Committee following a proposal of the General Manager of Group Risk Management (CRO). Any risk exposure in excess of the authorized internal Obligor Limits must be approved by a higher level Credit Approving Body, based on the Credit Approval Authorities as presented in the Corporate Credit Policy. Like Sector limits, Obligor Limits are subject to BRC approval on an annual basis.

Credit risk concentration arising from a large exposure to a counterparty or group of connected clients whose probability of default depends on common risk factors is monitored, through the Large Exposures and Large Debtors reporting framework.

Finally, within the ICAAP, the Bank has adopted a methodology to measure the risk arising from concentration to economic sectors (sectoral concentration) and to individual companies (name concentration). Additional capital requirements are calculated, if necessary, and Pillar 1 capital adequacy is adjusted to ultimately take into account such concentration risks.

### 4.3 Counterparty Credit Risk

Counterparty Credit Risk (CCR) stems from OTC derivatives and other interbank secured and unsecured funding transactions and is due to the potential failure of a counterparty to meet its contractual obligations.

More specifically, the framework for managing CCR that pertains to Financial Institutions (FIs) is established and implemented by the GFLRM Division. It consists of:

- Measuring the exposure per counterparty, on a daily basis;
- Establishing the respective limits per counterparty;

- Monitoring the exposure against the defined limits, on a daily basis.

The methodology for measuring exposure to a FI depends on the characteristics of the transaction. Specifically, unsecured interbank placements produce an exposure that is equal to the face amount of the transaction, whereas secured interbank transactions and OTC Derivatives have Pre-Settlement Risk, which is measured through each product's Credit Equivalent Factors (CEFs), as described in the Counterparty Credit Risk Framework.

For the efficient management of CCR, the Bank has established a framework of counterparty limits. These limits are based on the credit rating of the financial institutions as well as the product type. Credit ratings are provided by internationally recognized rating agencies, in particular Moody's and Standard & Poor's. According to the Bank's policy, if the agencies' evaluations diverge, the lower (worse) credit rating will be considered. The limit-framework is revised periodically, according to business needs and the prevailing conditions in the international and domestic financial markets.

Counterparty limits apply to all financial Instruments in which the Treasury Division is active in the interbank market. Subsequently, all limits are monitored by the GFLRM on a daily basis.

The Bank seeks to further mitigate CCR by standardizing the terms of the agreements with counterparties through ISDA and GMRA contracts that encompass all necessary netting and margining clauses. Credit Support Annexes (CSAs) have also been signed with almost all active FIs, so that net current exposures are managed through margin accounts, on a daily basis, by exchanging mainly cash or debt securities as collateral.

Moreover, the policy of the Bank is to avoid taking positions on derivative contracts where the values of the underlying assets are highly correlated with the credit quality of the counterparty, i.e. avoid wrong-way risk.

### 4.4 Market Risk

Market risk is the current or prospective risk to earnings and capital arising from adverse movements in interest rates, equity prices, commodity prices and exchange rates or their levels of volatility. The main contributor to market risk in the Group is the Bank. NBG seeks to identify, estimate, monitor and effectively manage market risk through a robust framework of principles, measurement processes and a valid set of limits that apply to all of the Bank's transactions. The most significant types of market risk are the following: interest rate risk, equity risk and foreign exchange risk.

- **Interest Rate Risk** is the risk related to the potential loss on the Group's portfolio due to adverse movements in interest rates. Interest rate risk mainly stems from the interest rate, over-the-counter (OTC) and exchange traded derivative transactions, as well as from the Bank's trading and the HTCS bond portfolios. More specifically, the Bank maintains a material derivatives portfolio of mainly vanilla interest rate products, which are mostly cleared in CCPs or managed through bilateral ISDA/CSA agreements. Their main function is to hedge the IR risk of the bonds classified in the HTCS and HTC portfolios or the exposure of other derivative products in the Trading Book. Additionally, the Bank retains a significant securities portfolio, mainly comprising of Greek and other EU periphery sovereign bonds, which are primarily held in the Baking Book and predominantly in the HTC portfolio. Finally, NBG holds moderate positions in Greek and international corporate bonds.

## RISK MANAGEMENT FRAMEWORK

Overall, NBG has moderate exposure to interest rate risk in the Trading Book, while it enters into vanilla IRS transactions in order to mitigate the interest rate risk of the bonds listed in the Banking Book.

- **Equity Risk** is the risk related to the potential loss due to adverse movements in the prices of stocks and equity indices. The Group holds a limited portfolio of stocks, the majority of which are traded on the Athens Exchange (the ATHEX) and retains positions in stock and equity index derivatives traded on the ATHEX, as well as, on international exchanges. The cash portfolio comprises of trading (i.e. short-term) and held to collect and sell (i.e. long-term) positions. The portfolio of equity derivatives is mainly used for the hedging of equity risk arising from the Group's cash position and equity-linked products offered to customers and to a lesser extent for proprietary trading.
- **Foreign Exchange Risk** is the risk arising from fluctuations of foreign exchange rates and/or their implied volatility and stems from the Group's Open Currency Position (OCP). The OCP primarily arises from foreign exchange spot and forward transactions. The OCP is distinguished between Trading and Structural. The Structural OCP contains all of the Bank's assets and liabilities in foreign currency (for example loans, deposits, etc.), along with the foreign exchange transactions performed by the Treasury Division. The Bank trades in all major currencies, holding mainly short-term positions for trading purposes and for servicing its institutional/corporate, domestic and international clientele. The subsidiaries of the Group bear minimal foreign exchange risk.

The Bank uses market risk models and dedicated processes to assess and quantify its portfolio market risk, based on best practice and industry-wide accepted risk metrics. More specifically, the Bank estimates the market risk of its Trading and HTCS portfolios, using the Value-at-Risk (VaR) methodology. The VaR estimates are used both for internal management and regulatory purposes. In order to verify the predictive power of the VaR model, the Bank conducts back-testing on its Trading Book, on a daily basis. Moreover, since the daily VaR estimations refer to "normal" market conditions, a supplementary analysis is necessary for capturing the potential loss that might arise under extreme and unusual circumstances in the financial markets. Thus, the Bank conducts stress testing on a weekly basis, on both the Trading and HTCS portfolios, based on specific scenarios per risk factor category (interest rates, stock index prices, exchange rates).

The Bank has also established a framework of VaR limits in order to control and manage the risks to which it is exposed in a more efficient way. These limits are based on the Bank's Risk Appetite, as outlined in the Risk Appetite Framework (RAF), the anticipated profitability of the Treasury, as well as on the level of the Bank's own funds (capital budgeting), in the context of the Group strategy. The VaR limits refer not only to specific types of market risk, such as interest rate, foreign exchange and equity, but also to the overall market risk of the Bank's trading and HTCS portfolios taking into account the respective diversification between portfolios. Moreover, the same set of limits are used to monitor and manage risk levels on the Trading book, on an overall basis and per risk type, since this is the aggregation level relevant for the calculation of the own funds requirements for Market Risk under the Internal Model Approach (IMA).

All key principles that govern the Bank's activities in the financial markets, along with the framework for the estimation, monitoring

and management of market risk are incorporated in the Bank's Market Risk Policy ("Policy"). The Policy is established to evidence the Bank's commitment to develop and adhere to the highest standards for assessing, measuring, monitoring and controlling market risk arising from trading and non-trading activities. The Policy has been approved by the Board Risk Committee and is reviewed and updated on an annual basis, or when deemed necessary. Additionally, the VaR model as well as the processes followed by the GFLRMD for the measurement and monitoring of Market Risk are described in the VaR/sVaR Model Methodology document, which is subordinate to the Market Risk Management Policy and is subject to changes, in accordance with amendments to the Policy.

The adequacy of the Market Risk Management Framework as a whole, as well as the appropriateness of the VaR model, were successfully reassessed by the SSM, in the context of the Targeted Review of Internal Models ("TRIM"). ECB concluded in its final Decision that NBG may continue calculating the own funds requirements for general market risk with the internal model approach, which verifies the robustness of the Bank's Market Risk management model. Furthermore, the Bank's independent Model Validation Unit (MVU) assesses the validity of the VaR model, on an annual basis, while the Internal Audit Division evaluates the effectiveness of the relevant controls, on a periodic basis.

NBG employs a three-line of defense framework, as per the NBG Risk Strategy, to monitor market risk and comply with market risk limits. The first line of defense is at the risk-taking level, where NBG's various market risk taking Business Lines are responsible to monitor and maintain compliance with the set market risk limits, on a continuous basis. The GFLRM Division constitutes the second line of defense, and is responsible to monitor and report NBG's market risk exposures and market risk limits utilization. Finally, NBG's Internal Audit is responsible to validate that the Group, as a whole, as well as the various departments individually, are compliant with the set market risk policies and procedures.

Regarding NBG Group's subsidiaries, they have independent market risk management units and report their positions and other market risk metrics to NBG's Market Risk Management Subdivision on a daily basis. However, given the low materiality and limited market risk exposure of NBG's subsidiaries, as well as the current NBG Group divestment plan, these entities do not use internal models for market risk capital calculations. To this extent, NBG uses internal models for monitoring market risk and calculates capital requirements only at a Bank level and subsequently consolidates the subsidiaries, at a Group level.

## 4.5 Operational Risk

### 4.5.1 Introduction

The Bank acknowledges its exposure to operational risk stemming from its day-to-day business activities. It also acknowledges the need for managing this type of risk, as well as the necessity for holding adequate capital in order to deal with any potential exceptional operational risk loss.

The Bank has established and maintains a group-wide, effective framework for the management of operational risk (Operational Risk Management Framework - ORMF). This Framework complies with regulatory requirements and is reviewed regularly.



## RISK MANAGEMENT FRAMEWORK

## 4.5.2 Definition and objectives

The Bank defines operational risk (OR) as the risk of loss resulting from inadequate or failure in internal processes, people and systems or from external events. This definition includes legal risk, excludes strategic and business risk, but takes into consideration the reputational impact of Operational Risk.

The main Operational Risk subcategories cover the following Risk Themes as described in the NBG Risk Taxonomy Framework:

- **Legal Risk** is the risk of loss caused to a business, in this instance the Bank, which is mainly due to one of the following causes: i) irregular transaction, or ii) claim (including defence-claims or counterclaims) raised or any other event that follows and leads to the establishment of legal grounds for liability on the part of the credit institution or another kind of loss (e.g. because of termination of contract), or iii) failure to adopt the necessary measures for the protection of assets owned by the institution, or iv) change in the legislation.
- **Compliance risk** refers to the risk that NBG, in the course of conducting its business or risk management activities, may be found, in circumstances of a breach of the regulatory framework as defined in certain international, EU and Greek laws and regulations, as well as the risk deriving from legal or regulatory sanctions, material financial loss or loss of reputation the Bank might suffer as a result of such breach. Consequently, the Bank's reputation, business model and financial position are negatively affected.
- **Conduct risk** as the risk of loss arising from inappropriate supply of financial services including cases of wilful or negligent misconduct, e.g. mis-selling, conflicts of interest, pushed cross-selling, automatic renewals of products or exit penalties etc. It also relates to corruption risk, i.e. the risk deriving from abuse of entrusted power by the Group's executives or employees with the purpose of private gain.
- **Information & Communication Technology risk**, which is the risk of loss due to breach of confidentiality, failure of integrity of systems and data, inappropriateness or unavailability of systems and data or inability to change IT within a reasonable time and costs when the environment or business requirements change. This includes security risks resulting from inadequate or failed internal processes or internal/external cyber-attacks or inadequate physical security.
- **Model risk**, which is the potential loss that may occur as a consequence of decisions that could be principally based on the output of all models deployed, due to errors in the development, implementation or use of such models. A model refers to a quantitative method, system or approach that applies statistical, economic, financial or mathematical theories, techniques and assumptions to convert input data into quantitative estimates.
- **Outsourcing Risk**, which is the risk that engaging a service provider, by virtue of an arrangement of any form between the Bank and a service provider, to perform a process, a service or an activity that would otherwise be undertaken by the Bank itself, adversely impacts the Bank's performance and risk management.

Operational risk is inherent to all products, activities, processes and systems and is generated in all business and support areas. For this reason, all employees are responsible for managing and controlling OR generated in their sphere of action. Consequently, managers

throughout the Group are accountable for operational risks related to their business area, and responsible for managing these risks within their risk appetite, in accordance with the ORMF.

The Bank's objective is to effectively identify, measure, evaluate, monitor, control and mitigate its operational risk.

## 4.5.3 Operational risk management framework

The ORMF has been approved by the Board Risk Committee, in order to effectively address operational risks and meet the regulatory requirements (CRR / CRD IV / Basel III).

In 2021 the ORMF was implemented in the Bank and its subsidiaries. The basic elements of the Bank's ORMF are the following:

- **The Risk and Control Self-Assessment (RCSA) process:** it is a recurring, forward looking process performed on an annual basis aiming at the identification and assessment of the operational risks faced by the Group. The scope of RCSA extends to all business lines, thereby to all business, support or specialized Units;
- **The Internal Events Management process:** NBG requires accurate and timely knowledge of operational risk related internal events and has therefore established an appropriate event management process that covers the event life cycle, comprising the event identification, categorization, analysis, on-going management, remediation actions and reporting;
- **The Key Risk Indicators definition and monitoring process:** NBG defines as Key Risk Indicator any simple or combined data variable, which allows the assessment of a situation exposing the Bank to operational risk, as well as its trend, by monitoring/comparing its values over time. Therefore, KRIs are metrics providing early warning signs, preventing and detecting potential risks and vulnerabilities in the activities of the Bank;
- **The Scenario Analysis process:** NBG defines Risk Scenario as the creation of a potential event or consequence of events that expose the organization to significant operational risks and can lead to severe operational losses. Scenario Analysis is the process that reveals all the long term exposures to major and unusual operational risks which can have substantial negative impacts on the organization's profitability and reputation;
- **The Training Initiatives and Risk Culture awareness actions:** Group Operational Risk Management Division designs and implements training programs on operational risk and the ORMF, the use and implementation of programs, methods and systems as well as other actions aiming at knowledge sharing and the establishment of Operational Risk culture Group-wide.

## 4.5.4 Governance

The ORMF is supported by an appropriate organizational structure with well-defined roles and responsibilities which is based on the three lines of defense model. The ORM Governance aims to ensure that all Bank's stakeholders, including the Board of Directors, Executive and Senior Management and Staff, manage operational risk within a formalized Framework that is aligned to business objectives and compliant with the regulatory requirements.

Governance responsibility for operational risk management resides in the Board Risk Committee (BRC). The BRC reviews and approves the Bank's operational risk appetite and tolerance, is informed on material risks and exposures and sets the tone and the expectations of the Board.

## RISK MANAGEMENT FRAMEWORK

GORMD also reports to the Operational Risk Management Committee (ORCO), a sub-committee of the Executive Committee (ExCo). ORCO, that has the overview of the ORMF implementation, meets regularly on a quarterly basis, providing a semi-annual report to the ExCo. An Outsourcing Committee, responsible for overseeing the outsourcing arrangements' risk of the Group was established and operates in accordance with the applicable legal and regulatory framework.

The Chief Risk Officer (CRO) promotes the development and implementation of a consistent Group ORMF and provides overall vision and leadership for the function across the Group.

GORMD is responsible for overseeing and monitoring the risks assessments, providing appropriate tools and methodologies, coordination and assistance to the Business Units and proposing appropriate risk mitigation measures. Furthermore, it regularly reviews the Group Framework in order to ensure that all relevant regulatory requirements are met.

The overall responsibility for the management of Operational Risk relies within the 1st Level of Defense Business Units, that are responsible and accountable for directly identifying, assessing, controlling and mitigating operational risk within their business activities in compliance with the Bank's standards and policies.

Segment and Unit Risk & Control Officer have been established and appointed in the main Business Functions/General Divisions of NBG. They act as liaisons to the GORMD and are responsible for coordinating the ORMF implementation, assisting in the development of the culture of operational risk and communicating relevant information throughout to the GORMD.

## 4.6 Analysis and Reporting

NBG places great emphasis on achieving a high level of quality regarding its risk data and reporting. The three Group Risk Management Divisions (GCRCD, GFLRMD, GORMD) and the independent Model Valuation Unit have developed a comprehensive framework of analysis and reporting, in order to provide the Bank's Board Risk Committee, Senior Management, regulatory authorities, the market and investors with consistent quantitative and qualitative information. Specialized applications are used to produce this analysis, collecting relevant data from the Bank's and Group's core systems (such as loans and credit limits systems, trading position-keeping systems, collateral management system etc.). NBG's software is fully configured to calculate Risk Weighted Assets for the entire Group according to the regulatory approach chosen for each portfolio, in accordance with the current CRR / CRD IV (Basel III) regulatory framework.

Among others, the following are analyzed and reported:

- Sensitivity analysis of the Bond and Derivatives portfolios on a solo and a Group basis;
- Data regarding RCSA results, Actions mitigating OpRisk status and Operational Risk losses;
- Exposures to Financial Institutions;
- Cross border exposures.
- Capital requirements for Credit Risk, Market Risk, Operational Risk and Counterparty Risk on a solo and on a Group basis;
- Large exposures on a solo and on a Group basis;
- Leverage exposure measure on a solo and on a Group basis;
- Large debtors;
- Quality and vintage analysis of the Bank's and its subsidiaries portfolios;
- Benchmarking of the Bank's Market Risk internal models;
- Daily Liquidity Reports pertaining to the Bank's liabilities, liquidity structure, counterbalancing capacity, as well as subsidiary-funding;
- Quarterly report of the Bank's Value at Risk and P&L results for backtesting purposes;

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5 REGULATORY OWN FUNDS & PRUDENTIAL REQUIREMENTS

The revised rules on capital and liquidity (CRR2 and CRDV) and resolution (BRRD2 and SRMR2) were published in the Official Journal on 7 June 2019, following a legislative process which began at the end of 2016. Most changes apply from June 2021. The Banking Package includes prudential standards adopted by the Basel Committee on Banking Supervision and by the Financial Stability Board (FSB), while its main objective is to reduce risk in the EU banking system.

The Banking Package comprises two regulations and two directives, relating to:

- bank capital requirements (amendments to regulation 575/2013 and directive 2013/36/EU);
- the recovery and resolution of banks in difficulty (amendments to directive 2014/59/EU and regulation 806/2014).

Table 5: EU KM1 – Key metrics template

Key Metrics		€ mio					
		Q4 21	Q4 21*	Q3 21	Q2 21	Q1 21	Q4 20
<b>Available own funds (amounts)</b>							
1	Common Equity Tier 1 (CET1) capital	4,833	5,853	5,102	5,191	5,240	5,750
2	Tier 1 capital	4,833	5,853	5,102	5,191	5,240	5,750
3	Total capital	5,057	6,077	5,326	5,540	5,589	6,098
<b>Risk-weighted exposure amounts</b>							
4	Total risk-weighted exposure amounts	34,326	34,708	36,346	36,433	36,322	36,617
<b>Capital ratios (as a percentage of risk-weighted exposure amount)</b>							
5	Common Equity Tier 1 ratio (%)	14.08%	16.86%	14.04%	14.25%	14.43%	15.70%
6	Tier 1 ratio (%)	14.08%	16.86%	14.04%	14.25%	14.43%	15.70%
7	Total capital ratio (%)	14.73%	17.51%	14.65%	15.21%	15.39%	16.65%
<b>Additional own funds requirements to address risks other than the risk of excessive leverage (as a percentage of risk-weighted exposure amount)</b>							
EU 7a	Additional own funds requirements to address risks other than the risk of excessive leverage (%)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
EU 7b	of which: to be made up of CET1 capital (percentage points)	1.69%	1.69%	1.69%	1.69%	1.69%	1.69%
EU 7c	of which: to be made up of Tier 1 capital (percentage points)	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
EU 7d	Total SREP own funds requirements (%)	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%
<b>Combined buffer requirement (as a percentage of risk-weighted exposure amount)</b>							
8	Capital conservation buffer (%)	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
EU 10a	Other Systemically Important Institution buffer	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
11	Combined buffer requirement (%)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
EU 11a	Overall capital requirements (%)	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
12	CET1 available after meeting the total SREP own funds requirements (%)	3.73%	6.51%	3.65%	4.21%	4.39%	5.65%
<b>Leverage Ratio</b>							
13	Total exposure measure	79,766	79,919	78,047	80,246	73,354	72,095
14	Leverage ratio (%)	6.06%	7.32%	6.54%	6.47%	7.14%	7.98%
<b>Additional own funds requirements to address the risk of excessive leverage (as a percentage of total exposure measure)</b>							
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EU 14b	of which: to be made up of CET1 capital (percentage points)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EU 14c	Total SREP leverage ratio requirements (%)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<b>Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)</b>							
EU 14d	Leverage ratio buffer requirement (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EU 14e	Overall leverage ratio requirements (%)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<b>Liquidity Coverage Ratio</b>							
15	Total high-quality liquid assets (HQLA) (Weighted value - average)	21,203	21,203	19,960	18,511	16,909	15,444
16	Total net cash outflows (adjusted value)	8,389	8,389	8,089	7,910	7,846	7,716
17	Liquidity coverage ratio (%)	252.85%	252.85%	246.46%	234.03%	215.50%	200.17%
<b>Net Stable Funding Ratio<sup>1</sup></b>							
18	Total available stable funding	61,572	61,572	61,033	60,685	59,223	58,496
19	Total required stable funding	45,746	45,746	45,117	45,235	48,232	48,336
20	NSFR ratio (%)	134.59%	134.59%	135.28%	134.16%	122.79%	121.02%

1 NSFR calculation since Q2 2021 is updated as per CRR2 (effective from 30 June 2021).

\* including profit for the period

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.1 Reconciliation of regulatory own funds to balance sheet in the audited financial statements

The table below presents the reconciliation between the balance sheet prepared for statutory and regulatory scope of consolidation. References in this table link to the corresponding references in table

“EU CC1 - Transitional Own Funds”, identifying balances relating to own funds calculation.

**Table 6: EU CC2- Reconciliation of regulatory own funds to balance sheet in the audited financial statements**

		31 December 2021		30 June 2021	
€ mio	Ref	Balance Sheet as in published financial statements	Under regulatory scope of consolidation	Balance Sheet as in published financial statements	Under regulatory scope of consolidation
ASSETS					
Cash and balances with central banks		15,827	15,827	10,802	10,802
Due from banks		3,639	3,639	2,875	2,875
Financial assets at fair value through profit or loss		314	314	534	545
Derivative financial instruments		4,331	4,331	4,618	4,618
Loans and advances to customers	f	30,439	30,614	29,942	29,992
Investment securities	d	14,937	14,937	15,519	15,519
Investment property		80	80	104	104
Investments in subsidiaries		0	0	0	0
Equity method investments	d	18	18	22	22
Goodwill, software and other intangible assets	c	353	353	299	299
Property and equipment		1,655	1,655	1,648	1,648
Deferred tax assets (DTAs)		4,912	4,912	4,908	4,908
of which: DTAs that rely on future profitability and arise from temporary differences	e	792	792	689	689
of which: DTAs that rely on future profitability and do not arise from temporary differences	e	3	3		
of which: DTAs that do not rely on future profitability		4,116	4,116	4,221	4,221
Current income tax advance		289	289	334	334
Other assets		2,671	2,677	2,601	2,594
Non-current assets held for sale		4,493	926	6,942	3,535
of which: Equity method investments	d	0	317	0	317
of which: Goodwill and other intangibles				-	-
of which: Deferred tax assets that rely on future profitability and arise from temporary differences	e			2	2
of which: Deferred tax assets that rely on future profitability and do not arise from temporary differences	e			2	2
Total assets		83,958	80,572	81,148	77,796
LIABILITIES					
Due to banks		14,731	14,731	13,905	13,905
Derivative financial instruments		3,014	3,014	2,937	2,937
Due to customers		53,493	53,515	51,055	51,069
Debt securities in issue		912	912	934	934
Other borrowed funds		79	79	60	60
Deferred tax liabilities		15	15	11	11
Retirement benefit obligations		271	272	300	300
Current income tax liabilities		4	4	3	3
Other liabilities		2,250	2,250	2,479	2,479
Liabilities associated with non-current assets held for sale		3,417	9	3,953	588
Total liabilities		78,186	74,801	75,637	72,286
SHAREHOLDERS' EQUITY					
Share capital		915	915	2,744	2,744
Share premium account		13,866	13,866	13,866	13,866
Less: treasury shares		0	0	(1)	(1)
Reserves and retained earnings		(9,031)	(9,031)	(11,119)	(11,119)
Equity attributable to NBG shareholders	a	5,750	5,750	5,490	5,490
Non-controlling interests	b	22	21	21	20
Total equity		5,772	5,771	5,511	5,510
Total equity and liabilities		83,958	80,572	81,148	77,796



## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.2 Balance sheet reconciliation between financial and regulatory reporting

The table below presents the differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories. References in this table link to the corresponding references in table "Own Funds Structure", identifying balances relating to own funds calculation.

**Table 7: EU LI1 - Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories**

€ mio	Ref	a Accounting Balance Sheet	b Regulatory Balance Sheet	c Subject to the credit risk framework	d Subject to the CCR framework	e Subject to the securitization framework	f Subject to the market risk framework	g Not subject to capital requirements or subject to deduction from capital
<b>ASSETS</b>								
Cash and balances with central banks		15,827	15,827	15,827				
Due from banks <sup>1 2 3</sup>		3,639	3,639	2,807	(959)		(966)	
Financial assets at fair value through profit or loss		314	314	17			297	
Derivative financial instruments <sup>2,3</sup>		4,331	4,331	0	4,333		4,326	
Loans and advances to customers	<i>f</i>	30,439	30,614	27,160	30	3,153		271
Investment securities	<i>d</i>	14,937	14,937	14,936				1
Investment property		80	80	80				
Investments in subsidiaries		0	0	0				
Equity method investments	<i>d</i>	18	18	14				4
Goodwill, software and other intangible assets	<i>c</i>	353	353	125				228
Property and equipment		1,655	1,655	1,655				
Deferred tax assets (DTAs)		4,912	4,912	4,477				435
of which: DTAs that rely on future profitability and arise from temporary differences	<i>e</i>	792	792	357				435
of which: DTAs that rely on future profitability and do not arise from temporary differences	<i>e</i>	3	3	0				3
of which: DTAs that do not rely on future profitability		4,116	4,116	4,116				
Current income tax advance		289	289	289				
Other assets		2,671	2,677	2,328			330	19
Non-current assets held for sale <sup>4</sup>		4,493	926	853				73
of which: Equity Method Investments	<i>d</i>	0	317	244				73
<b>Total assets</b>		<b>83,958</b>	<b>80,572</b>	<b>70,568</b>	<b>3,404</b>	<b>0</b>	<b>3,987</b>	<b>1,031</b>

1. The fair value of OTC derivatives is presented under the Derivative Asset or Derivative Liability line in the Balance Sheet and Derivatives used for Hedge Accounting respectively while the fair value of derivatives with CCPs is netted with the respective cash collateral received or paid to the respective counterparty, and the net amount is presented in the Balance Sheet line "Due from Banks" (column a). On the other hand, in columns (c) and (e) the fair value of derivatives with CCPs is depicted. Respectively for Repos and Reverse repos performed at the same date with the same counterparty and the same maturity date and for almost the same amount, we follow the same netting approach in line with IAS 32 para 42, in the Balance sheet line "Due from Banks". The latter approach is in line with the IFRS accounting framework and in particular with IAS 32 para 42.
2. Items in the trading book portfolio are subject to both Market and Counterparty Credit Risk frameworks.
3. The derivative financial instruments that are subject to the Market Risk framework are those held with a trading intent, thus included in the daily, regulatory, VaR and stressed VaR calculations. The remaining derivative transactions are used either as economic hedges or they are part of an accounting hedge relationship of banking book items.
4. Non-current assets held for sale at 31 December 2021 comprise of NIC, CAC Coral Ltd and Probank Leasing S.A. (Project "Pronto"). Non-current assets held for sale as of 31 December 2021, also include loan portfolio contemplated disposals mainly relating to Projects "Frontier II", "Solar" and "Pronto".

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

**Table 7: EU LI1 - Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories (continued)**

€ mio	Ref	a Accounting Balance Sheet	b Regulatory Balance Sheet	c Subject to the credit risk framework	d Subject to the CCR framework	e Subject to the securitization framework	f Subject to the market risk framework	g Not subject to capital requirements or subject to deduction from capital
<b>LIABILITIES</b>								
Due to banks		14,731	14,731		1,239			
Derivative financial instruments		3,014	3,014		3,015		2,261	
Due to customers <sup>1</sup>		53,493	53,515				411	
Debt securities in issue		912	912					
Other borrowed funds		79	79					
Deferred tax liabilities		15	15					
Retirement benefit obligations		271	272					
Current income tax liabilities		4	4					
Other liabilities		2,250	2,250					
Liabilities associated with non-current assets held for sale		3,417	9					
<b>Total liabilities</b>		<b>78,186</b>	<b>74,801</b>	<b>0</b>	<b>4,254</b>	<b>0</b>	<b>2,672</b>	<b>0</b>
<b>SHAREHOLDERS' EQUITY</b>								
Share capital		915	915					915
Share premium account		13,866	13,866					13,866
Less: treasury shares		0	0					0
Reserves and retained earnings		(9,031)	(9,031)					(9,031)
<b>Equity attributable to NBG shareholders</b>	<b>a</b>	<b>5,750</b>	<b>5,750</b>					<b>5,750</b>
Non-controlling interests	<b>b</b>	22	21					22
<b>Total equity</b>		<b>5,772</b>	<b>5,771</b>					<b>5,772</b>
<b>Total equity and liabilities</b>		<b>83,958</b>	<b>80,572</b>					<b>5,772</b>

<sup>1</sup> The amount of €411mio which is reported under the Market Risk framework is related to guaranteed deposits with embedded equity options offered to clients. Please note, that the fair valued item is the embedded equity option.

**Table 8: EU LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements**

€ mio	a Total	b Subject to the credit risk framework	c Subject to the CCR framework	d Subject to the securitization framework	e Subject to the market risk framework
<b>1 Assets carrying value amount under the scope of regulatory consolidation</b>	<b>80,572</b>	<b>70,568</b>	<b>3,402</b>	<b>3,153</b>	<b>3,972</b>
<b>2 Liabilities carrying value amount under the regulatory scope of consolidation</b>	<b>74,801</b>		<b>4,253</b>		<b>2,261</b>
<b>3 Total net amount under the regulatory scope of consolidation</b>	<b>5,771</b>	<b>70,568</b>	<b>(851)</b>	<b>3,153</b>	<b>1,711</b>
<b>4 Off-balance-sheet amounts</b>	<b>13,205</b>	<b>944</b>			
<b>5 Differences in valuations</b>					
<b>6 Differences due to different netting values, other than those already included in row 2</b>					
<b>7 Differences due to consideration of provisions</b>		<b>331</b>			
<b>8 Differences due to prudential filters</b>					
<b>9 Other adjustments related to credit risk mitigation techniques</b>		<b>2,660</b>		<b>3,147</b>	
<b>10 Exposure amounts considered for regulatory purposes</b>		<b>74,503</b>		<b>6</b>	

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.3 Regulatory vs accounting consolidation

All Group subsidiaries (companies which the Bank controls either directly or indirectly, regardless of their line of business) are consolidated in accordance with International Financial Reporting Standards (IFRS). For further information please refer to Note 2.4 of the 2021 Annual Financial Report.

In accordance with the regulatory requirements for consolidation as defined by the CRR and CRD IV, Group subsidiaries that are classified as banks, financial institutions or supplementary service providers are consolidated under the regulatory scope of consolidation.

Subsidiaries that are not fully consolidated for regulatory purposes (insurance entities) are accounted by applying the equity method.

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

In addition, participations exceeding 10% in the share capital or voting rights in financial sector entities (including insurance companies) are deducted from Common Equity Tier I capital (CET1) if exceeding threshold rules set in CRR.

Table 9: EU LI3 - Outline of the differences in the scope of consolidation

Name of entity	Method of accounting consolidation	Method of regulatory consolidation	Description of the entity
National Bank of Greece (Cyprus) Ltd	Full	Full	Financial Institution
NBG Bank Malta Ltd <sup>(4)</sup>	Full	Full	Financial Institution
Stopanska Banka A.D.-Skopje	Full	Full	Financial Institution
National Securities Single Member S.A.	Full	Full	Capital Markets & Investment Services
National Securities Co (Cyprus) Ltd <sup>(1)</sup>	Full	Full	Capital Markets Services
EKTENEPOL Construction Company Single Member S.A.	Full	Full	Construction Company
Ethniki Factors S.A.	Full	Full	Factoring Company
Ethniki Leasing S.A.	Full	Full	Financial Leasing
NBG Leasing S.R.L.	Full	Full	Financial Leasing
Probank Leasing S.A. <sup>(2)</sup>	Full	Full	Financial Leasing
NBG Finance (Dollar) Plc <sup>(1)</sup>	Full	Full	Financial Services
NBG Finance (Sterling) Plc <sup>(1)</sup>	Full	Full	Financial Services
NBG Finance Plc	Full	Full	Financial Services
NBG International Ltd	Full	Full	Financial Services
I-Bank Direct S.A. <sup>(1)</sup>	Full	Full	Financial Services
NBG Greek Fund Ltd	Full	Full	Fund Management
NBG Asset Management Luxembourg S.A.	Full	Full	Holding Company
NBG International Holdings B.V.	Full	Full	Holding Company
NBG Malta Holdings Ltd	Full	Full	Holding Company
NBG Insurance Brokers S.A.	Full	Full	Insurance Brokerage and Other Services
NBG Management Services Ltd	Full	Full	Management Services
NBG Asset Management Mutual Funds S.A.	Full	Full	Mutual Funds Management
NBGI Private Equity Ltd <sup>(1)</sup>	Full	Full	Private Equity
DIONYSOS S.A.	Full	Full	Real Estate Services
Ethniki Ktimatiki Ekmetalefsis Single Member S.A.	Full	Full	Real Estate Services
Hellenic Touristic Constructions S.A.	Full	Full	Real Estate Services
KADMOS S.A.	Full	Full	Real Estate Services
Mortgage Touristic PROTYPOS Single Member S.A.	Full	Full	Real Estate Services
NBG Property Services Single Member S.A.	Full	Full	Real Estate Services
ARC Management One SRL	Full	Full	Real Estate Services
ARC Management Two EAD	Full	Full	Real Estate Services
Sinepia Designated Activity Company (Special Purpose Entity) <sup>(3)</sup>	Full	Full	Special Purpose Entity (Securitisation of commercial loans)
Bankteco EOOD	Full	Full	Information Technology Services
Pronomiouchos Single Member S.A. Genikon Apothikon Hellados	Full	Full	Warehouse activities
Cac Coral Limited <sup>(2)</sup>	Full	Full	Debt Collection Company
Ethniki Hellenic General Insurance S.A. <sup>(2)</sup>	Full	Equity Method	Insurance Services
Ethniki General Insurance (Cyprus) Ltd <sup>(2)</sup>	Full	Equity Method	Insurance Services
Ethniki Insurance (Cyprus) Ltd <sup>(2)</sup>	Full	Equity Method	Insurance Services
S.C. Garanta Asigurari S.A. <sup>(2)</sup>	Full	Equity Method	Insurance – Reinsurance Services
National Insurance Agents & Consultants Ltd <sup>(2)</sup>	Full	Equity Method	Insurance Brokerage
Social Securities Funds Management S.A.	Equity Method	Equity Method	Associate Company
Larco S.A.	Equity Method	Equity Method	Associate Company
Eviop Tempo S.A.	Equity Method	Equity Method	Associate Company
Teiresias S.A.	Equity Method	Equity Method	Associate Company
Planet S.A.	Equity Method	Equity Method	Associate Company
Pyrrichos Real Estate S.A.	Equity Method	Equity Method	Associate Company
Sato S.A.	Equity Method	Equity Method	Associate Company
Olganos S.A.	Equity Method	Equity Method	Associate Company
Perigenis Business Properties S.A.	Equity Method	Equity Method	Associate Company

(1) Under Liquidation.

(2) Companies have been reclassified to Non-current assets held for sale.

(3) The liquidation of the entity was completed on 16 April 2021. The entity dissolved on 29 July 2021.

(4) In October 2021, the Bank decided to cease its operation in Malta through its subsidiary NBG Bank Malta Ltd.

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

There is no NBG Group subsidiary or associate, which is proportionately consolidated for regulatory or accounting purposes.

Based on the current regulatory framework there is no substantial, practical or legal incapacity in capital transfers or payment of obligations between parent Bank and its subsidiaries. The time of full repayment of the subordinated loans, which have already been granted by the parent Bank to its subsidiaries, has been notified to the appropriate Supervisory Authorities and abides by the relative regulations of each country. Potential early prepayment of the above mentioned loans requires prior permission from appropriate Regulatory Authorities.

#### Sinepia Designated Activity Company (SPE)

The liquidation of the entity was completed during the year.

### 5.4 Structure of own funds

**Regulatory capital**, according to CRR rules falls into two categories: Tier 1 and Tier 2 capital. Tier 1 capital is further divided into Common Equity Tier 1 (CET1) capital and Additional Tier 1 capital.

**CET1 capital** includes the Bank's ordinary shareholders' equity, share premium, reserves and retained earnings and minority interest allowed in consolidated CET1.

The following items are deducted from the above:

- positive or negative adjustments in the fair value of financial derivatives used for cash flow hedging;
- fair value gains and losses arising from the institution's own credit risk related to derivative liabilities;
- prudent valuation adjustment calculated according to article 105 of Regulation (EU) No 575/2013;
- goodwill and intangibles;

- deferred tax assets not arising from temporary differences;
- deferred tax assets arising from temporary differences; and significant investments that exceed 10%/17.65% of CET1 filter.

**Tier 2 capital** includes the issuance of a Tier 2 note, totalling €398 million.

NBG Group's regulatory capital structure is presented in the following table. In Q4 2021 CET1 capital decreased to €4,833 million, mainly due to the IFRS9 transitional arrangements and deductions relating to goodwill and intangibles, significant investments and deferred tax assets arising from temporary differences.

Table 10: Own Funds Structure

Group's Own Funds Structure (€ mio)	Q4 21	Q4 21*	Q3 21	Q3 21*
<b>Shareholders' Equity per balance sheet</b>	<b>5,750</b>	<b>5,750</b>	<b>5,692</b>	<b>5,692</b>
<b>Non-controlling interests</b>	<b>10</b>	<b>10</b>	<b>11</b>	<b>11</b>
<i>Non-controlling interests per balance sheet</i>	<i>21</i>	<i>21</i>	<i>21</i>	<i>21</i>
<i>Non-controlling interests not recognized in CET1</i>	<i>(11)</i>	<i>(11)</i>	<i>(10)</i>	<i>(10)</i>
<b>Regulatory Adjustments</b>	<b>(183)</b>	<b>684</b>	<b>63</b>	<b>830</b>
<i>Profit for the period</i>	<i>(867)</i>		<i>(767)</i>	
<i>IFRS9 transitional arrangements</i>	<i>735</i>	<i>735</i>	<i>873</i>	<i>873</i>
<i>Own credit risk</i>	<i>(39)</i>	<i>(39)</i>	<i>(34)</i>	<i>(34)</i>
<i>Prudent valuation adjustment</i>	<i>(11)</i>	<i>(11)</i>	<i>(12)</i>	<i>(12)</i>
<i>Cash flow hedging reserve</i>	<i>19</i>	<i>19</i>	<i>22</i>	<i>22</i>
<i>Other</i>	<i>(20)</i>	<i>(20)</i>	<i>(19)</i>	<i>(19)</i>
<b>Deductions</b>	<b>(744)</b>	<b>(591)</b>	<b>(664)</b>	<b>(528)</b>
<i>Goodwill and intangibles</i>	<i>(228)</i>	<i>(228)</i>	<i>(220)</i>	<i>(220)</i>
<i>Significant Investments</i>	<i>(78)</i>	<i>(45)</i>	<i>(72)</i>	<i>(44)</i>
<i>Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)</i>	<i>(3)</i>	<i>(3)</i>	<i>(2)</i>	<i>(2)</i>
<i>Deferred tax assets that rely on future profitability and arise from temporary differences</i>	<i>(435)</i>	<i>(315)</i>	<i>(370)</i>	<i>(262)</i>
<b>Common Equity Tier 1 Capital (CET1)</b>	<b>4,833</b>	<b>5,853</b>	<b>5,102</b>	<b>6,005</b>
<b>Additional Tier 1 Capital (AT1)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Tier 1 Capital</b>	<b>4,833</b>	<b>5,853</b>	<b>5,102</b>	<b>6,005</b>
<b>Capital instruments and subordinated loans eligible as Tier 2 Capital</b>	<b>399</b>	<b>399</b>	<b>399</b>	<b>399</b>
<b>Deductions</b>	<b>(175)</b>	<b>(175)</b>	<b>(175)</b>	<b>(175)</b>
<i>Subordinated loans of financial sector entities where the institution has a sign. Inv. in those entities</i>	<i>(175)</i>	<i>(175)</i>	<i>(175)</i>	<i>(175)</i>
<b>Tier 2 Capital</b>	<b>224</b>	<b>224</b>	<b>224</b>	<b>224</b>
<b>Total Regulatory Capital</b>	<b>5,057</b>	<b>6,077</b>	<b>5,326</b>	<b>6,229</b>

\* including profit for the period

The main features of capital instruments issued by the Group are presented in the table below.



## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

Table 11: EU CCA - Capital Instruments main features

Capital instruments' main features template			€ mio
1	Issuer	National Bank of Greece, S. A. (Greece)	National Bank of Greece S.A.
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	GRS003003035	XS2028846363
2a	Public or private placement	Public	Public
3	Governing law(s) of the instrument	Greek	English law, save that subordination provisions applicable to the Notes and provisions on statutory loss absorption powers will be governed by, and construed in accordance with, the laws of the Hellenic Republic
3a	Contractual recognition of write down and conversion powers of resolution authorities	N/A	Yes
<i>Regulatory treatment</i>			
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
8	Amount recognized in regulatory capital (currency in million, as of most recent reporting date)	915	400
9	Nominal amount of instrument	915 (914,715,153 shares @ €1.00 each)	400
9a	Issue price	-	100%
9b	Redemption price	-	100%
10	Accounting classification	Share Capital	Liability
11	Original date of issuance	Various	18/7/2019
12	Perpetual or dated	Perpetual	Dated
13	Original maturity date	-	18/7/2029
14	Issuer call subject to prior supervisory approval	N/A	Yes
15	Optional call date, contingent call dates, and redemption amount	N/A	18/7/2024
16	Subsequent call dates, if applicable	N/A	No. Call date is one-off
<i>Coupons / dividends</i>			
17	Fixed or floating dividend/coupon	N/A	Fixed Coupon
18	Coupon rate and any related index	N/A	8.25%. MS (-0.214%) + Reset Margin (+8.464%)
19	Existence of a dividend stopper	N/A	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	Non-Cumulative
23	Convertible or non-convertible	Non convertible	Non-Convertible
24	If convertible, conversion trigger (s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A
30	Write-down features	No	No
31	If write-down, write-down trigger (s)	N/A	N/A
32	If write-down, full or partial	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A
34a	Type of subordination (only for eligible liabilities)	N/A	N/A
34b	Ranking of the instrument in normal insolvency proceedings	1	3
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Additional Tier 1	The Notes constitute direct, unsecured and subordinated obligations of the Issuer and rank at all times (i) pari passu without any preference among themselves and pari passu with all other present and future subordinated and unsecured obligations of the relevant Issuer which rank or are expressed to rank pari passu with the Subordinated Notes, (ii) junior to present and future obligations of the relevant Issuer in respect of Unsubordinated Notes and Unsubordinated MREL Notes (and all other present and future obligations of the relevant Issuer which rank or are expressed to rank pari passu with Unsubordinated Notes and Unsubordinated MREL Notes) and Senior Non-Preferred Notes (and all other present and future obligations of the relevant Issuer which rank or are expressed to rank pari passu with Senior Non-Preferred Notes) and any other obligations of the relevant Issuer which rank or are expressed to rank senior to the Subordinated Notes, including (where the relevant Issuer is the Bank) deposits of the Bank and (iii) in priority to present and future subordinated and unsecured obligations of the relevant Issuer (A) which rank or are expressed to rank junior to the Subordinated Notes and (B) in respect of the share capital of such Issuer.
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	N/A
37a	Link to the full term and conditions of the instrument (signposting)	<a href="https://www.nbg.gr/english/the-group/corporate-governance/regulations-principles/Documents/ARTICLES_OF_ASSOCIATION.pdf">https://www.nbg.gr/english/the-group/corporate-governance/regulations-principles/Documents/ARTICLES_OF_ASSOCIATION.pdf</a>	<a href="https://www.nbg.gr/en/the-group/investor-relations/dept-investors/globalmediumtermnoteprogramme">https://www.nbg.gr/en/the-group/investor-relations/dept-investors/globalmediumtermnoteprogramme</a>

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.5 IFRS 9 impact on own funds

On 12 December 2017 the European Parliament and the Council of the European Union adopted Regulation (EU) 2017/2395 (the "Regulation"), which amended Regulation 575/2013 with Article 473a, allowing credit institutions to gradually apply the impact of the application of IFRS 9 to own funds.

In particular, upon adoption of IFRS 9, credit institutions are allowed to include in the Common Equity Tier 1 capital (CET1), a portion of the increased ECL provisions over a 5-year transitional period starting in 2018. The portion of ECL provisions that can be included in CET1 should decrease over time down to zero to ensure the full implementation of IFRS 9, after the end of the transitional period.

In addition, in accordance with paragraph (4) of the Regulation, if the ECL provisions for Stages 1 and 2 incurred after the first adoption of IFRS 9 are increased, credit institutions are allowed to include the increase in the transitional arrangements.

The percentages of recognition in CET1 of the increased ECL provisions during the 5-year transition period are as follows:

- 0.95 during the period from 01/01/2018-31/12/2018
- 0.85 during the period from 01/01/2019-31/12/2019
- 0.70 during the period from 01/01/2020-31/12/2020
- 0.50 during the period from 01/01/2021-31/12/2021
- 0.25 during the period from 01/01/2022-31/12/2022

The Group has decided to apply the transitional arrangements set out in Article 1 of the aforementioned Regulation, including the provisions of paragraph (4), during the transitional period.

According to the amendments of IFRS9 transitional arrangements due to CRR II "quickfix", transitional period is extended in order to mitigate the impact on own funds from the potential sudden increase in ECL allowance. More specifically, the reference date for any increase in ECL allowance (the "dynamic component"), is moved to 1 January 2020 and the CET1 add-back percentages for the new ECL provisions recognized in 2020 are set to:

- 1.00 during the period from 01/01/2020 – 31/12/2021
- 0.75 during the period from 01/01/2022 – 31/12/2022
- 0.50 during the period from 01/01/2023 – 31/12/2023
- 0.25 during the period from 01/01/2024 – 31/12/2024.

Furthermore, the calculation of the RWAs according to the reduction of the ECL provisions by the scaling factor (sf) is replaced by the application of a standard risk weight of 100% to the amounts added back to CET1 capital.

The table below presents a comparison of own funds, capital ratios and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs.

Table 12: IFRS 9 impact

Comparison of own funds, capital ratios and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs

	Q4 21	Q4 21*	Q3 21	Q2 21	Q1 21	Q4 20
<b>Available capital (amounts)</b>						
Common Equity Tier 1 (CET1) capital	4,833	5,853	5,102 <sup>1</sup>	5,191 <sup>2</sup>	5,240 <sup>3</sup>	5,750
Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,098	5,118	4,229 <sup>1</sup>	4,312 <sup>2</sup>	4,387 <sup>3</sup>	4,611
Tier 1 capital	4,833	5,853	5,102	5,191	5,240	5,750
Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,098	5,118	4,229	4,312	4,387	4,611
Total capital	5,057	6,077	5,326 <sup>1</sup>	5,540 <sup>2</sup>	5,589 <sup>3</sup>	6,098
Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,322	5,342	4,453 <sup>1</sup>	4,661 <sup>2</sup>	4,735 <sup>3</sup>	4,959
<b>Risk-weighted assets (amounts)</b>						
Total risk-weighted assets	34,326	34,708	36,346	36,433	36,322	36,617
Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	33,995	34,377	35,877	35,958	35,875	36,045
<b>Capital ratios</b>						
Common Equity Tier 1 (as percentage of risk exposure amount)	14.08%	16.86%	14.04% <sup>1</sup>	14.25% <sup>2</sup>	14.43% <sup>3</sup>	15.70%
Common Equity Tier 1 (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	12.06%	14.89%	11.79% <sup>1</sup>	11.99% <sup>2</sup>	12.23% <sup>3</sup>	12.79%
Tier 1 (as percentage of risk exposure amount)	14.08%	16.86%	14.04%	14.25%	14.43%	15.70%
Tier 1 (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	12.06%	14.89%	11.79%	11.99%	12.23%	12.79%
Total capital (as percentage of risk exposure amount)	14.73%	17.51%	14.65% <sup>1</sup>	15.21% <sup>2</sup>	15.39% <sup>3</sup>	16.65%
Total capital (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	12.71%	15.54%	12.41% <sup>1</sup>	12.96% <sup>2</sup>	13.20% <sup>3</sup>	13.76%
<b>Leverage ratio</b>						
Leverage ratio total exposure measure	79,766	79,919	78,047	80,246	73,354	72,095
Leverage ratio	6.06%	7.32%	6.54%	6.47%	7.14%	7.98%
Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5.16%	6.43%	5.45%	5.41%	6.02%	6.45%

\* Including profits for the period

<sup>1</sup> including profits for the period, CET1 capital and Total Capital are 6,005mio and 6,229mio respectively, resulting to CET1 and Total Capital ratios of 16.37% and 16.98% respectively. Moreover, without the application of IFRS 9 or analogous ECLs transitional arrangements, CET1 and Total Capital stand at 5,132mio and 5,356mio respectively, resulting to 14.17% and 14.79% CET1 and Total Capital ratios.

<sup>2</sup> including profits for the period, CET1 capital and Total Capital are 5,868mio and 6,217mio respectively, resulting to CET1 and Total Capital ratios of 15.99% and 16.95% respectively. Moreover, without the application of IFRS 9 or analogous ECLs transitional arrangements, CET1 and Total Capital stand at 4,989mio and 5,338mio respectively, resulting to 13.78% and 14.74% CET1 and Total Capital ratios.

<sup>3</sup> including profits for the period, CET1 capital and Total Capital are 5,895mio and 6,244mio respectively, resulting to CET1 and Total Capital ratios of 16.12% and 17.08% respectively. Moreover, without the application of IFRS 9 or analogous ECLs transitional arrangements, CET1 and Total Capital stand at 5,042mio and 5,391mio respectively, resulting to 13.96% and 14.92% CET1 and Total Capital ratios.

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.6 DTC Law

Article 27A of Greek Law 4172/2013 ("DTC Law"), as currently in force, allows credit institutions, under certain conditions, and from 2017 onwards to convert deferred tax assets ("DTAs") arising from (a) private sector initiative ("PSI") losses, (b) accumulated provisions for credit losses recognized as at 30 June 2015, (c) losses from final write off or the disposal of loans and (d) accounting write offs, which will ultimately lead to final write offs and losses from disposals, to a receivable ("Tax Credit") from the Greek State. Items (c) and (d) above were added with Greek Law 4465/2017 enacted on 29 March 2017. The same Greek Law 4465/2017 provided that the total tax relating to cases (b) to (d) above cannot exceed the tax corresponding to accumulated provisions recorded up to 30 June 2015 less (a) any definitive and cleared Tax Credit, which arose in the case of accounting loss for a year according to the provisions of par.2 of article 27A of Greek Law 4172/2013, which relate to the above accumulated provisions, (b) the amount of tax corresponding to any subsequent specific tax provisions, which relate to the above accumulated provisions and (c) the amount of the tax corresponding to the annual amortization of the debit difference that corresponds to the above provisions and other losses in general arising due to credit risk.

The main condition for the conversion of DTAs to a Tax Credit is the existence of an accounting loss at Bank level of a respective year, starting from accounting year 2016 and onwards. The Tax Credits will be calculated as a ratio of IFRS accounting losses to net equity (excluding the year's losses) on a solo basis and such ratio will be applied to the remaining Eligible DTAs in a given year to calculate the Tax Credit that will be converted in that year, in respect of the prior tax year. The Tax Credit may be offset against income taxes payable.

The non-offset part of the Tax Credit is immediately recognized as a receivable from the Greek State. The Bank is obliged to issue conversion rights to the Greek State for an amount of 100% of the Tax Credit in favour of the Greek State and will create a specific reserve for an equal amount. Common shareholders have pre-emption rights on these conversion rights. The reserve will be capitalized with the issuance of common shares in favour of the Greek State. This legislation allows credit institutions to treat such DTAs as not "relying on future profitability" according to CRD IV, and as a result such DTAs are not deducted from CET1, hence improving a credit institution's capital position.

Furthermore, Greek Law 4465/2017 amended article 27 "Carry forward losses" by introducing an amortization period of 20 years for losses due to loan write offs as part of a settlement or restructuring and losses that crystallize as a result of a disposal of loans. In addition, in 2021 Greek Law 4831 further amended article 27 of Greek Law 4172/2013 (please see "Note 27 Deferred tax assets and liabilities" of the 2021 Annual Financial Statements).

On 7 November 2014, the Bank convened an extraordinary General Shareholders Meeting which resolved to include the Bank in the DTC Law. An exit by the Bank from the provisions of the DTC Law requires regulatory approval and a General Shareholders meeting resolution. As of 31 December 2021, the amount of DTAs that were eligible for conversion to a receivable from the Greek State subject to the DTC Law was €4.1 billion (31 December 2020: €4.3 billion). The conditions for conversion rights were not met in the year ended 31 December 2021 and no conversion rights are deliverable in 2022.

## 5.7 Transitional own funds disclosure template

The table below provides information regarding the amounts and nature of specific items on own funds during the IFRS9 transitional period, in accordance with Annex IV of the Commission Implementing Regulation (EU) No 1423/2013.

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

Table 13: EU CC1 - Transitional Own Funds 31.12.2021

Transitional own funds disclosure template as of 31.12.2021		€ mio	€ mio *	ref
<b>Common Equity Tier 1 capital: Instruments and Reserves</b>				
1	Capital instruments and the related share premium accounts	14,781	14,781	a
	<i>of which: ordinary shares</i>	14,781	14,781	
2	Retained earnings	(14,672)	(14,672)	a
3	Accumulated other comprehensive income and other reserves	5,626	5,626	a
EU-3a	Funds for general banking risk	15	15	a
5	Minority Interests (amount allowed in consolidated CET1)	10	10	b
6	<b>Common Equity Tier 1 (CET1) capital before regulatory adjustments</b>	<b>5,760</b>	<b>5,760</b>	
<b>Common Equity Tier 1 capital: Regulatory Adjustments</b>				
7	Additional Value Adjustments	(11)	(11)	
8	Intangible assets (net of related tax liability)	(228)	(228)	c
9	Part of interim or year-end profit not eligible	(867)	-	
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences	(3)	(3)	e
11	Fair value reserves related to gain or losses on cash flow hedges	19	19	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(39)	(39)	
16	Direct and indirect holdings by an institution of own CET1 instruments	(1)	(1)	
19	CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold)	0	0	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold)	(329)	(242)	e
22	Amount exceeding the 17.65% threshold	(184)	(118)	
24	<i>Of which: CET1 instruments of financial sector entities where the institution has a significant investment in those entities</i>	(78)	(45)	d
25	<i>Of which: deferred tax assets arising from temporary differences</i>	(106)	(73)	e
26	Other CET1 capital elements or deductions	(19)	(19)	
27a	Other regulatory adjustments to CET1 capital (including IFRS 9 transitional adjustments)	735	735	
28	<b>Total regulatory adjustments to Common equity Tier 1 (CET1)</b>	<b>(927)</b>	<b>93</b>	
29	<b>Common Equity Tier 1 (CET1) capital</b>	<b>4,833</b>	<b>5,853</b>	
<b>Additional Tier 1 (AT1) capital</b>				
36	Additional Tier 1 (AT1) capital before regulatory adjustments	-	-	
<b>Additional Tier 1 (AT1) capital: regulatory adjustments</b>				
43	<b>Total regulatory adjustments to Additional Tier 1 (AT1) capital</b>	<b>0</b>	<b>0</b>	
44	Additional Tier 1 (AT1) capital	-	-	
45	<b>Tier 1 capital (T1 = CET1 + AT1 )</b>	<b>4,833</b>	<b>5,853</b>	
<b>Tier 2 (T2) capital</b>				
46	Capital instruments and the related share premium accounts	399	399	
51	<b>Tier 2 capital (T2) capital before regulatory adjustments</b>	<b>399</b>	<b>399</b>	
<b>Tier 2 (T2) capital: Regulatory adjustments</b>				
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities	(175)	(175)	f
57	<b>Total regulatory adjustments to Tier 2 (T2) capital</b>	<b>(175)</b>	<b>(175)</b>	
58	<b>Tier 2 (T2) capital</b>	<b>224</b>	<b>224</b>	
59	<b>Total capital (TC = T1 + T2)</b>	<b>5,057</b>	<b>6,077</b>	
60	<b>Total risk exposure amount</b>	<b>34,326</b>	<b>34,708</b>	
<b>Capital Adequacy Ratios</b>				
61	<b>Common Equity Tier 1</b>	<b>14.08%</b>	<b>16.86%</b>	
62	<b>Tier 1</b>	<b>14.08%</b>	<b>16.86%</b>	
63	<b>Total capital</b>	<b>14.73%</b>	<b>17.51%</b>	
64	Institution CET1 overall capital requirement	9.2%	9.2%	
65	<i>of which: capital conservation buffer requirement</i>	2.5%	2.5%	
66	<i>of which: countercyclical capital buffer requirement</i>	0.0%	0.0%	
67	<i>of which: systemic risk buffer requirement</i>	0.0%	0.0%	
EU-67a	<i>of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer</i>	0.5%	0.5%	
EU-67b	<i>of which: additional own funds requirements to address the risks other than the risk of excessive leverage</i>	1.7%	1.7%	
68	<b>Common Equity Tier 1 available after meeting the minimum capital requirements</b>	<b>3.73%</b>	<b>6.51%</b>	
<b>Amounts below the thresholds for deduction (before risk weighting)</b>				
72	Direct and indirect holdings of own funds and eligible liabilities 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)	53	53	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	261	294	d
75	Deferred tax assets arising from temporary differences (amount below 17.65% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	357	477	e

\* Including profits for the period



## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

Table 13: EU CC1 - Transitional Own Funds 30.06.2021

## Transitional own funds disclosure template as of 30.06.2021

€ mio ref

Common Equity Tier 1 capital: Instruments and Reserves			
1	Capital instruments and the related share premium accounts <i>of which: ordinary shares</i>	16,609 16,610	<i>a</i>
2	Retained earnings	(17,318)	
3	Accumulated other comprehensive income and other reserves	5,609	
3a	Funds for general banking risk	15	
5	Minority Interests (amount allowed in consolidated CET1)	10	<i>b</i>
6	<b>Common Equity Tier 1 (CET1) capital before regulatory adjustments</b>	<b>4,925</b>	
Common Equity Tier 1 capital: Regulatory Adjustments			
7	Additional Value Adjustments	(12)	
8	Intangible assets (net of related tax liability)	(190)	<i>c</i>
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) CRR are met)	(2)	<i>e</i>
11	Fair value reserves related to gain or losses on cash flow hedges of financial instruments that are not valued at fair value	23	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(32)	
19	CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold)	0	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold)	(219)	<i>e</i>
22	Amount exceeding the 17.65% threshold	(162)	
24	<i>Of which: CET1 instruments of financial sector entities where the institution has a significant investment in those entities</i>	(68)	<i>d</i>
25	<i>Of which: deferred tax assets arising from temporary differences</i>	(94)	<i>e</i>
26	Other CET1 capital elements or deductions	(19)	
27a	Other regulatory adjustments to CET1 capital (including IFRS 9 transitional adjustments)	879	
28	<b>Total regulatory adjustments to Common equity Tier 1 (CET1)</b>	<b>266</b>	
29	<b>Common Equity Tier 1 (CET1) capital</b>	<b>5,191</b>	
Additional Tier 1 (AT1) capital			
36	Additional Tier 1 (AT1) capital before regulatory adjustments	-	
Additional Tier 1 (AT1) capital: regulatory adjustments			
43	<b>Total regulatory adjustments to Additional Tier 1 (AT1) capital</b>	<b>-</b>	
44	Additional Tier 1 (AT1) capital	-	
45	<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>5,191</b>	
Tier 2 (T2) capital			
46	Capital instruments and the related share premium accounts	399	
51	<b>Tier 2 capital (T2) capital before regulatory adjustments</b>	<b>399</b>	
Tier 2 (T2) capital: Regulatory adjustments			
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities	(50)	<i>f</i>
57	<b>Total regulatory adjustments to Tier 2 (T2) capital</b>	<b>(50)</b>	
58	<b>Tier 2 (T2) capital</b>	<b>349</b>	
59	<b>Total capital (TC = T1 + T2)</b>	<b>5,540</b>	
60	<b>Total Risk Weighted Assets (RWAs)</b>	<b>36,433</b>	
Capital Adequacy Ratios			%
61	<b>Common Equity Tier 1</b>	<b>14.25%</b>	
62	<b>Tier 1</b>	<b>14.25%</b>	
63	<b>TOTAL</b>	<b>15.21%</b>	
64	Institution CET1 overall capital requirement (CET1 requirement in accordance with Article 92 (1) CRR, plus additional CET1 requirement which the institution is required to hold in accordance with point (a) of Article 104(1) CRD, plus combined buffer requirement in accordance with Article 128(6) CRD) expressed as a percentage of risk exposure amount	9.2%	
65	<i>of which: capital conservation buffer requirement</i>	2.5%	
67a	<i>of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer</i>	0.5%	
68	<b>Common Equity Tier 1 available to meet buffers</b>	<b>4.21%</b>	
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)	60	
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)	273	<i>d</i>
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)	377	<i>e</i>

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.8 Capital requirements under Pillar I

The next table presents the risk exposure amounts (or Risk Weighted Assets - RWAs) and the capital requirements at Group level under Pillar I as of 31.12.2021 and 30.09.2021, according to the CRR/CRD IV regulatory framework. The capital requirements under Pillar I are equal to 8% of the risk exposure amounts.

Total RWAs are broken down in 86.8% Credit (including Counterparty Credit Risk), 4.9% Market and 8.3% Operational RWAs, respectively.

On a quarterly basis total RWAs (€34.3Bn, proforma €34.7Bn) decreased significantly by €2.0Bn. Concerning Credit RWAs, reduction was encountered due to decline in defaulted assets by €2.5Bn stemming from completion of Project "Frontier" partially offset by increased RWAs (+€0.6Bn) in Corporate portfolio mainly due to new disbursements.

Table 14: EU OV1 - Overview of RWAs

Overview of RWAs		RWAs		Minimum Capital Requirements
		31.12.21	30.09.21	31.12.21
1	<b>Credit risk (excluding CCR)</b>	<b>29,249</b>	<b>31,785</b>	<b>2,340</b>
2	<i>Of which the standardised approach</i>	29,249	31,785	2,340
3	<i>Of which the foundation IRB (FIRB) approach</i>			
4	<i>Of which: slotting approach</i>			
EU 4a	<i>Of which: equities under the simple riskweighted approach</i>			
5	<i>Of which the advanced IRB (AIRB) approach</i>			
6	<b>Counterparty credit risk – CCR</b>	<b>528</b>	<b>338</b>	<b>42</b>
7	<i>Of which the standardised approach</i>	292	215	23
8	<i>Of which internal model method (IMM)</i>	0	0	0
EU 8a	<i>Of which exposures to a CCP</i>	9	10	1
EU 8b	<i>Of which credit valuation adjustment-CVA</i>	207	97	17
9	<i>Of which other CCR</i>	20	16	2
15	<b>Settlement risk</b>	<b>0</b>	<b>0</b>	<b>0</b>
16	<b>Securitisation exposures in the non-trading book (after the cap)</b>	<b>73</b>	<b>0</b>	<b>6</b>
17	<i>Of which SEC-IRBA approach</i>			
18	<i>Of which SEC-ERBA (including IAA)</i>			
19	<i>Of which SEC-SA approach</i>	73	0	6
EU 19a	<i>Of which 1250%/ deduction</i>			
20	<b>Position, foreign exchange and commodities risks (Market risk)</b>	<b>1,650</b>	<b>1,528</b>	<b>132</b>
21	<i>Of which the standardised approach</i>	498	538	40
22	<i>Of which IMA</i>	1,152	990	92
EU 22a	<b>Large exposures</b>			
23	<b>Operational risk</b>	<b>2,826</b>	<b>2,695</b>	<b>226</b>
EU 23a	<i>Of which basic indicator approach</i>			
EU 23b	<i>Of which standardised approach</i>	2,826	2,695	226
EU 23c	<i>Of which advanced measurement approach</i>			
24	<b>Amounts below the thresholds for deduction (subject to 250% risk weight) (For information)</b>	<b>1,544</b>	<b>1,593</b>	<b>124</b>
29	<b>Total</b>	<b>34,326</b>	<b>36,346</b>	<b>2,746</b>

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.9 Overall Capital Requirement (OCR)

Following the completion of the Supervisory Review and Evaluation Process (SREP) for year 2018, the ECB notified NBG Group of its total SREP capital requirement (TSCR), which applies from 1 March 2019. According to this decision, the ECB requires National Bank of Greece to maintain, on an individual and consolidated basis, a total SREP capital requirement of 11%.

The TSCR of 11% includes:

- the minimum Pillar I own funds requirement of 8% to be maintained at all times in accordance with Article 92(1) of Regulation (EU) No 575/2013; and
- an additional Pillar II own funds requirement of 3% to be maintained at all times in accordance with Article 16(2)(a) of Regulation (EU) No 1024/2013, to be made up entirely of Common Equity Tier 1 capital.

In addition to the TSCR, the Group is also subject to the Overall Capital Requirement (OCR). The OCR consists of the TSCR and the combined buffer requirement as defined in point (6) of Article 128 of Directive 2013/36/EU.

The combined buffer requirement is defined as the sum of:

- the Capital Conservation Buffer;
- the institution specific Countercyclical Capital Buffer (CCyB); and
- the systemic risk / systemically important institutions buffer, as applicable.

The Capital Conservation Buffer stands at 2.5% (from 1 January 2019 and thereafter) for all banks in the EU.

The systemic risk / systemically important institutions buffer for 2021 is 0.5% for all four systemically important banks in Greece, due to the imposition of such an O-SII buffer by the Bank of Greece (BoG Act 151 / 30.10.18) and will be phased in to 1% until 2023.

The CCyB is implemented as an extension of the capital conservation buffer and has the primary objective of protecting the banking sector from periods of excess aggregate credit growth that have often been associated with the build-up of system-wide risk. It is calculated as the weighted average of the buffers in effect in the jurisdictions to which a bank has significant credit exposures.

Bank of Greece defined its methodology for determining the CCyB in 2015 and consecutively set the CCyB at 0% for Greece throughout 2018-2021 according to its quarterly decisions. CCyB is also currently 0% in all other countries in which NBG Group has significant exposures.

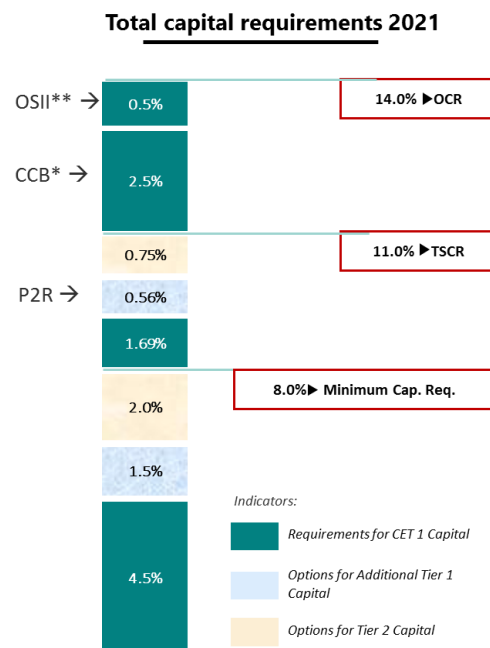
**Thus, the institution specific Countercyclical Capital Buffer for NBG Group is currently 0%, as depicted in the following table.**

**Table 15: EU CCyB2 - Amount of institution-specific countercyclical capital buffer**

	a
Total risk exposure amount	34,326
Institution specific countercyclical capital buffer rate	0
Institution specific countercyclical capital buffer requirement	0

NBG's total capital requirement for 2021, taking into account the short term waiver of Capital Conservation and OSII buffers, has been set to 11.5%.

The stacking order of the various own funds requirements for 2021 is shown in the figure below.



P2R: Pillar 2 Requirement, G-SII, O-SII: Global/Other Systemically Important Institutions

\*Waiver for suspension of Capital Conservation Buffer

\*\*Waiver for suspension of the phase-in of the OSII (+0.25%) for 2021

**Figure 6: Stacking order of own funds requirements**

On December 31<sup>st</sup>, 2021, NBG Group's CET1 capital ratio and Total capital ratio stood at 14.1% and 14.7% (including profit for the period 16.9% and 17.5%) respectively, well above the required capital requirement of 11.5% (for Total Capital).

The table below presents figures of credit and market exposures relevant for the calculation of the Countercyclical Capital Buffer for 31.12.2021 broken down by country.

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

Table 16: EU CCyB1 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer 31.12.2021

	a	b	c	d	e	f	g	h	i	j	k	l	m
	General Credit Exposures		Relevant Credit exposures – Market Risk		Securitisation exposures	Total exposure value	Total exposure value			Risk-weighted exposure amounts	Own fund requirements weights (%)	Countercyclical buffer rate (%)	
	Exposure value under the standardised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models	Exposure value for non-trading book		Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book				Total
Breakdown by country													
Greece	84,293		44		6	84,343	1,584	4	6	1,593	19,918	85.92%	0.00%
North Macedonia	1,374					1,374	70			70	879	3.79%	0.00%
Marshall Islands	1,030					1,030	83			83	1,038	4.48%	0.00%
Liberia	796					796	64			64	795	3.43%	0.00%
Great Britain	405					405	44			44	551	2.38%	0.00%
Total	87,898		44		6	87,948	1,845	4	6	1,855	23,181		

## 5.10 MREL Requirements

Under the Directive 2014/59 (Bank Recovery and Resolution Directive or (“BRRD”), as amended by Directive 2019/879 (BRRD II), banks in the European Union are required to maintain a Minimum Requirement for own funds and Eligible Liabilities (“MREL”), which ensures sufficient loss-absorbing capacity in resolution. MREL includes a risk- and a leverage-based dimension. MREL is therefore expressed as two ratios that both have to be met: (i) as a percentage of Total Risk Exposure Amount (“TREA”), (the “MREL-TREA”); and (ii) as a percentage of the Leverage Ratio Exposure (“LRE”), (the “MREL-LRE”).

Instruments qualifying for MREL are own funds (Common Equity Tier 1, Additional Tier 1 and Tier 2), as well as certain eligible liabilities (mainly senior unsecured bonds). Regulation (EU) No 806/2014 of the European Parliament and of the Council, as amended by Regulation (EU) No 877/2019 of the European Parliament and of the Council allows the Single Resolution Board (“SRB”) to set in addition to the MREL requirement, a “subordination” requirement, within MREL, against which only subordinated liabilities and own funds count.

On 24 January 2022, the Bank as being identified by the SRB as the Single Point of Entry (“SPE”) of the Group and the only entity required to maintain an MREL capacity, received from the Bank of Greece the SRB’s decision that should meet by 31 December 2025 an MREL target of 23.29% of TREA and 5.87% of LRE on a consolidated basis. In addition, as per the MREL decision the Bank should also meet by 1 January 2022 an interim binding target of 14.79% of TREA and 5.85% of LRE on a consolidated basis. To the above requirements the capital buffer requirement (“CBR”) must be added, which from 1 January 2022 stands at 3.25% and is expected to increase to 3.50% until 31 December 2025. The Bank maintains the MREL capacity required to meet both the LRE requirements and the 1 January 2022 interim binding target of 18.04 % of TREA (including CBR).

Finally, according to the abovementioned SRB’s decision, for 2022 no subordination requirement is set for the Bank.



## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

## 5.11 Leverage Ratio

Leverage ratio is calculated in accordance with the methodology set out in article 429 of the regulation (EU) No 575/2013 of the European Parliament and of the Council, as amended by European Commission delegated Regulation 62/2015 of 10 October 2014. It is defined as an institution's capital measure divided by that institution's total leverage exposure measure and is expressed as a percentage. The Group submits to the competent authority the leverage ratio on a quarterly basis. The following table includes the summary of the Group's leverage ratio with reference dates 31.12.2021 and 30.09.2021 (amounts in € mio):

Table 17: Leverage ratio

Leverage Ratio	Q4 21	Q4 21*	Q3 21
Tier I	4,833	5,853	5,102
Total Exposure Measure	79,766	79,919	78,047
Leverage Ratio	6.06%	7.32%	6.54%

\* including profit for the period

As of 31 December 2021, Group leverage ratio, according to the transitional definition of Tier I and the EU Regulation 62/2015, remained stable at the area of 6.1% (6.06% vs 6.54% as of 30 September 2021) still exceeding the proposed minimum threshold of 3% driven by Tier 1 capital reduction by €0.3Bn qoq along with total leverage exposures rise by €1.7Bn, attributed to increase of Deposits to Central Banks, Margins and Corporate Loans partially offset by decrease in Securities Financing transactions, Derivatives and Trading Bonds.

The following tables include the detailed disclosures on the Group's leverage ratio with reference date 31.12.2021 (amounts in € mio):

Table 18: EU LR1, LRSum – Summary reconciliation of accounting assets and leverage ratio exposures as of 31.12.2021 and 30.06.2021

€ mio	Applicable amount Q4 21	Applicable amount Q2 21
1 Total assets as per published financial statements	83,957	81,148
2 Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	(3,385)	(3,352)
3 (Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)		
4 (Adjustment for temporary exemption of exposures to central bank (if applicable))		
5 (Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with point (i) of Article 429a(1) CRR)		
6 Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting		
7 Adjustment for eligible cash pooling transactions		
8 Adjustments for derivative financial instruments	(1,024)	150
9 Adjustment for securities financing transactions (SFTs)	65	1,242
10 Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	2,101	1,828
11 (Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)		(12)
EU-11a (Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)		
EU-11b (Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (j) of Article 429a(1) CRR)		
12 Other adjustments	(1,947)	(759)
13 Leverage ratio Total exposure measure	79,766	80,246

Table 19: EU LR3, LRSpl – Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) as of 31.12.2021 compared to 30.06.2021

CRR leverage ratio exposures	Q4 21	€ mio Q2 21
<b>Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:</b>	<b>73,988</b>	<b>68,189</b>
EU-1		
EU-2 Trading book exposures	628	509
EU-3 Banking book exposures, of which:	73,360	67,680
EU-4 Covered bonds	-	-
EU-5 Exposures treated as sovereigns	41,059	33,694
EU-6 Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	776	754
EU-7 Institutions	1,451	941
EU-8 Secured by mortgages of immovable properties	9,128	9,304
EU-9 Retail exposures	2,972	3,001
EU-10 Corporate	12,009	11,521
EU-11 Exposures in default	1,603	4,263
EU-12 Other exposures (eg equity, securitisations, and other non-credit obligation assets)	4,362	4,203

## REGULATORY OWN FUNDS AND PRUDENTIAL REQUIREMENTS

Table 20: EU LR2, LRCom –Leverage ratio common disclosure 31.12.2021

		CRR leverage ratio exposures
		Q4 2021
<b>On-balance sheet exposures (excluding derivatives and SFTs)</b>		
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	75,996
2	Gross-up for derivatives collateral provided, where deducted from the balance sheet assets pursuant to the applicable accounting framework	
3	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(1,301)
4	(Adjustment for securities received under securities financing transactions that are recognised as an asset)	
5	(General credit risk adjustments to on-balance sheet items)	
6	(Asset amounts deducted in determining Tier 1 capital)	(432)
7	<b>Total on-balance sheet exposures (excluding derivatives and SFTs)</b>	74,264
<b>Derivative exposures</b>		
8	Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	2,635
EU-8a	Derogation for derivatives: replacement costs contribution under the simplified standardised approach	
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	671
EU-9a	Derogation for derivatives: Potential future exposure contribution under the simplified standardised approach	
EU-9b	Exposure determined under Original Exposure Method	
10	(Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	
EU-10a	(Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	
EU-10b	(Exempted CCP leg of client-cleared trade exposures) (Original Exposure Method)	
11	Adjusted effective notional amount of written credit derivatives	
12	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	
13	<b>Total derivatives exposures</b>	3,307
<b>Securities financing transaction (SFT) exposures</b>		
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	30
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	
16	Counterparty credit risk exposure for SFT assets	65
EU-16a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429e(5) and 222 CRR	
17	Agent transaction exposures	
EU-17a	(Exempted CCP leg of client-cleared SFT exposure)	
18	<b>Total securities financing transaction exposures</b>	95
<b>Other off-balance sheet exposures</b>		
19	Off-balance sheet exposures at gross notional amount	14,931
20	(Adjustments for conversion to credit equivalent amounts)	(12,829)
21	(General provisions deducted in determining Tier 1 capital and specific provisions associated with off-balance sheet exposures)	
22	<b>Off-balance sheet exposures</b>	2,101
<b>Excluded exposures</b>		
EU-22a	(Exposures excluded from the total exposure measure in accordance with point (c) of Article 429a(1) CRR)	
EU-22b	(Exposures exempted in accordance with point (j) of Article 429a(1) CRR (on and off balance sheet))	
EU-22c	(Excluded exposures of public development banks (or units) - Public sector investments)	
EU-22d	(Excluded exposures of public development banks (or units) - Promotional loans)	
EU-22e	(Excluded passing-through promotional loan exposures by non-public development banks (or units))	
EU-22f	(Excluded guaranteed parts of exposures arising from export credits)	
EU-22g	(Excluded excess collateral deposited at triparty agents)	
EU-22h	(Excluded CSD related services of CSD/institutions in accordance with point (o) of Article 429a(1) CRR)	
EU-22i	(Excluded CSD related services of designated institutions in accordance with point (p) of Article 429a(1) CRR)	
EU-22j	(Reduction of the exposure value of pre-financing or intermediate loans)	
EU-22k	(Total exempted exposures)	
<b>Capital and total exposure measure</b>		
23	<b>Tier 1 capital</b>	4,833
24	<b>Total exposure measure</b>	79,766
<b>Leverage ratio</b>		
25	Leverage ratio (%)	6.06%
EU-25	Leverage ratio (excluding the impact of the exemption of public sector investments and promotional loans) (%)	6.06%
25a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) (%)	6.06%
26	Regulatory minimum leverage ratio requirement (%)	3.00%
EU-26a	Additional own funds requirements to address the risk of excessive leverage (%)	0.00%
EU-26b	of which: to be made up of CET1 capital	0.00%
27	Leverage ratio buffer requirement (%)	0.00%
EU-27a	Overall leverage ratio requirement (%)	3.00%
<b>Choice on transitional arrangements and relevant exposures</b>		
EU-27b	Choice on transitional arrangements for the definition of the capital measure	
<b>Disclosure of mean values</b>		
28	Mean of daily values of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivable	3,477
29	Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	30
30	Total exposure measure (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	83,213
30a	Total exposure measure (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	83,213
31	Leverage ratio (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	5.81%
31a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	5.81%

## 6 CREDIT RISK

### 6.1 Definitions and general information

The Group has aligned the definition of default for financial reporting purposes, with the non performing exposures (NPE) definition used for regulatory purposes, as per EBA Implementing Technical Standards on Supervisory reporting on forbearance and non-performing exposures, as adopted by the Commission Implementing Regulation (EU) 2015/227 of 9 January 2015 amending Implementing Regulation (EU) No 680/2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council ("EBA ITS"). Following the financial crisis, the EBA established tighter standards around the definition of default (CRR Article 178) to achieve greater alignment across banks and jurisdictions being applied from 1 January 2021. The definition of default for financial reporting purposes is consistent with the one used for internal credit risk management purposes. The Group has also aligned the definition of default for financial reporting purposes, with the non performing exposures (NPE) definition used.

A debt security is considered as credit impaired under an objective approach, and classified into Stage 3, when at least one payment of capital or interest is overdue by the issuer, based on the contractual terms of the instrument, irrespective of the days past due. In addition, a debt security is assessed as credit impaired if there is at least one external credit rating on the security or the issuer (if no external rating on the security is available) corresponding to Default or Selective Default.

### 6.2 Impairment - Expected credit losses

ECL are recognised for all financial assets measured at amortised cost, debt financial assets measured at FVTOCI, lease receivables, financial guarantees and certain loan commitments. ECL represent the difference between contractual cash flows and those that the Group expects to receive, discounted at the at the financial asset's EIR. For loan commitments and other credit facilities in scope of ECL, the expected cash shortfalls are determined by considering expected future draw downs.

#### Recognition of expected credit losses

At initial recognition, an impairment allowance is required for ECL resulting from default events that are possible within the next 12 months (12-month ECL), weighted by the risk of a default occurring. Instruments in this category are referred to as instruments in Stage 1. For instruments with a remaining maturity of less than 12 months, ECL are determined for this shorter period.

In the event of a significant increase in credit risk ("SICR"), an ECL allowance is required, reflecting lifetime cash shortfalls that would result from all possible default events over the expected life of the financial instrument ("lifetime ECL"), weighted by the risk of a default occurring. Instruments in this category are referred to as instruments in Stage 2.

Lifetime ECL are always recognised on financial assets for which there is objective evidence of impairment, that is they are considered to be in default or otherwise credit-impaired. Such instruments are referred to as instruments in Stage 3.

#### Write-off

A write-off is made when the Group does not have a reasonable expectation to recover all or part of a financial asset. Write-offs reduce the principal amount of a claim and are charged against previously established allowances for credit losses. Recoveries, in part or in full, of amounts previously written off are generally credited to "credit provisions and other impairment charges". Write-offs and partial write-offs represent derecognition or partial derecognition events.

#### Measurement of expected credit losses

The Group assesses on a forward-looking basis the ECL associated with all financial assets subject to impairment under IFRS 9. The Group recognises an ECL allowance for such losses at each reporting date. The measurement of ECL reflects:

- An unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes. The Group uses three macroeconomic scenarios and estimates the ECL that would arise under each scenario. A weighting is allocated to each scenario, such that the weighted probabilities of all three scenarios are equal to one. The distribution of possible ECL may be non-linear, hence three distinct calculations are performed, where the associated ECLs are multiplied by the weighting allocated to the respective scenario. The sum of the three weighted ECL calculations represents the probability-weighted ECL.
- The time value of money.
- Reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

For the purposes of measuring ECL, the estimate of expected cash shortfalls reflects the cash proceeds expected from collateral liquidation (if any) and other credit enhancements that are part of the contractual terms and are not recognised separately by the Group. The estimate of expected cash shortfalls on a collateralised loan exposure reflects the assumptions used regarding the amount and timing of cash flows that are expected from foreclosure on the collateral less the costs of obtaining and selling the collateral, irrespective of whether the foreclosure is probable.

The ECL calculations are based on Exposure at Default ("EAD"), Probability of Default ("PD"), Loss given default ("LGD") and Discount Rate.

The PD and LGD are determined for three different scenarios whereas EAD projections are treated as scenario independent.

The ECL is determined by projecting the PD, LGD and EAD for each time step between future cash flow dates and for each individual exposure or collective segment. These three components are multiplied together and adjusted for the likelihood of survival, if appropriate. This effectively calculates an ECL for each future period, which is then discounted back to the reporting date and summed.

#### Forward looking economic inputs

Forward looking information (FLI) is incorporated in the ECL measurement of collectively assessed loans and debt securities

through the PD and LGD models. The expected recoveries (cash flow recoveries or liquidation of collateral) used in the ECL measurement of wholesale lending exposures individually assessed, takes into account FLI based on the Bank's forecasts of the relevant macroeconomic factors.

The Group applies three scenarios, i.e. baseline, optimistic, adverse, developed by the Bank's Economic Analysis Division ("EADN"). The macroeconomic scenarios used for measuring ECL are the same with the ones used for evaluating SICR.

### Significant increase of credit risk

A financial asset is classified as Stage 2 when a SICR since initial recognition has occurred and the financial asset does not meet the definition for Stage 3. At each reporting date, the Group performs the SICR assessment comparing the risk of a default occurring over the remaining expected lifetime of the exposure with the expected risk of a default as estimated at origination.

The Group's process to assess SICR is multi-factor and has three main components:

- **a quantitative element**, i.e. reflecting a quantitative comparison of PD or credit rating at the reporting date versus the respective metric at initial recognition;
- **a qualitative element**, i.e. all Forborne Performing Exposures (FPE), in accordance with EBA ITS, internal watch list for corporate obligors; and
- **"backstop" indicators**. The Group applies on all lending exposures the IFRS 9 presumption that a SICR has occurred when the financial asset is more than 30 days past due. In addition, for accounts not pertaining to the low credit risk segment, the Bank also applies the EBA backstop indicator of the threefold increase in PD as a rule for Stage 2 allocation.

### COVID-19 outbreak

In the first quarter of 2020, the World Health Organization declared the outbreak of COVID-19 a pandemic. COVID-19 has caused a significant global economic downturn which has adversely affected, and is expected to continue to adversely affect, the Group's business and results of operations. The future impacts of the COVID-19 pandemic on the Greek and/or global economy and the Group's business, results of operations and financial condition remain uncertain.

Due to COVID-19 pandemic, authorities implement numerous measures attempting to contain its spread and impact, such as travel bans and restrictions, quarantines, shelter in place orders, and limitations on business activity, including closures. These measures severely restrict economic activity, businesses, market participants, our counterparties and customers, as well as the Greek and/or global economy for a prolonged period of time. These restrictions took place in March 2020, while in May 2020 the restrictions were slowly eased. However, worsened epidemic trends in October-November 2020 led to a reintroduction of protective restrictions on economic and social activity at a national level starting on 7 November 2020 up to early May 2021. This poses significant downside risks to Gross Domestic Product ("GDP") growth in 2021 and could amplify the recessionary hit on households and businesses. These risks are partly offset by a set of measures provided in 2020 and continued in 2021.

The Group also evaluated its assets, including intangibles and equity investments, for potential impairment, and assessed fair values of financial instruments that are carried at fair value. Based upon our assessment as of 31 December 2021, no significant impairments

have been recorded and there have been no significant changes in fair values nor in the fair value hierarchy classifications.

## 6.3 Maturity classification of Credit exposures

The table below presents the remaining maturity of Loans and advances and Debt securities broken down by maturity buckets for 31.12.2021 and 30.06.2021.

**Table 21: EU CR1 A – Maturity of exposures 31.12.2021**

Exposure Class	a	b	c	d	e	f
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Loans and Advances	769	4,665	11,833	16,699		33,966
Debt Securities		1,740	544	12,584		14,868
<b>Total</b>	<b>769</b>	<b>6,406</b>	<b>12,377</b>	<b>29,283</b>		<b>48,834</b>

**Table 21: EU CR1 A – Maturity of exposures 30.06.2021**

Exposure Class	a	b	c	d	e	f
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Loans and Advances	768	5,685	9,948	16,174		32,575
Debt Securities		2,009	888	12,572		15,469
<b>Total</b>	<b>768</b>	<b>7,694</b>	<b>10,836</b>	<b>28,746</b>		<b>48,044</b>

## 6.4 Covid-19 Reporting

In the first quarter of 2020, the World Health Organization declared the outbreak of COVID-19 pandemic. Two years after the outbreak of the COVID-19 pandemic, the global environment remains impacted by the unprecedented crisis. The measures introduced by governments and regulators to tackle the pandemic have affected global supply chains as well as demand for goods and services and therefore had a significant impact on global growth. At the same time, fiscal and monetary policies have been eased to sustain the economy and the deployment of vaccines in 2021 has also greatly contributed to sustaining the economy.

The Group also evaluated its assets, including intangibles and equity investments, for potential impairment, and assessed fair values of financial instruments that are carried at fair value. Based on our assessment as of 31 December 2021, no significant impairments have been recorded for the Group and the Bank, and there have been no significant changes in fair values and in fair value hierarchy classifications as a result of the COVID-19.

**Extension of moratoria**, offered to NBG's customers within the context of EBA guidelines, government and sector initiatives, for capital or instalment payments for:

- performing Small Businesses;
- businesses with performing exposures as at 30 September 2020 and not included, so far, in moratoria for capital or instalment payments that have been proven to be affected by the COVID-19 pandemic, were eligible to apply for their inclusion in a relevant program by 31 March 2021 and for a maximum duration of up to nine months from the date of inclusion in the moratorium;
- businesses affected by the COVID-19 pandemic and have already been included in moratoria for capital or instalment payments, were eligible to apply by 31 March 2021 for an extension of their instalment suspension program, provided that their total participation in the program does not exceed the period of nine months.

It should be noted that ex moratoria client performance remains better than expected (defaults <4% as of February 2022), despite the gradual conclusion of supportive measures.

**Table 22** : Information on loans and advances subject to legislative and non-legislative moratoria 31.12.2021

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	
	Gross carrying amount				Accumulated impairment, accumulated negative changes in fair value due to credit risk											Gross carrying amount
	Performing		Non performing		Performing		Non performing		Performing		Non performing		Performing		Inflows to non-performing exposures	
	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: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	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: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	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: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		
1	Loans and advances subject to moratorium	27	27	3	22											
2	Households of which: Collateralised by residential immovable property															
3	of which: Non-financial corporations of which: Small and Medium-sized Enterprises of which: Collateralised by commercial immovable property															
4		27	27	3	22											
5		23	23	3	18											
6		6	6		6											



## CREDIT RISK

Table 22 : Information on loans and advances subject to legislative and non-legislative moratoria 30.06.2021

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	Gross carrying amount							Accumulated impairment, accumulated negative changes in fair value due to credit risk							Gross carrying amount
	Performing				Non performing				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		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
1 Loans and advances subject to moratorium of which:	36	32	4	29	4	4	4								4
2 Households															
3 of which: Collateralised by residential immovable property															
4 of which: Non-financial corporations	36	32	4	29	4	4	4								4
5 of which: Small and Medium-sized Enterprises	27	27	4	24											
6 of which: Collateralised by commercial immovable property	8	8	1	7											

Table 23 : Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria 31.12.2021

	a	b	c	d	e	f	g	h	i
	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	
1 Loans and advances for which moratorium was offered	128,516	3,395							
2 Loans and advances subject to moratorium (granted)	118,618	3,031	389	3,004	27				
3 of which: Households		1,278	297	1,278					
4 of which: Collateralised by residential immovable property		1,033	102	1,033					
5 of which: Non-financial corporations		1,727	91	1,700	27				
6 of which: Small and Medium-sized Enterprises		548	48	525	23				
7 of which: Collateralised by commercial immovable property		906	14	900	6				

## CREDIT RISK

**Table 23 :** Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria 30.06.2021

	a	b	c	d	e	f	g	h	i
	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
1	Loans and advances for which moratorium was offered	141,803	4,082						
2	Loans and advances subject to moratorium (granted)	130,787	3,654	475	3,618	6	29		
3	of which: Households		1,455	363	1,455				
4	of which: Collateralised by residential immovable property		1,145	116	1,145				
5	of which: Non-financial corporations		2,170	112	2,134	6	29		
6	of which: Small and Medium-sized Enterprises		670	64	644	2	24		
7	of which: Collateralised by commercial immovable property		282	16	275		7		

**Table 24 :** Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis 31.12.2021

	a	b	c	d
	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	
1	<b>Newly originated loans and advances subject to public guarantee schemes</b>	<b>1,223</b>	<b>978</b>	<b>3</b>
2	of which: Households			
3	of which: Collateralised by residential immovable property			
4	of which: Non-financial corporations	1,202	961	3
5	of which: Small and Medium-sized Enterprises	697		3
6	of which: Collateralised by commercial immovable property	1		

**Table 24 :** Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis 30.06.2021

	a	b	c	d
	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	
1	<b>Newly originated loans and advances subject to public guarantee schemes</b>	<b>1,307</b>	<b>11</b>	<b>1,045</b>
2	of which: Households			
3	of which: Collateralised by residential immovable property			
4	of which: Non-financial corporations	1,287	11	1,029
5	of which: Small and Medium-sized Enterprises	728		6
6	of which: Collateralised by commercial immovable property	2		5

## 6.5 Non-performing and forborne exposures

The Bank continues to operate in a challenging economic environment as a result of the Greek financial crisis. Against this backdrop, the Bank is executing a well-developed strategy that aims to reduce its NPE ratio and maximize collections from the Bank's troubled assets portfolio. This strategy includes a set of detailed operational targets and Key Performance Indicators as well as a time-bound action plan for their implementation with a view to significantly reducing NPE stocks.

The strategy establishes realistic but sufficiently ambitious targets, and NBG assesses its effectiveness and adequacy on a regular basis. The strategy is both consistent with, and linked to, the Bank's business plan and the current ICAAP.

### 6.5.1 Disposal of NPE portfolios

#### Completed in 2021

##### Project "Frontier"

On 17 December 2021, the Bank completed the Frontier transaction, which involves the securitization of a portfolio of NPE with a total gross book value of c. €6 billion as of 30 June 2020, following fulfillment of all conditions' precedent, including receipt of all necessary approvals. The portfolio consisted of secured Large Corporate, Small and Medium Enterprises ("SMEs"), Small Business Lending ("SBL"), Mortgages and Consumer Loans.

NBG retained 100.0% of the Senior Notes, which are guaranteed from the State under the Hellenic Asset Protection Scheme ("HAPS" – see below), selling 95.0% of the Mezzanine and Junior Notes to the consortium consisting of affiliates of Bain Capital Credit ("Bain Capital"), Fortress Investment Group and doValue Greece.

The Bank has also serviced the portfolio on behalf of the noteholders for the period between 17 December 2021 and 4 February 2022, when the migration of the portfolio to the long-term servicer (doValue Greece) took place.

Project "Frontier" represents a landmark transaction for the Bank. Specifically, the transaction (i) received two credit ratings, (ii) was not associated with a hive-down and (iii) is serviced by a servicer not arising from a carve out from the bank itself.

##### Hellenic Republic Asset Protection Scheme

In December 2019, the Greek parliament voted for the creation of an Asset Protection Scheme ("APS") (Greek Law 4649/2019) also known as the "Hercules Scheme". The Hercules Scheme will support banks on deleveraging NPEs through securitization, with the aim of obtaining greater market stability. The participation in the Hercules Scheme is voluntary and open to all Greek banks and it does not constitute state aid as guarantees are priced on market terms.

Under the Hercules Scheme, the Hellenic Republic will provide guarantees up to €12.0 billion on the senior bonds of securitizations of NPEs. The Hercules Scheme will become effective only when the originator has sold at least 50% plus one of junior tranches (and mezzanine if any) and the notes are of such amount that allows the derecognition and the Significant Risk Transfer ("SRT") of the securitized receivables.

Moreover, in July 2021, following the approval from the Directorate General for the Competition of the European Commission (the "DG Competition") on 9 April 2021 and based on the Greek Law

4818/2021, the "Hercules" Scheme (named also as "Hercules II") was extended by 18 months, with no material changes in terms.

##### Project "Icon"

On 12 February 2021, NBG announced that it has completed the disposal of a non-performing, predominantly secured, corporate loan portfolio (Project "Icon") with total principal amount as at 30 June 2019 of c. €1.6 billion (€0.6 billion of allocated collateral value) to Bain Capital. The transaction was implemented in the context of NBG's NPE deleveraging strategy and in accordance with the Operational Targets submitted to the SSM.

##### Project "Danube"

On 20 May 2021, the Bank completed the disposal of a Romanian-risk corporate NPE portfolio (Project "Danube") with a total gross book value of c. €174 million (€102 million of allocated collateral value) to Bain Capital. The transaction was being implemented in the context of NBG's NPE deleveraging strategy and in accordance with the Operational Targets submitted to the SSM.

#### Initiated in 2021

##### Project "Frontier II"

In 25 November 2021, the Bank decided the disposal of a portfolio of Greek NPEs in the form of a rated securitization that will utilize the provisions of HAPS. The Project "Frontier II" is accounting for c. €900 million, in terms of gross book value as of 31 December 2021. The portfolio consists of secured Large Corporate, SME, SBL, Mortgage Loans and Consumer Loans. The transaction is estimated to be completed within the 3Q.22.

##### Project "Pronto"

In December 2021, the Bank decided the disposal of the non-performing leasing exposures including: the sale of Probank Leasing S.A. shares, the sale of Bank's leasing portfolio (ex-FBB) and Sale of NBG Leasing S.A. lease portfolio. The net assets of Probank Leasing S.A. as of 31 December 2021 amounted to €36 million at Group level (€20 million at Bank level), while the gross book value of the Bank's and NBG Leasing's leasing portfolios, at the same date, amounted to €76 million. The closing of the transaction is expected to be completed by the end of 4Q.22.

##### Project "Solar"

In December 2021, the Bank decided to launch the divestment of the secured portfolio of SMEs (Project "Solar") with a gross book value c. €170 million as of 31 December 2021, through a joint securitization process under HAPS, while in parallel and from November 2021 continues to explore divestment through alternative routes. The divestment is expected to be concluded within the 4Q.22.

## CREDIT RISK

The tables below present Non performing and Forborne figures excluding held for sale assets.

Table 25: EU CQ1 - Credit quality of forborne exposures 31.12.2021

	a	b	c	d	e	f	g	h
	Gross carrying amount/ nominal amount of exposures with forbearance measures				Accumulated impairment		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non performing forborne			On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
			Of which defaulted	Of which impaired				
005 Cash balances at central banks and other demand deposits								
010 Loans and advances	2,446	1,157	1,157	1,100	(120)	(496)	2,601	570
020 Central Banks								
030 General Governments	5	21	21	21		(7)	19	14
040 Credit Institutions								
050 Other Financial Corporations	3	13	13	13	(1)	(4)	10	8
060 Non-Financial Corporations	309	756	756	700	(37)	(365)	533	309
070 Households	2,129	367	367	367	(83)	(120)	2,039	239
080 Debt Securities								
090 Loan Commitments given								
100 Total	2,446	1,157	1,157	1,100	(120)	(496)	2,601	570

Table 25: EU CQ1 - Credit quality of forborne exposures 30.06.2021

	a	b	c	d	e	f	g	h
	Gross carrying amount/ nominal amount of exposures with forbearance measures				Accumulated impairment		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non performing forborne			On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
			Of which defaulted	Of which impaired				
005 Cash balances at central banks and other demand deposits								
010 Loans and advances	2,485	1,955	1,955	1,899	(143)	(837)	3,001	984
020 Central Banks								
030 General Governments	1	18	18	18		(4)	14	13
040 Credit Institutions								
050 Other Financial Corporations	40	21	21	21	(8)	(9)	12	11
060 Non-Financial Corporations	396	1,093	1,093	1,037	(33)	(564)	736	421
070 Households	2,048	823	823	823	(102)	(260)	2,239	538
080 Debt Securities								
090 Loan Commitments given								
100 Total	2,485	1,955	1,955	1,899	(143)	(837)	3,001	984

Table 26: EU CQ2 - Quality of forbearance 31.12.2021 and 30.06.2021

	a	a
	Gross carrying amount of forborne exposures 31.12.2021	Gross carrying amount of forborne exposures 30.06.2021
1 Loans and advances that have been forborne more than twice	1,114	1,319
2 Non-performing forborne loan and advances that failed to meet the non-performing exit criteria	1,086	1,865

## CREDIT RISK

Table 27: EU CQ3 - Credit quality of performing and non-performing exposures by past due days 31.12.2021

		a	b	c	d	e	f	g	h	i	j	k	l
Gross carrying amount/ nominal amount													
		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 are past due ≤90 days	Past due >90 days ≤180 days	Past due >180 days ≤1 year	Past due >1 year ≤2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted	
05	Cash balances at central banks and other demand deposits	15,429	15,429										
1	Loans and advances	33,366	33,263	103	2,294	1,144	67	96	124	829	5	29	2,294
2	Central Banks												
3	General Governments	504	500	3	30	15	2			13			30
4	Credit Institutions	3,352	3,352										
5	Other Financial Corporations	3,670	3,670		18	14				1		3	18
6	Non-Financial Corporations	16,135	16,080	55	1,524	726	47	66	78	580	4	23	1,524
7	Of which SMEs	5,232	5,188	44	590	213	17	20	9	310	1	21	590
8	Households	9,706	9,661	45	721	388	18	30	46	236	1	3	721
9	Debt Securities*	14,948	14,948										
10	Central Banks												
11	General Governments	14,465	14,465										
12	Credit Institutions	242	242										
13	Other Financial Corporations	4	4										
14	Non-Financial Corporations	237	237										
15	Off-balance sheet exposures	13,072			139								139
16	Central Banks												
17	General Governments	336											
18	Credit Institutions	2											
19	Other Financial Corporations	222			2								2
20	Non-Financial Corporations	11,219			134								134
21	Households	1,293			4								4
22	Total	76,815	63,640	103	2,433	1,144	67	96	124	829	5	29	2,433

\*Included only Debt securities classified as HTC



## CREDIT RISK

Table 27: EU CQ3 – Credit quality of performing and non-performing exposures by past due days 31.12.2020

	a	b	c	d	e	f	g	h	i	j	k	l
	Gross carrying amount/ nominal amount											
	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 are past due ≤90 days	Past due >90 days ≤180 days	Past due >180 days ≤1 year	Past due >1 year ≤2 years	Past due >2 years ≤5 years	Past due >5 years ≤7 years	Past due >7 years	Of which defaulted	
05 Cash balances at central banks and other demand deposits												
1 Loans and advances	28,311	27,957	354	4,473	2,083	100	221	182	776	245	865	3891
2 Central Banks												
3 General Governments	434	317	117	28	18				9		1	28
4 Credit Institutions	3,172	3,172										
5 Other Financial Corporations	145	105	41	56	51				3		1	45
6 Non-Financial Corporations	14,971	14,909	62	2,552	1,031	27	127	119	594	158	495	2364
7 Of which SMEs	4,569	4,524	45	1,292	358	26	50	67	224	133	435	1134
8 Households	9,589	9,454	135	1,837	983	72	94	63	170	87	368	1455
9 Debt Securities*	12,290	12,290										
10 Central Banks												
11 General Governments	12,231	12,231										
12 Credit Institutions	31	31										
13 Other Financial Corporations	4	4										
14 Non-Financial Corporations	25	25										
15 Off-balance sheet exposures	10,465			192								143
16 Central Banks												
17 General Governments	79											
18 Credit Institutions	2											
19 Other Financial Corporations	101			1								1
20 Non-Financial Corporations	8,964			185								137
21 Households	1318			6								5
22 Total	51,066	40,247	354	4,665	2,083	100	221	182	776	245	865	4,034

\*Included only Debt securities classified as HTC

## CREDIT RISK

Table 28: EU CR1 - Performing and non-performing exposures and related provisions 31.12.2021

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	Gross carrying amount/ nominal amount					Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					Accumulated partial write-offs	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 to 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		
Cash balances at central banks and other demand deposits	15,429	15,429													
Loans and advances	33,366	28,309	4,754	2,294		2,213	(476)	(206)	(270)	(1,217)		(1,181)	(232)	18,832	871
Central Banks															
General Governments	504	491	12	30		30	(7)	(6)	(1)	(16)		(16)		142	14
Credit Institutions	3,352	3,352													
Other Financial Corporations	3,670	3,377	5	18		18	(20)	(20)	(1)	(8)		(8)	(3)	3,188	8
Non-Financial Corporations	16,135	14,418	1,703	1,524		1,443	(280)	(123)	(157)	(875)		(839)	(143)	7,985	500
Of which SMEs	5,232	4,043	1,189	590		567	(159)	(37)	(121)	(347)		(330)	(36)	2,830	202
Households	9,706	6,671	3,034	721		721	(169)	(58)	(111)	(318)		(318)	(86)	7,517	349
Debt Securities	14,948	13,300	1,631				(81)	(22)	(59)						
Central Banks															
General Governments	14,465	12,874	1,590				(76)	(19)	(58)						
Credit Institutions	242	230					(1)	(1)							
Other Financial Corporations	4														
Non-Financial Corporations	237	196	41				(3)	(2)	(1)						
Off-balance sheet exposures	13,072	12,281	791	139		139	(7)	(2)	(5)	(48)		(48)		19	
Central Banks															
General Governments	336	336	1												
Credit Institutions	2	2													
Other Financial Corporations	222	222		2		2				(1)		(1)			
Non-Financial Corporations	11,219	10,461	759	134		134	(6)	(2)	(4)	(47)		(47)		18	
Households	1,293	1,262	32	4		4								1	
Total*	76,815	69,319	7,177	2,433		2,352	(563)	(230)	(333)	(1,265)		(1,229)	(232)	18,851	871

\* Cash balances at central banks and other demand deposits are not included

## CREDIT RISK

Table 28: EU CR1 - Performing and non-performing exposures and related provisions 30.06.2021

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	Gross carrying amount/ nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					Accumulated partial write-offs	Collateral 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 to 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					
Cash balances at central banks and other demand deposits	10,516	10,516													
Loans and advances	31,111	26,450	4,373	4,173		4,068	(426)	(181)	(244)	(2,284)		(2,243)	(76)	15,161	1,574
Central Banks															
General Governments	3,445	3,433	12	28		28	(6)	(6)		(14)		(14)		102	13
Credit Institutions	2,583	2,583													
Other Financial Corporations	413	90	42	23		23	(17)	(9)	(8)	(10)		(10)	(3)	28	12
Non-Financial Corporations	15,155	13,823	1,324	2,492		2,387	(214)	(104)	(110)	(1,553)		(1,512)	(41)	7,681	746
Of which SMEs	4,682	3,773	909	1,279		1,239	(128)	(35)	(92)	(764)		(745)	(24)	2,664	439
Households	9,516	6,521	2,994	1,629		1,629	(188)	(63)	(125)	(707)		(707)	(32)	7,351	803
Debt Securities	15,588	14,112	1,451				(120)	(32)	(87)						
Central Banks															
General Governments	15,284	13,862	1,422				(113)	(28)	(85)						
Credit Institutions	77	56					(1)	(1)							
Other Financial Corporations	4														
Non-Financial Corporations	223	194	29				(5)	(3)	(2)						
Off-balance sheet exposures	10,169	9,495	674	183		183	(9)	(3)	(6)	(43)		(43)			
Central Banks															
General Governments	85	83	2												
Credit Institutions	2	2													
Other Financial Corporations	86	86		1		1	(2)		(2)						
Non-Financial Corporations	8,622	7,996	626	176		176	(7)	(2)	(4)	(43)		(43)			
Households	1,373	1,328	46	6		6									
Total*	56,869	50,057	6,498	4,356		4,251	(554)	(216)	(338)	(2,327)		(2,285)	(76)	15,161	1,574

\* Cash balances at central banks and other demand deposits are not included

## CREDIT RISK

Table 29: EU CQ4 - Quality of non-performing exposures by geography 31.12.2021

		a	b	c	d	e	f	g
		Gross carrying amount/ nominal amount			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 non-performing	Of which defaulted				
1	On-balance-sheet exposures	50,608	2,294	2,294	50,208	(1,737)		(36)
2	Cyprus	577	58	58	576	(29)		
3	Germany	796			786			
4	Spain	2,765			2,765	(1)		
5	United Kingdom	1,158	1	1	1,158	(1)		
6	Greece	36,586	2,129	2,129	36,225	(1,610)		(36)
7	Italy	2,782			2,782	(1)		
8	Marshall Islands**	1,055			1,055			
9	North Macedonia	1,625	93	93	1,625	(66)		
10	Other countries**	3,263	14	14	3,236	(29)		
11	Off-balance-sheet-exposures	13,211	139	139			54	
12	Cyprus	397	4	4				
13	Germany							
14	Spain							
15	United Kingdom	30						
16	Greece	12,495	131	131			54	
17	Italy							
18	Marshall Islands							
19	North Macedonia	285						
20	Other countries	4	4	4				
21	Total	63,819	2,433	2,433	50,208	(1,737)	54	(36)

\* Accumulated impairment is not reported for off balance-sheet exposures

\*\* Exposures to Marshall Islands are related to ocean shipping. The same applies for Other Countries that include exposures to Liberia.

Table 29: EU CQ4 - Quality of non-performing exposures by geography 30.06.2021

		a	b	c	d	e	f	g
		Gross carrying amount/ nominal amount			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 non-performing	Of which defaulted				
1	On-balance-sheet exposures	50,873	4,173	4,173	50,454	(2,788)		(42)
2	Greece	38,486	4,047	4,047	38,114	(2,689)		(42)
3	Spain	2,816			2,816	(1)		
4	Other countries**	2,589	20	20	2,562	(17)		
5	Italy	2,186			2,186	(2)		
6	North Macedonia	1,578	104	104	1,578	(77)		
7	United Kingdom	1,100	1	1	1,100	(1)		
8	Marshall Islands**	1,051			1,051			
9	Germany	760			741			
10	Cyprus	307	1	1	305	(1)		
11	Off-balance-sheet-exposures	10,352	183	183			52	
12	Greece	9,796	175	175			51	
13	North Macedonia	266						
14	Cyprus	249	3	3				
15	United Kingdom	36						
16	Other countries	5	5	5				
17	Total	61,225	4,356	4,356	50,454	(2,788)	52	(42)

\* Accumulated impairment is not reported for off balance-sheet exposures

\*\* Exposures to Marshall Islands are related to ocean shipping. The same applies for Other Countries that include exposures to Liberia.

## CREDIT RISK

Table 30: EU CQ5 - Credit quality of loans and advances by industry 31.12.2021

		a	b	c	d	e	f
		Gross carrying amount			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 non-performing					
		of which defaulted					
1	Agriculture, forestry and fishing	351	47	47	351	(34)	
2	Mining and quarrying	13	2	2	12	(2)	(1)
3	Manufacturing	4,291	512	512	4,271	(405)	(14)
4	Electricity, gas, steam and air conditioning supply	1,545	4	4	1,545	(15)	
5	Water supply	43	1	1	43	(1)	
6	Construction	555	38	38	555	(37)	
7	Wholesale and retail trade	3,071	347	347	3,069	(290)	(1)
8	Transport and storage	3,296	133	133	3,224	(59)	(20)
9	Accommodation and food service activities	1,424	224	224	1,423	(143)	
10	Information and communication	357	33	33	357	(23)	
11	Real estate activities	1,547	110	110	1,547	(53)	
12	Financial and insurance activities	43			43		
13	Professional, scientific and technical activities	302	30	30	302	(25)	
14	Administrative and support service activities	181	14	14	181	(13)	
15	Public administration and defense, compulsory social security						
16	Education	24	1	1	24	(2)	
17	Human health services and social work activities	168	3	3	168	(6)	
18	Arts, entertainment and recreation	135	14	14	135	(5)	
19	Other services	315	11	11	315	(6)	
20	Total	17,659	1,524	1,524	17,563	(1,118)	(36)

Table 30: EU CQ5 - Credit quality of loans and advances by industry 30.06.2021

		a	b	c	d	e	f
		Gross carrying amount			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 non-performing					
		of which defaulted					
1	Agriculture, forestry and fishing	255	60	60	255	(34)	
2	Mining and quarrying	759	307	307	759	(276)	
3	Manufacturing	2,678	515	515	2,678	(329)	(22)
4	Electricity, gas, steam and air conditioning supply	2,003	6	6	2,003	(20)	
5	Water supply	1			1		
6	Construction	776	101	101	776	(79)	
7	Wholesale and retail trade	3,529	698	698	3,529	(492)	(3)
8	Transport and storage	3,021	134	134	3,021	(50)	(14)
9	Accommodation and food service activities	1,478	229	229	1,478	(142)	
10	Information and communication	151	2	2	151	(1)	
11	Real estate activities	1,361	127	127	1,361	(77)	
12	Financial and insurance activities						
13	Professional, scientific and technical activities	310	102	102	310	(72)	
14	Administrative and support service activities	14			14		
15	Public administration and defense, compulsory social security						
16	Education	30	30	30	30	(12)	
17	Human health services and social work activities	165	5	5	165	(8)	
18	Arts, entertainment and recreation	3			3		
19	Other services	1,116	176	176	1,003	(133)	(1)
20	Total	17,647	2,492	2,492	17,534	(1,726)	(42)



## CREDIT RISK

Table 31: EU CQ6 - Collateral valuation - loans and advances 31.12.2021

	a	b	c	d	e	f	g	h	i	j	k	l
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
1 Gross carrying amount	35,660	33,366	103	2,294	1,144	1,150	67	96	124	829	5	29
2 Of which: secured	27,004	25,207	73	1,797	910	887	28	77	80	687	5	11
3 Of which: secured with Immovable property	13,153	11,683	31	1,470	812	659	22	64	71	496	1	5
4 Of which: instruments with LTV higher than 60% and lower or equal to 80%	3,114	2,899		215	139	76						
5 Of which: instruments with LTV higher than 80% and lower or equal to 100%	1,816	1,614		201	116	86						
6 Of which: instruments with LTV higher than 100%	3,442	2,774		668	418	250						
7 Accumulated impairment for secured assets	(1,182)	(328)	(5)	(854)	(290)	(564)	(7)	(33)	(50)	(463)	(4)	(9)
8 Collateral												
9 Of which value capped at the value of exposure	14,461	13,658	55	804	525	279	16	36	23	202	1	1
10 Of which: Immovable property	10,664	10,001	39	663	459	204	15	34	22	131		1
11 Of which value above the cap	15,843	14,319	46	1,524	628	896	24	37	43	753	39	
12 Of which: Immovable property	10,431	9,355	38	1,076	477	599	21	32	42	476	29	
13 Financial guarantees received	5,242	5,174	6	67	53	14	3	2	1	9		
14 Accumulated partial write-off	(232)	(4)		(228)	(115)	(114)				(113)		

Table 31: EU CQ6 - Collateral valuation - loans and advances 30.06.2021

	a	b	c	d	e	f	g	h	i	j	k	l
Loans and advances												
	Performing			Non- performing								
				Unlikely to pay that are not past due or are 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
1 Gross carrying amount	35,285	31,111	262	4,173	1,780	2,393	195	196	185	1,722	91	5
2 Of which: secured	27,265	23,860	226	3,405	1,539	1,867	154	122	140	1,354	91	5
3 Of which: secured with Immovable property	10,547	9,070	46	1,477	771	706	67	47	74	464	54	1
4 Of which: instruments with LTV higher than 60% and lower or equal to 80%												
5 Of which: instruments with LTV higher than 80% and lower or equal to 100%												
6 Of which: instruments with LTV higher than 100%												
7 Accumulated impairment for secured assets	(1,978)	(284)	(22)	(1,694)	(546)	(1,148)	(60)	(53)	(65)	(922)	(43)	(5)
8 Collateral												
9 Of which value capped at the value of exposure	14,618	13,122	126	1,496	853	642	85	56	61	393	48	
10 Of which: Immovable property	11,129	9,864	74	1,265	739	526	76	54	55	306	35	
11 Of which value above the cap	15,684	13,305	92	2,379	834	1,545	108	64	124	1,233	16	
12 Of which: Immovable property	10,612	8,777	62	1,835	658	1,177	92	62	97	918	8	
13 Financial guarantees received	2,118	2,039	28	79	56	22	5	1	3	13		
14 Accumulated partial write-off	(76)	(2)		(74)	(44)	(31)			(4)	(27)		

## CREDIT RISK

**Table 32: EU CR2 - Changes in the stock of non-performing loans and advances 31.12.2021**

	a
	Gross carrying amount
1 Initial stock of non-performing loans and advances, Dec 31,2020	4,473
2 Inflows to non-performing portfolios	876
3 Outflows from non-performing portfolios	(3,055)
4 Outflows due to write-offs	(474)
5 Outflow due to other situations	(2,581)
6 Final stock of non-performing loans and advances, Dec 31, 2021	2,294

**Table 32: EU CR2 - Changes in the stock of non-performing loans and advances 30.06.2021**

	a
	Gross carrying amount
1 Initial stock of non-performing loans and advances, Dec 31,2020	4,473
2 Inflows to non-performing portfolios	447
3 Outflows from non-performing portfolios	(746)
4 Outflows due to write-offs	(75)
5 Outflow due to other situations	(671)
6 Final stock of non-performing loans and advances, Jun 30, 2021	4,173

**Table 33: EU CR2a - Changes in the stock of non-performing loans and advances and related net accumulated recoveries 31.12.2021**

	a	b
	Gross carrying amount	Related net accumulated recoveries
1 Initial stock of non-performing loans and advances, Dec 31, 2020	4,473	
2 Inflows to non performing portfolios	876	
3 Outflows from non-performing portfolios	(3,055)	
4 Outflow to performing portfolio	(998)	
5 Outflow due to loan repayment, partial or total	(237)	
6 Outflow due to collateral liquidations	(29)	20
7 Outflow due to taking possession of collateral	(27)	14
8 Outflow due to sale of instruments	(36)	5
9 Outflow due to risk transfers		
10 Outflows due to write-offs	(474)	
11 Outflow due to Other Situations	(37)	
12 Outflow due to reclassification as held for sale	(1.217)	
13 Final stock of non-performing loans and advances, Dec 31, 2021	2,294	

**Table 33: EU CR2a - Changes in the stock of non-performing loans and advances and related net accumulated recoveries 30.06.2021**

	a	b
	Gross carrying amount	Related net accumulated recoveries
1 Initial stock of non-performing loans and advances, Dec 31,2020	4,473	
2 Inflows to non-performing portfolios	447	
3 Outflows from non-performing portfolios	(746)	
4 Outflow to performing portfolio	(400)	
5 Outflow due to loan repayment, partial or total	(132)	
6 Outflow due to collateral liquidation	(11)	5
7 Outflow due to taking possession of collateral	(13)	4
8 Outflow due to sale of instruments	(36)	5
9 Outflow due to risk transfers		
10 Outflow due to write-off	(75)	
11 Outflow due to other situations	(70)	
12 Outflow due to reclassification as held for sale	(10)	
13 Final stock of non-performing loans and advances, Jun 30, 2021	4,173	

## CREDIT RISK

**Table 34: EU CQ7 - Collateral obtained by taking possession and execution processes 31.12.2021**

		a	b
		Collateral obtained by taking possession	
		Value at initial recognition	Accumulated negative changes
1	Property Plant and Equipment (PP&E)		
2	Other than Property Plant and Equipment	601	(106)
3	Residential immovable property	253	(26)
4	Commercial Immovable property	337	(70)
5	Movable property (auto, shipping, etc.)	2	(1)
6	Equity and debt instruments	8	(8)
7	Other	1	(1)
8	<b>Total</b>	<b>601</b>	<b>(106)</b>

**Table 34: EU CQ7 - Collateral obtained by taking possession and execution processes 30.06.2021**

		a	b
		Collateral obtained by taking possession	
		Value at initial recognition	Accumulated negative changes
1	Property Plant and Equipment (PP&E)		
2	Other than Property Plant and Equipment	603	(100)
3	Residential immovable property	251	(22)
4	Commercial Immovable property	340	(69)
5	Movable property (auto, shipping, etc.)	1	(1)
6	Equity and debt instruments	8	(8)
7	Other	1	(1)
8	<b>Total</b>	<b>603</b>	<b>(100)</b>

**Table 35: EU CQ8 - Collateral obtained by taking possession and execution process - vintage breakdown 31.12.2021**

		a	b	c	d	e	f	g	h	i	j	k	l
		Debt balance reduction		Total collateral obtained by taking possession									
		Gross carrying amount	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes	Foreclosed ≤ 2 years		Foreclosed >2 years and ≤ 5 years		Foreclosed >5 years		of which non-current assets held-for-sale	
						Value at initial recogn.	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes
1	Collateral obtained by taking possession classified as Property Plant and Equipment (PP&E)												
2	Collateral obtained by taking possession other than classified Property Plant and Equipment	691	(248)	601	(106)	175	(12)	264	(19)	163	(75)	386	(58)
3	Residential immovable property	344	(113)	253	(26)	83	(1)	132	(9)	38	(16)	207	(19)
4	Commercial Immovable Property	340	(129)	337	(70)	84	(2)	130	(10)	124	(58)	178	(39)
5	Movable property (auto, shipping, etc.)	2	(1)	2	(1)			1				1	
6	Equity and debt instruments	6	(6)	8	(8)	8	(8)						
7	Other			1	(1)			1					
8	<b>Total</b>	<b>691</b>	<b>(248)</b>	<b>601</b>	<b>(106)</b>	<b>175</b>	<b>(12)</b>	<b>264</b>	<b>(19)</b>	<b>163</b>	<b>(75)</b>	<b>386</b>	<b>(58)</b>

**Table 35: EU CQ8 - Collateral obtained by taking possession and execution process - vintage breakdown 30.06.2021**

		a	b	c	d	e	f	g	h	i	j	k	l
		Debt balance reduction		Total collateral obtained by taking possession									
		Gross carrying amount	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes	Foreclosed ≤ 2 years		Foreclosed >2 years and ≤ 5 years		Foreclosed >5 years		of which non-current assets held-for-sale	
						Value at initial recogn.	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes	Value at initial recogn.	Accum. neg. changes
1	Collateral obtained by taking possession classified as PP&E												
2	Collateral obtained by taking possession other than that classified as PP&E			603	(100)	237	(11)	191	(13)	175	(76)	401	(58)
3	Residential immovable property			251	(22)	134	(1)	79	(4)	39	(16)	212	(30)
4	Commercial immovable property			340	(69)	93	(1)	111	(8)	136	(59)	188	(27)
5	Movable property (auto, shipping etc.)			1	(1)	1						1	
6	Equity and debt instruments			8	(8)	8	(8)						
7	Other			1	(1)			1					
8	<b>Total</b>			<b>603</b>	<b>(100)</b>	<b>237</b>	<b>(11)</b>	<b>191</b>	<b>(13)</b>	<b>175</b>	<b>(76)</b>	<b>401</b>	<b>(58)</b>

## 6.6 Credit risk mitigation techniques

Since 2007, NBG uses a specialized Collateral Management system, both for corporate and retail exposures. The system aims to:

- Record Bank's collaterals;
- Establish a connection between loan contract and collateral;
- Assess qualitatively all collaterals;
- Monitor collaterals' market value and estimate coverage ratio;
- Provide information regarding each and every obligor's collaterals;
- Retrieve necessary data for the estimation of capital requirements per facility;
- Automatically monitor the obligor's entire credit risk position.

The Collateral Management system provides a large number of control elements, reducing operational risk, also keeping track of all securities offered to the Bank, both those that are currently active and those that matured.

The system calculates and/or keeps the following values per collateral:

- Value as of input day;
- Current market value (for traded securities, etc.);
- Security/Guarantee value: this is lower than the Current market value by a fixed proportion which, in turn, is based on the collateral's liquidation feasibility;
- Market value, Tax value, Forced Sale value, Land and Buildings value and Construction Cost for all real estate collaterals.

In principle, NBG accepts the following credit risk mitigation types (funded and unfunded):

- Guarantees from:
  - Physical and Legal entities, both from the Private and Public Sector
  - Central governments, Regional governments, local authorities and PSEs
  - Financial institutions
  - The Greek Government and the Hellenic Development Bank (HDB)
- Pledges of
  - Securities (cheques and bills of exchange)
  - Deposits
  - Equity, Mutual funds and Non-tangible securities (bonds, etc.)
  - Claims against Central Government, Public and Private Sector Entities
  - Goods, Exported claims and Leases
  - Letters of Guarantee and Trademarks
  - Claims on Insurance Contracts
  - Claims from Credit Cards' sales
- Liens
  - On Real Estate and Ships
- Other
  - Discounting of Bills of Exchange
  - Cash
  - Receivables

Credit and Counterparty Risk exposures secured by CRR eligible credit risk mitigation instruments (collateral and guarantees) as of 31.12.2021 (in € mio) were as follows:

**Table 36 : EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques 31.12.2021**

	a	b	c	d	e
	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Of which: secured by collateral	Of which: secured by financial guarantees	Of which: secured by credit derivatives
1 Total loans	8,144	25,822	19,630	6,193	
2 Total debt securities	14,868				
<b>3 Total exposures</b>	<b>23,012</b>	<b>25,822</b>	<b>19,630</b>	<b>6,193</b>	
4 Of which non-performing exposures	133	944	746	198	
5 Of which defaulted*					

\*According to the EBA Guidelines on definition of default (EBA/GL/2016/07), in force from 1 January 2021, default is fully aligned with the NPE definition.

**Table 36 : EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques 30.06.2021**

	a	b	c	d	e
	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Of which: secured by collateral	Of which: secured by financial guarantees	Of which: secured by credit derivatives
1 Total loans	7,288	25,287	19,152	6,135	
2 Total debt securities	15,469				
<b>3 Total exposures</b>	<b>22,756</b>	<b>25,287</b>	<b>19,152</b>	<b>6,135</b>	
4 Of which non-performing exposures	178	1,711	1,347	364	
5 Of which defaulted*					

\*According to the EBA Guidelines on definition of default (EBA/GL/2016/07), in force from 1 January 2021, default is fully aligned with the NPE definition.

## 6.7 Portfolios under the Standardised Approach

External Credit Assessment Institutions (ECAI) used to risk weight exposures under the Standardised Approach are Standard & Poor's, Moody's Investors Service Ltd and Fitch Ratings Ltd. There is no process to transfer the issuer and issue credit assessments onto items not included in the trading book, as this is not applicable to NBG Group's portfolios.

The asset classes for which ECAI ratings are used are the following:

- Central Governments and Central Banks
- Regional Governments and Local Authorities
- Public Sector Entities
- Financial Institutions
- Corporate

The table on the right depicts the mapping of external credit assessments to the corresponding credit quality steps.

**Table 38: Mapping of Credit quality steps**

Fitch	Standard & Poor's	Moody's	Credit Quality Steps
From AA to AAA	From AA to AAA	From Aa1 to Aaa	1
From A to A+	From A to A+	From A1 to A3	2
From BBB to BBB+	From BBB to BBB+	From Baa1 to Baa3	3
From BB to BB+	From BB to BB+	From Ba1 to Ba3	4
From B to B+	From B to B+	From B1 to B3	5
From C to CCC+	From C to CCC+	From C1 to Caa3	6

The table below presents the Exposures (net of accounting provisions), before and after Credit Risk Mitigation (CRM), as of 31.12.2021, according to the supervisory exposure classes (amounts are in € mio):

**Table 37: EU CR4 - Standardised approach - Credit Risk Exposure and CRM effects 31.12.2021**

	a	b	c	d	e	f
Exposure classes	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs*	RWA density
Central governments or central banks	35,867	0	39,563	0	5,203	13%
Regional governments or local authorities	14	1	14	0	3	20%
Public sector entities	793	226	1,704	6	760	44%
Multilateral development banks	0	0	47	0	0	0%
International organisations	60	0	60	0	0	0%
Institutions	2,697	233	2,752	50	409	15%
Corporates	12,778	12,350	11,490	829	11,732	95%
Retail	3,516	1,857	2,887	12	1,985	68%
Secured by mortgages on immovable property	9,128	89	9,128	32	3,304	36%
Exposures in default	1,685	96	1,553	9	1,623	104%
Exposures associated with particularly high risk	365	22	365	4	553	150%
Covered bonds						
Institutions and corporates with a short-term credit assessment						
Collective investment undertakings						
Equity	336	0	336	0	727	217%
Other items	3,661	0	3,661	0	2,949	81%
<b>Total</b>	<b>70,900</b>	<b>14,875</b>	<b>73,559</b>	<b>944</b>	<b>29,249</b>	<b>39%</b>

\*Counterparty Credit Risk RWAs are included



## CREDIT RISK

Table 37: EU CR4 - Standardised approach - Credit Risk Exposure and CRM effects 30.06.2021

Exposure classes	a	b	c	d	e	f
	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs*	RWA density
Central governments or central banks	32,298	0	33,252	0	5,585	17%
Regional governments or local authorities	16	1	15	0	3	20%
Public sector entities	758	141	733	3	736	100%
Multilateral development banks	0	0	48	0	0	0%
International organisations	80	0	80	0	0	0%
Institutions	2,033	204	2,068	42	374	18%
Corporates	11,867	11,041	11,132	618	11,242	96%
Retail	3,481	1,942	2,912	13	1,993	68%
Secured by mortgages on immovable property	9,304	82	9,304	30	3,398	36%
Exposures in default	4,403	99	4,215	13	4,302	102%
Exposures associated with particularly high risk	376	20	375	4	568	150%
Covered bonds						
Institutions and corporates with a short-term credit assessment						
Collective investment undertakings						
Equity	345	0	345	0	754	219%
Other items	3,747	0	3,747	0	3,128	83%
<b>Total</b>	<b>68,707</b>	<b>13,531</b>	<b>68,225</b>	<b>725</b>	<b>32,084</b>	<b>47%</b>

\*Counterparty Credit Risk RWAs are not included

Table 39 : EU CR5 - Standardised approach 31.12.2021

Exposure classes		Risk Weight							
		0%	2%	4%	10%	20%	35%	50%	70%
1	Central governments or central banks	34,872						45	
2	Regional governments or local authorities					14			
3	Public sector entities	950							
4	Multilateral development banks	47							
5	International organisations	60							
6	Institutions	2,090				349		106	
7	Corporates								
8	Retail								
9	Secured by mortgages on immovable property						6,499	2,661	
10	Exposures in default								
11	Exposures associated with particularly high risk								
12	Covered bonds								
13	Institutions and corporates with a short-term credit assessment								
14	Collective investment undertakings								
15	Equity								
16	Other items	702				13			
17	Total	38,722				375	6,499	2,812	

\*Counterparty Credit Risk RWAs are included

## CREDIT RISK

Table 39 : EU CR5 - Standardised approach 31.12.2021 (continued)

Exposure classes	Risk Weight							Total	Of which unrated
	75%	100%	150%	250%	370%	1250%	Others		
1 Central governments or central banks		4,289		357				39,563	
2 Regional governments or local authorities								14	14
3 Public sector entities		760						1,710	1,710
4 Multilateral development banks								47	
5 International organisations								60	
6 Institutions		195	61					2,801	466
7 Corporates		11,767	552					12,319	11,562
8 Retail	2,900							2,900	
9 Secured by mortgages on immovable property								9,160	
10 Exposures in default		1,440	122					1,562	
11 Exposures associated with particularly high risk			369					369	
12 Covered bonds								0	
13 Institutions and corporates with a short-term credit assessment								0	
14 Collective investment undertakings								0	
15 Equity		75		261				336	
16 Other items		2,946						3,661	
17 Total	2,900	21,473	1,104	618				74,503	13,752

\*Counterparty Credit Risk RWAS are included

Table 39 : EU CR5 - Standardised approach 30.06.2021

Exposure classes	Risk Weight							
	0%	2%	4%	10%	20%	35%	50%	70%
1 Central governments or central banks	30,184				1		43	
2 Regional governments or local authorities					15			
3 Public sector entities								
4 Multilateral development banks	48							
5 International organisations	80							
6 Institutions	1,482	287			496		287	
7 Corporates								
8 Retail								
9 Secured by mortgages on immovable property						6,569	2,765	
10 Exposures in default								
11 Exposures associated with particularly high risk								
12 Covered bonds								
13 Institutions and corporates with a short-term credit assessment								
14 Collective investment undertakings								
15 Equity								
16 Other items	613				8			
17 Total	32,407	287			519	6,569	3,095	

## CREDIT RISK

Table 39 : EU CR5 - Standardised approach 30.06.2021 (continued)

Exposure classes	Risk Weight							Total	Of which unrated
	75%	100%	150%	250%	370%	1250%	Others		
1 Central governments or central banks		4,620		377				35,225	
2 Regional governments or local authorities								15	15
3 Public sector entities		736						736	242
4 Multilateral development banks								48	
5 International organisations								80	
6 Institutions		33	62					2,646	493
7 Corporates		11,357	500					11,857	11,200
8 Retail	2,925							2,925	
9 Secured by mortgages on immovable property								9,333	
10 Exposures in default		4,081	148					4,229	
11 Exposures associated with particularly high risk			379					379	
12 Covered bonds									
13 Institutions and corporates with a short-term credit assessment									
14 Collective investment undertakings									
15 Equity		72		273				345	
16 Other items		3,127						3,747	
17 Total	2,925	24,025	1,088	650				71,565	11,935

\*Counterparty Credit Risk exposures are not included

## COUNTERPARTY CREDIT RISK

## 7 COUNTERPARTY CREDIT RISK

Counterparty Credit Risk (CCR) for regulatory purposes mainly derives from OTC derivative and secured interbank transactions, namely repurchase agreements, and the calculations refer on both the trading portfolio and the banking book. The main contributor to CCR within NBG Group is the Bank.

The approach for the calculation of the exposure values for CRR depends on the type of transaction. For OTC and exchange-traded derivative transactions, the exposure at default (EAD) is calculated based on the SA-CCR methodology which has replaced both the Mark-to-Market Method (MtMM) and the Standardized Method.

More specifically, the EAD is calculated as the product of an alpha factor and the sum of the replacement cost (RC) and the potential future exposure (PFE), i.e.,  $EAD = \alpha * (RC + PFE)$ . The alpha factor equals 1.4 and is carried over from the alpha value set by the Basel Committee for the Internal Model Method. The RC reflects the current value adjusted for the effects of net collateral (including independent amounts, thresholds and minimum transfer amounts). The PFE add-on consists of a multiplier that allows for the partial

recognition of excess collateral or negative mark-to-market value for the transactions and an aggregate add-on which is derived from the add-ons developed for each asset class (interest rate, foreign exchange, credit, equity and commodity). Therefore, the RC is calculated at the netting set level, whereas the PFE add-ons are calculated for each asset class within a given netting set and then aggregated.

In the case of repurchase agreements, the EAD is calculated in accordance with the financial collateral comprehensive method.

In addition, the GFLRM Division calculates the capital requirements against credit valuation adjustment (CVA) risk. CVA is an adjustment to the fair value of derivative instruments to account for CCR, due to possible changes in the creditworthiness of the counterparty. The calculations only pertain to transactions with financial institutions. NBG employs the Standardized approach for the calculation of the respective capital charges, whereas the EADs are calculated in accordance with the SA-CCR framework. The components of CCR on a Group level are shown in the tables below, as of 31 December 2021.

**Table 40: EU CCR1 - Analysis of CCR exposure by approach (€ mio) 31.12.2021**

		Replacement cost (RC)	Potential Future Exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre CRM	Exposure value post CRM	Exposure value	RWEAs
EU1	EU - Original Exposure Method (for derivatives)								
EU2	EU - Simplified SA-CCR (for derivatives)								
1	SA-CCR (for derivatives)	198	146	-	1.4	4,787	481	436	292
2	IMM (for derivatives and SFTs)								
2a	Of which securities financing transactions netting sets								
2b	Of which derivatives and long settlement transactions netting sets								
2c	Of which from contractual cross-product netting sets								
3	Financial collateral simple method (for SFTs)								
4	Financial collateral comprehensive method (for SFTs)					95	65	65	20
5	VaR for SFTs								
6	<b>Total</b>					<b>4,882</b>	<b>546</b>	<b>501</b>	<b>313</b>

**Table 40: EU CCR1 - Analysis of CCR exposure by approach (€ mio) 30.06.2021**

		Replacement cost (RC)	Potential Future Exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre CRM	Exposure value post CRM	Exposure value	RWEAs
EU1	EU - Original Exposure Method (for derivatives)								
EU2	EU - Simplified SA-CCR (for derivatives)								
1	SA-CCR (for derivatives)	631	171	-	1.4	4,858	1,123	1,087	208
2	IMM (for derivatives and SFTs)								
2a	Of which securities financing transactions netting sets								
2b	Of which derivatives and long settlement transactions netting sets								
2c	Of which from contractual cross-product netting sets								
3	Financial collateral simple method (for SFTs)								
4	Financial collateral comprehensive method (for SFTs)					3,674	1,242	1,242	16
5	VaR for SFTs								
6	<b>Total</b>					<b>8,531</b>	<b>2,365</b>	<b>2,329</b>	<b>224</b>

## COUNTERPARTY CREDIT RISK

Table 41: EU CCR2 – CVA capital charge (€ mio) 31.12.2021

		Exposure value	RWEAs
1	Total transactions subject to the advanced method		
2	(i) VaR component (including the 3x multiplier)		
3	(ii) stressed VaR component (including the 3x multiplier)		
4	Transactions subject to the Standardized method	219	206
EU4	Transactions subject to the Alternative Approach (Based on the Original Exposure Method)		
5	<b>Total transactions subject to own funds requirements for CVA risk</b>	<b>219</b>	<b>206</b>

Table 41: EU CCR2 – CVA capital charge (€ mio) 30.06.2021

		Exposure value	RWEAs
1	Total transactions subject to the advanced method		
2	(i) VaR component (including the 3x multiplier)		
3	(ii) stressed VaR component (including the 3x multiplier)		
4	Transactions subject to the Standardized method	88	101
EU4	Transactions subject to the Alternative Approach (Based on the Original Exposure Method)		
5	<b>Total transactions subject to own funds requirements for CVA risk</b>	<b>88</b>	<b>101</b>

Table 42: EU CCR8 – Exposures to CCPs (€ mio) 31.12.2021

		Exposure Value	RWEAs
1	<b>Exposures to QCCPs* (total)</b>		<b>9</b>
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	322	6
3	(i) OTC derivatives	319	6
4	(ii) Exchange-traded derivatives	2	0.05
5	(iii) SFTs		
6	(iv) Netting sets where cross-product netting has been approved		
7	Segregated initial margin	1,090	
8	Non-segregated initial margin	32	0.6
9	Prefunded default fund contributions	12	2
10	Alternative calculation of own funds requirements for exposures		
11	<b>Exposures to non-QCCPs* (total)</b>		
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which		
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) SFTs		
17	Segregated initial margin		
18	Non-segregated initial margin		
19	Prefunded default fund contributions		
20	Unfunded default fund contributions		



## COUNTERPARTY CREDIT RISK

Table 42: EU CCR8 – Exposures to CCPs (€ mio) 30.06.2021

		Exposure Value	RWEAs
1	<b>Exposures to QCCPs* (total)</b>		<b>10</b>
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	264	5
3	(i) OTC derivatives	261	5
4	(ii) Exchange-traded derivatives	4	0.1
5	(iii) SFTs		
6	(iv) Netting sets where cross-product netting has been approved		
7	Segregated initial margin	1,054	
8	Non-segregated initial margin	23	0.5
9	Prefunded default fund contributions	12	4
10	Alternative calculation of own funds requirements for exposures		
11	<b>Exposures to non-QCCPs* (total)</b>		
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which		
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) SFTs		
17	Segregated initial margin		
18	Non-segregated initial margin		
19	Prefunded default fund contributions		
20	Unfunded default fund contributions		

Table 43: EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (€ mio) 31.12.2021

Exposure classes		Risk Weight											Total
		0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	
1	Central governments or central banks	23											23
2	Regional governments or local authorities												
3	Public sector entities					0							
4	Multilateral development banks												
5	International organisations												
6	Institutions		354			95	195			5	0		649
7	Corporates									168	16		
8	Retail												
9	Institutions and corporates with a short-term credit assessment												
10	Other items												
11	<b>Total</b>	<b>23</b>	<b>354</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>195</b>	<b>0</b>	<b>0</b>	<b>173</b>	<b>16</b>		<b>855</b>

Table 43: EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (€ mio) 30.06.2021

Exposure classes		Risk Weight											Total
		0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	
1	Central governments or central banks	1,973											1,973
2	Regional governments or local authorities												
3	Public sector entities												
4	Multilateral development banks												
5	International organisations												
6	Institutions		287			46	198			4	1	12	548
7	Corporates									99	8		
8	Retail												
9	Institutions and corporates with a short-term credit assessment												
10	Other items												
11	<b>Total</b>	<b>1,973</b>	<b>287</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>198</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>9</b>	<b>12</b>	<b>2,628</b>

## COUNTERPARTY CREDIT RISK

Table 44: EU CCR5 – Composition of collateral for CCR exposures (€ mio) 31.12.2021

Collateral type	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	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
1 Cash – domestic currency		744	738	2,424	2		11	
2 Cash – other currencies		226		11				
3 Domestic sovereign debt		2,250			40		779	
4 Other sovereign debt			383				525	
5 Government agency debt								
6 Corporate bonds								
7 Equity securities								
10 Other collateral								
<b>11 Total</b>		<b>3,220</b>	<b>1,120</b>	<b>2,435</b>	<b>42</b>		<b>1,315</b>	

Table 44: EU CCR5 – Composition of collateral for CCR exposures (€ mio) 30.06.2021

Collateral type	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	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
1 Cash – domestic currency	9	753	730	2,395	7		6	
2 Cash – other currencies		206		29				
3 Domestic sovereign debt		1,500			2,382		696	
4 Other sovereign debt			362		50		525	
5 Government agency debt								
6 Corporate bonds								
7 Equity securities								
10 Other collateral								
<b>11 Total</b>	<b>9</b>	<b>2,459</b>	<b>1,092</b>	<b>2,424</b>	<b>2,439</b>		<b>1,227</b>	

Table 45: EU CCR6 - Credit derivatives exposures (€ mio) 31.12.2021

	Credit derivative hedges		Other credit derivatives
	Protection bought	Protection sold	
<b>Notionals</b>			
Single-name credit default swaps	10		
Index credit default swaps			
Total return swaps			
Credit options			
Other credit derivatives			
<b>Total notionals</b>	<b>10</b>		
<b>Fair values</b>			
Positive fair value (asset)	0.05		
Negative fair value (liability)			

Table 45: EU CCR6 - Credit derivatives exposures (€ mio) 30.06.2021

	Credit derivative hedges		Other credit derivatives
	Protection bought	Protection sold	
<b>Notionals</b>			
Single-name credit default swaps	10		
Index credit default swaps			
Total return swaps			
Credit options			
Other credit derivatives			
<b>Total notionals</b>	<b>10</b>		
<b>Fair values</b>			
Positive fair value (asset)	0.1		
Negative fair value (liability)			

## 8 MARKET RISK

The Bank uses internally developed and implemented market risk models and systems to assess and quantify the portfolio market risk, based on best practice and industry-wide accepted risk metrics. More specifically, the Bank estimates the market risk of its trading and the held to collect and sell (HTCS) portfolios using the Value at Risk (VaR) methodology. In particular, the Bank has adopted the Variance-Covariance (VCV) methodology, with a 99% confidence interval and 1-day holding period.

The variance-covariance methodology can be summarised as follows:

1. Collection of transactional data per type of product;
2. Identification of "risk factors" i.e., variables whose price changes could affect the value of the portfolio. The risk factors relevant to the financial products in the Bank's portfolio are interest rates, equity indices, foreign exchange rates and commodity prices;
3. Collection of market data for instruments/positions valuation;
4. Specification of the confidence interval and the holding period for the VaR calculations at 99% and 1-day, respectively;
5. Estimation of the model's parameters:
  - the variance of each risk factor, from which respective volatilities are derived;
  - the covariance of the risk factors, from which respective correlations are derived;
  - the beta of stocks;
  - the volatility for the estimation of equity specific risk.
6. Estimation of the VaR per type of risk (interest rate risk, equity risk, foreign exchange risk);
7. Estimation of Total VaR, taking into consideration the correlation matrix among all risk factors.

The calculation of the model's parameters relies on the following statistical assumptions:

- Returns on individual risk factors follow a normal distribution
- Portfolio's payout is considered to be linear

The VaR is calculated on a daily basis for the Bank's trading and held-to-collect-and-sell (HTCS) portfolios, along with the VaR per risk type (interest rate, equity and foreign exchange risk). The VaR estimates are used internally as a risk management tool, as well as for regulatory purposes. More specifically, the GFLRM Division calculates the VaR of the Bank's trading and HTCS portfolios, for internal use, using the latest 75 exponentially weighted daily observations to construct the VCV matrices. For regulatory purposes, the calculations apply only on the trading portfolio and the VCV matrices are based on 252, equally weighted, daily observations per risk factor.

Moreover, since the Bank has approval to use an internal model approach (IMA) only for general market risk purposes, the issuer risk and the equity specific risk of the portfolio are excluded from the regulatory VaR calculations. The respective capital requirements are based on the Standardized Approach (SA).

Additionally, the GFLRM Division calculates the stressed VaR (sVaR) of the Bank's trading portfolio, which is defined as the VaR, where model inputs are calibrated to historical data from a continuous 1-year period of significant financial stress, relevant to the Bank's

portfolio. To identify this 1-year time window of significant stress, NBG follows a conservative approach, which covers the entire period from the beginning of the financial crisis of 2008. More specifically, VCV matrices dating back to the 3rd of January 2008, are calculated on a daily basis and the VCV matrix that corresponds to the maximum VaR of NBG's trading portfolio, over the entire period, is selected. To ensure consistency, at each year-end, the process is repeated for certain days of the last calendar month of the year, and subsequently the identified "stressed VCV matrix" is applied over the next year. Similarly to VaR, NBG calculates sVaR on a daily basis, using a 1-day holding period and 99% confidence level.

For the calculation of the regulatory capital requirements, the VaR/sVaR is scaled up to 10-days via the square-root-of-time rule<sup>1</sup>.

Based on the above, the capital charges for the Bank's general market risk are calculated as the sum of the following two amounts:

- the maximum of: a) the VaR of the previous day, calculated with a 10-days holding period, b) the average VaR of the last 60-days, using a 10-days holding period and multiplied by a factor (mc), determined by the regulator and varying between three (3) and four (4); plus
- the maximum of: a) the Stressed VaR of the previous day, calculated with a 10-days holding period, b) the average Stressed VaR of the last 60-days, using a 10-days holding period and multiplied by a factor (ms), determined by the regulator and varying between three (3) and four (4).

Finally, the use of internal model is granted only for NBG, therefore the calculation of market risk capital charges for the rest of the Group's subsidiaries is based on the Standardized Approach. The components of capital requirements under the standardized approach and the internal model approach for market risk, as of 31<sup>st</sup> December, 2021, are shown in the table below.

**Table 46: EU MR1 – Market risk under the Standardized approach (€ mio) 31.12.2021 and 30.06.2021**

	RWAs Q4.21	RWAs Q2.21
<b>Outright products</b>		
1 Interest rate risk (general and specific)	32	38
2 Equity risk (general and specific)	44	54
3 Foreign exchange risk	161	218
4 Commodity risk		
<b>Options</b>		
5 Simplified approach		
6 Delta-plus approach	260	253
7 Scenario approach	0.03	3
8 Securitisation (specific risk)		
<b>9 Total</b>	<b>497</b>	<b>567</b>

<sup>1</sup> 10-day VaR is obtained by multiplying the 1-day VaR with the square root of 10 (i.e.  $VaR_{10-day} = VaR_{1-day} \times \sqrt{10}$ )

## MARKET RISK

Table 47: EU MR2-A – Market risk under the IMA (€ mio) 31.12.2021

		RWAs	Own funds requirements
1	<b>VaR</b> (higher of values a and b)	<b>248</b>	<b>20</b>
(a)	Previous day's VaR (VaRt-1)		8
(b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)		20
2	<b>SVaR</b> (higher of values a and b)	<b>904</b>	<b>72</b>
(a)	Latest available SVaR (SVaRt-1)		19
(b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)		72
3	<b>IRC</b> (higher of values a and b)		
(a)	Most recent IRC measure		
(b)	12 weeks average IRC measure		
4	<b>Comprehensive risk measure</b> (higher of values a, b and c)		
(a)	Most recent risk measure of comprehensive risk measure		
(b)	12 weeks average of comprehensive risk measure		
(c)	Comprehensive risk measure Floor		
5	<b>Other</b>		
6	<b>Total</b>	<b>1,152</b>	<b>92</b>

Table 47: EU MR2-A – Market risk under the IMA (€ mio) 30.06.2021

		RWAs	Own funds requirements
1	<b>VaR</b> (higher of values a and b)	<b>170</b>	<b>14</b>
(a)	Previous day's VaR (VaRt-1)		5
(b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)		14
2	<b>SVaR</b> (higher of values a and b)	<b>812</b>	<b>65</b>
(a)	Latest available SVaR (SVaRt-1)		24
(b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)		65
3	<b>IRC</b> (higher of values a and b)		
(a)	Most recent IRC measure		
(b)	12 weeks average IRC measure		
4	<b>Comprehensive risk measure</b> (higher of values a, b and c)		
(a)	Most recent risk measure of comprehensive risk measure		
(b)	12 weeks average of comprehensive risk measure		
(c)	Comprehensive risk measure Floor		
5	<b>Other</b>		
6	<b>Total</b>	<b>982</b>	<b>79</b>

Table 48: EU MR2-B – RWA flow statements of market risk exposures under the IMA (€ mio) 31.12.2021

	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total own funds requirements
1	<b>RWAs as of September 30, 2021</b>	<b>245</b>	<b>745</b>			<b>990</b>	<b>79</b>
1a	Regulatory adjustment	184	483			666	53
1b	RWAs at the previous quarter-end (end of the day)	61	262			324	26
2	Movement in risk levels	41	(34)				
3	Model updates/changes						
4	Methodology and policy						
5	Acquisitions and disposals						
6	Foreign exchange movements						
7	Other	(4)	6				
8a	RWAs at the end of the reporting period (end of the day)	98	235			333	27
8b	Regulatory adjustment	150	669			819	66
8	<b>RWAs as of December 31, 2021</b>	<b>248</b>	<b>904</b>			<b>1,152</b>	<b>92</b>

Table 48: EU MR2-B – RWA flow statements of market risk exposures under the IMA (€ mio) 30.09.2021

	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total own funds requirements
1	<b>RWAs as of June 30, 2021</b>	<b>170</b>	<b>812</b>	-	-	<b>982</b>	<b>79</b>
1a	Regulatory adjustment	101	513	-	-	614	49
1b	RWAs at the previous quarter-end (end of the day)	68	300	-	-	368	29
2	Movement in risk levels	(5)	(16)	-	-		
3	Model updates/changes			-	-		
4	Methodology and policy			-	-		
5	Acquisitions and disposals			-	-		
6	Foreign exchange movements			-	-		
7	Other	(2)	(21)	-	-		
8a	RWAs at the end of the reporting period (end of the day)	61	262	-	-	324	26
8b	Regulatory adjustment	184	483	-	-	666	53
8	<b>RWAs as of September 30, 2021</b>	<b>245</b>	<b>745</b>	-	-	<b>990</b>	<b>79</b>

## MARKET RISK

The Market Risk RWAs, based on the Internal Model Approach (IMA), increased by 16% in Q4.2021, due to the higher VaR/sVaR multiplier. More specifically, the surge in volatility near the end of 2021, triggered by inflation pressures, resulted in a clustering of over-shootings in the back-testing process, which in turn led to the increase of the capital multiplier (from 3 to 3.5), as well as of the IMA RWAs.

Finally, the Bank's regulatory VaR/sVaR estimates during the last six months of 2021 are shown in the table below.

**Table 49: EU MR3 – IMA values for trading portfolios**  
(€ mio) 31.12.2021

VaR (10 day 99%)		
1	Maximum value	8
2	Average value	6
3	Minimum value	4
4	Period end	8
SVaR (10 day 99%)		
5	Maximum value	28
6	Average value	20
7	Minimum value	18
8	Period end	19

**Table 49: EU MR3 – IMA values for trading portfolios**  
(€ mio) 30.06.2021

VaR (10 day 99%)		
1	Maximum value	9
2	Average value	5
3	Minimum value	4
4	Period end	5
SVaR (10 day 99%)		
5	Maximum value	24
6	Average value	21
7	Minimum value	19
8	Period end	23

## 8.1 Stress testing

The daily VaR refers to "normal" market conditions. Supplementary analysis is, however, necessary for capturing the potential loss that might incur under extreme and unusual conditions in financial markets. Thus, the GFLRM Division conducts stress testing on a weekly basis, through the application of different stress scenarios on the relevant risk factors (interest rates, equity indices, foreign exchange rates). Stress testing is performed on both the Trading and the HTCS portfolios, as well as separately on the positions of the Trading Book.

The scenarios used are shown in the following table:

**Table 50: Stress test Scenarios**

Scenario	Description	0 - 3 months	3 months–5 years	> 5 years
Interest Rate Risk				
1	Parallel Curve shift	+200 bps.	+200 bps.	+200 bps.
2	Parallel Curve shift	-200 bps.	-200 bps.	-200 bps.
3	Steepening of the curve	0 bps.	+100 bps.	+200 bps.
4	Flattening of the curve	+200 bps.	+100 bps.	0 bps.
Equity Risk				
		-30% for all indices		
Foreign Exchange Risk				
		EUR depreciation by 30%/EUR appreciation by 30%		

Additionally, the following volatility stress test scenarios are defined and the Trading and HTCS P&L is assessed, on a daily basis:

**Table 51: Volatility stress test Scenarios**

Scenario	Description
1	IR: normal +1bp, lognormal +1%, EQT & FX: +1%
2	IR: normal +5bp, lognormal +5%, EQT & FX: +5%
3	IR: normal +10bp, lognormal +10%, EQT & FX: +10%
4	IR: normal -1bp, lognormal -1%, EQT & FX: -1%
5	IR: normal -5bp, lognormal -5%, EQT & FX: -5%
6	IR: normal -10bp, lognormal -10%, EQT & FX: -10%

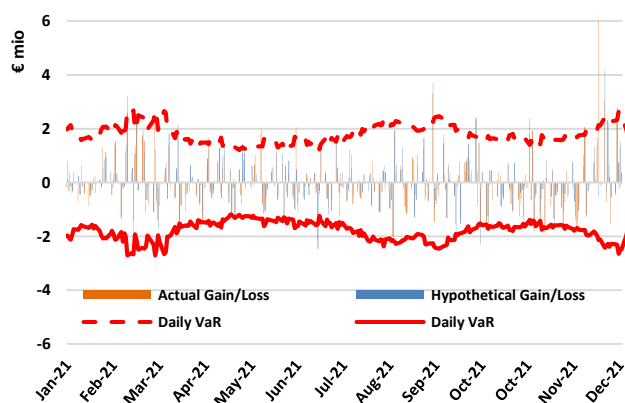


## 8.2 Back testing

In order to verify the predictive power of the VaR model used for the calculation of Market Risk capital requirements, the Bank conducts back-testing on a daily basis. In accordance with the guidelines set out in the Capital Requirements Regulation 575/2013, the calculations only refer to the Bank's trading portfolio and involve the comparison of the hypothetical as well as the actual daily gains/losses of the portfolio, with the respective estimates of the VaR model used for regulatory purposes. The hypothetical gains/losses is the change in the value of the portfolio between days  $t$  and  $t+1$ , assuming that the portfolio remains constant between the two days. In the same context, the actual gains/losses is the change in the value of the portfolio between days  $t$  and  $t+1$ , including all the transactions and/or any realized gains/losses that took place in day  $t+1$ , excluding fees, commissions and net interest income.

Any excess of the hypothetical / actual losses over the VaR estimate is reported to the regulatory authorities within five business days. The Bank's trading book is primarily exposed to interest rate risk in the Eurozone, with the key risk factors being the EUR swap rates and the respective government yields (mainly the German). The volatility in the markets in Q4.2021, caused the swap-spread to widen that subsequently led to a clustering of back-testing over-shootings. By the end of 2021, the Bank had recorded 6 VaR excesses, which in turn caused the capital multiplier, as well as the RWAs based on the internal model approach, to increase.

**Figure 7:** EU MR4 – Comparison of VaR estimates with gains/losses



## 9 OPERATIONAL RISK

The Bank has adopted the Standardized Approach (SA) for the calculation of operational risk regulatory capital requirements, on an individual, as well as on a consolidated basis. Under the Standardized Approach, the capital requirement for operational risk is the average, over three years, of the risk-weighted relevant indicators calculated each year through the allocation of Gross Income to the eight (8) regulatory business lines. Being conservative and compliant with regulatory reporting requirements, the Bank classifies revenues accrued from activities that cannot be readily mapped into a particular business line (unallocated) to the business line yielding the highest capital risk weight (18%).

**Table 52: EU OR1 – Operational Risk Own Funds requirements and risk weighted exposure amounts (€ mio) 31.12.2021**

Banking activities						
		Relevant indicator			Own funds requirements	Risk exposure amount
		Year-3	Year-2	Last year		
1	Banking activities subject to basic indicator approach (BIA)	-	-	-	-	-
2	Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches	1,467	1,732	1,492	226	2,826
3	Subject to TSA:	1,467	1,732	1,492	226	2,826
4	Subject to ASA:	-	-	-	-	-
5	Banking activities subject to advanced measurement approaches AMA	-	-	-	-	-

## 10 EQUITY EXPOSURES NOT INCLUDED IN THE TRADING BOOK

Investments in shares of stock not included in the Trading and Fair Value through Profit and Loss (FVTPL) portfolio are included in the Fair Value through Other Comprehensive Income (FVTOCI) portfolio. These investments are held with the intention of achieving capital gains. The FVTOCI investments in shares are initially recognised and subsequently measured at fair value. Initial measurement includes transaction costs. The fair value of FVTOCI investments in shares that are quoted in active markets is determined on the basis of the quoted prices. For those not quoted in an active market, fair value is determined, where possible, using valuation techniques and taking into consideration the particular facts and circumstances of the shares' issuers. The carrying amount of FVTOCI equity instruments listed on a Stock Exchange Market equals their market value. The carrying amount as of 31.12.2021 is presented below:

**Table 53: FVTOCI Equity instruments 31.12.2021**

	€ mio
Listed	60
Not Listed	26
<b>Total</b>	<b>86</b>

**Table 53: FVTOCI Equity instruments 31.12.2020**

	€ mio
Listed	42
Not Listed	34
<b>Total</b>	<b>76</b>

The total amount of realised gains from the disposal of FVTOCI equity instruments for the year 2021 was €1 mio. The net amount of unrealised loss of FVTOCI equity instruments as at 31 December 2021 was €1,5 mio after tax.

The amount of unrealised loss of FVTOCI equity instruments, recognised in reserves as at 31 December 2021 is included in Common Equity Tier 1 capital (CET1).

## 11 SECURITIZATION

### Overview

This section provides details of traditional and synthetic securitization exposures in the banking and trading book based on the Basel III securitization framework.

The Bank treats securitization transactions per the provisions of Chapter 5, Title II, Part Three of Regulation (EU) No 575/2013 of the European Parliament and the Council, of 26 June 2013, on prudential requirements for credit institutions and investment firms as amended by regulation 2401/2017, complementary regulations 2402/201 and 557/2021 regarding STS securitizations, as well as 558/2021 specifying adjustments to the securitisation framework to support the economic recovery in response to the COVID-19 crisis (hereinafter, the CRR).

An explanation of various basic concepts is given below, to make clear the content of this chapter:

- Securitization is a transaction or scheme whereby the credit risk associated with an asset or pool of assets is divided into tranches, having all the following characteristics:
  - Payments in the transaction or scheme are dependent upon the performance of the securitized asset or pool of assets.
  - The subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme.
  - Primary recourse for securitization lies with the underlying securitized financial assets.
- Tranche: a contractually established segment of the credit risk associated with an exposure or exposures, where each position in the segment entails a risk of credit loss greater than or less than a position of the same amount in each of the other segments in line with the order of payment priority outlined in the securitization, without taking into account credit protection provided by third parties directly to the holders of positions in the segment in question or other segments. To this end, every securitization position either forms part of a tranche or constitutes a tranche in itself. Therefore, different types of tranches may be distinguished and are typically the following:
  - First loss tranche (or equity tranche): this is the most subordinated tranche in a securitization. It is the first tranche to bear losses incurred on the securitized exposures and, consequently, it protects the second loss tranche and, where relevant, higher ranking tranches.
  - Intermediate risk tranche (or mezzanine tranche): this tranche has a lower ranking than the highest-ranking position in the securitization and ranks lower than any securitization position within the said agreement.
  - High priority tranche (or senior tranche): any tranche that is not a first loss tranche or an intermediate risk tranche. The 'highest priority tranche' is the tranche of the highest priority among the securitisation payments.
- Traditional securitization: securitization involving the economic transfer of the exposures being securitized to a 'securitization special purpose entity' (SSPE) that issues securities. This can be accomplished by the transfer of ownership of the securitized exposures from the originator. Securities issued by SSPEs do not represent any legally binding payment obligations for the originator institution.
- Synthetic securitization: means a securitization where the transfer of the credit risk of an asset portfolio risk is achieved

by the use of credit derivatives or guarantees (mainly Credit Default Swaps (CDS) or Financial Guarantees). In these transactions, protection sellers acquire a position equivalent to that of a direct investor in the tranche that they are securing.

- Originator institution: An entity which, by itself or through related entities, directly or indirectly, was involved in the original agreement which created the obligations or potential obligations of the obligor or potential obligor, giving rise to the securitization of the exposure.
- Investor institution: any institution or subject, different from the originator, that holds a securitization position.
- Arranger: entity responsible for designing the structure of securitization and determining credit enhancements and the different tranches of securities that will be issued. The arranger may also participate in their placing on the market.

### Objectives in relation to securitizations

As originator, the Bank may securitize financial assets (e.g. mortgage or corporate loans) in a traditional or a synthetic transaction, depending on the objectives of it. The objectives pursued through a transaction can vary from funding to the reduction of the credit risk and capital requirements or more sophisticated asset management.

Securitization offers a series of advantages in terms of liquidity and risk management, facilitating the efficient management of the balance sheet, as a tool that allows:

- Generation of liquidity: the transformation of relatively illiquid assets into marketable securities, which can allow liquidity to be gained in wholesale markets either through their sale or use as collateral.
- Diversification of sources of funding: the diversification of the sources that the Group uses to finance its activities, arising from its objective of obtaining liquidity.
- Capital management: securitizations in which there is an effective transfer of risks contribute to optimizing capital management and contribute to the generation of value.
- Asset disposals: securitizations in which large-scale asset disposals are achieved.

The Bank may securitize financial assets in a traditional or a synthetic transaction, depending on the objectives of each transaction.

The Bank considers all aspects of such transaction and makes a comprehensive judgment on the structure and its appropriateness, assessing the effects on the liquidity position, the reduction of credit risk, the cost of capital, the improvement of return on risk as well as any operational effects. Where the Bank intends to securitize assets it has originated, it ensures the terms and conditions applicable to the proposed securitization and any support facilities or dealings are arm's length and market-based and compliant with prudential regulations. Where the Bank has sold assets to an SSPE but retains a servicer role in managing those assets, the Bank ensures those securitized assets are effectively ring-fenced from the Bank's own assets per the applicable legislation.

The authorization and approval of the various governing bodies are required to realize or execute transactions.

### Risk inherent to securitizations

The risks associated with securitization activities are mainly assumed by the originator institution and/or investor institutions. Specifically, these risks are the following:

- Credit risk: the risk of borrowers being unable to honour their contractual obligations in due time and form (e.g. the non-payment of mortgage loan instalments), which leads to the impairment of the asset which is backing the issued securities. This is the main risk transferred to investors through the securities issued or the use of credit derivatives and financial guarantees.
- Prepayment risk: risk arising from the early amortization, either in full or in part, of assets that back the securitization. As a result, the actual maturity of the securities issued may be shorter than the contractual maturity of the underlying assets.
- Basis risk: the risk that arises when interest rates or the maturity schedule of securitized assets do not coincide with those of issued bonds. This risk may be covered by the originator institution using interest rate swaps.
- Commingling risk: this is the risk that affects all investors and which exists in transactions wherein the payment of interest on the underlying portfolio is not immediately transferred from the originator to the accounts of the SSPE.
- Liquidity risk: the risk that the issued securities will not be traded in the market with a frequency or volume that will enable the investor to sell positions at any given time.
- Operational risk: securitizations are subject to operational risks, associated with the inadequacy of applied processes. In any securitization, the greatest operational risk relates to the operations required to claim and settle payments of cash flows related to the structure.

### Role and involvement of the Bank

The main functions carried out by the Bank are:

- Originator: the Bank has completed various securitization programmes in which, the Bank has assigned pools of residential mortgage loans, loans to small and medium-sized enterprises (SMEs), loans to corporates, financial lease rights and personal consumer loans, to be converted into asset-backed securities.
- Servicer of securitized portfolios: the Bank also acts as the servicer of securitized assets, managing the collection of principal and interest payments as well as providing cash management services.
- Provider of financing: the Bank may act as a provider of financing associated with subordinated loans for the creation of reserve funds and for loans to fund the initial expenses incurred by SSPEs.
- Counterparty: additionally, the Bank may act as a counterparty in swaps to mitigate basis risk.

The Bank has taken on the role of the originator as well as an investor for transactions targeting the generation of liquidity.

The Bank has not carried out any synthetic securitizations or re-securitizations.

As an originator and for the purposes of CRR Article 409, in compliance with that outlined in Article 405, the Bank maintains a commitment to consistently retain in a securitization of which it is an originator, a significant net economic interest of at least 5%, which it has done by retaining at least 5% of the bonds or at least 5% of the portfolio of similar assets.

Article 248 of the CRR sets forth that originator institutions, which in respect of a securitization have made use of Article 245(1) and (2) in the calculation of risk-weighted exposure amounts, shall not, with a view to reducing potential or actual losses to investors, provide support to the securitization beyond their contractual obligations. The implicit support to which this article of the CRR refers is a concept linked to the transfer of risk and refers to a situation in which originator institutions may be providing support to a securitization beyond that contractually agreed, as a result of an actual or expected impairment in the credit quality of the portfolio used to reduce the actual or potential losses to investors.

### Accounting policies for securitization

The accounting of securitized transactions is conditional upon the extent and way in which the risks and rewards associated with the assets transferred are passed on to third parties, as outlined in applicable regulations.

Financial assets are derecognised from the balance sheet when their inherent risks and rewards have been substantially transferred to third parties, and no subordinated loans or any other type of credit enhancements of a significant amount are retained.

Securitizations that do not trigger derecognition from the balance sheet are accounted for in the following manner:

- If the transfer does not result in derecognition because NBG has retained substantially all the risks and rewards of ownership of the transferred assets, IFRS 9 requires NBG to continue to recognize the transferred assets in its entirety and recognise a financial liability for any consideration received. In subsequent periods, NBG recognises any income on the transferred assets and any expense incurred on the financial liability.
- The securitized assets are kept on the balance sheet in the same accounting portfolio before and after the transfer and, as such, no changes are applied to the valuation after securitization.

Once the derecognition criteria described above are met the difference between the consideration received (including any new assets obtained) and the carrying amount of the assets transferred represents the gain or loss from the transaction and is recognised in the income statement.

To analyse the possible consolidation of SSPEs to which the Bank transfers assets, the deciding factor is determining who controls the entity. The following are taken into account:

The first step is the performance of a detailed assessment on whether the Bank controls the Issuer, which will acquire the reference portfolio, and hence needs to consolidate it in accordance with IFRS 10.

### Design of the Transaction

In assessing the purpose and design of the Issuer, the involvement and decisions made by the Bank at the Issuer's inception as part of its design should be taken into consideration and it should be evaluated whether the transaction terms and features of the involvement provide the Bank with rights that are sufficient to give it power over the Issuer. ***Being involved in the design of the Issuer alone is not sufficient to give an investor control. However, involvement in the design may indicate that the Bank had the opportunity to obtain rights that are sufficient to give it power over the Issuer*** (IFRS 10. B51).

According to IFRS 10.6, an investor controls an investee when it is exposed, or has rights, to variable returns from its involvement with



the investee and has the ability to affect those returns through its power over the investee. *Under IFRS 10.7, control over the investee exists if and only if the investor has all the following:*

- Power over the investee;
- Exposure, or rights, to variable returns from its involvement with the investee; and
- The ability to use its power over the investee to affect the amount of the investor's returns.

An investor shall consider **all facts and circumstances** when assessing whether it controls an investee (IFRS 10.8).

An analysis is then performed considering (a), (b) and (c) above.

### Calculating risk-weighted exposures in securitization activities

The approaches used to calculate risk weighted exposure amounts in securitization activities differ in terms of the fulfilment or non-fulfilment of conditions required to assume that a significant amount of risk has been transferred, as outlined in Articles 244 and 245 of the CRR.

For securitizations in which the risk has been significantly transferred, the Bank uses either the standardized approach (SEC-SA) to calculate risk weights in accordance with CRR Article 267 or the external ratings-based approach (SEC-ERBA) to calculate risk weights according to the credit quality rating and the maturity as per CRR Article 263. The SEC-ERBA approach can only be applied for exposures with publicly available rating, which in the case of the Frontier transaction is not available.

According to CRR Article 247, and given that Frontier transaction is a traditional securitization and SRT requirements are fulfilled, the Bank can exclude the underlying exposures from its calculation of risk-weighted exposure amounts, and calculate the risk-weighted exposure amounts for the positions it holds in the securitization. The risk-weighted exposure amount of a securitization position is calculated by multiplying the exposure value of the position by the relevant total risk weight, which is determined as the sum of the risk weight set out in CRR Article 261 and any proportionate additional risk weight imposed by competent authorities due to negligence or omission by the institution in accordance with Article CRR 270a.

Where no risk has been transferred, capital requirements are calculated for the original securitized exposures, in line with the portfolio and the approach used, determined at the outset based on their characteristics.

### Project "Frontier"

On 17 December 2021, NBG completed the Frontier transaction, which involved the securitization of a portfolio of NPEs with a total gross book value of c. €6 billion as of 30 June 2020, following fulfillment of all conditions' precedent, including receipt of all necessary approvals. The portfolio consisted of secured Large Corporate, Small and Medium Enterprises ("SMEs"), Small Business Lending ("SBL"), Residential Mortgages and Consumer Loans. NBG retained 100.0% of the Senior Notes, which are guaranteed from the State under the Hellenic Asset Protection Scheme ("HAPS" – see below), selling 95.0% of the Mezzanine and Junior Notes to the consortium consisting of affiliates of Bain Capital Credit ("Bain Capital"), Fortress Investment Group and doValue Greece.

The Bank has also serviced the portfolio on behalf of the noteholders for the period between 17 December 2021 and 4 February 2022,

when the migration of the portfolio to the long-term servicer (doValue Greece) took place.

### Project "Frontier II"

In the context of deleveraging its NPEs through inorganic actions and according to its NPE Divestment Policy, NBG decided the disposal of a portfolio of Greek NPEs in the form of a rated securitization under the project name "Frontier II", which aims to utilize the provisions of HAPS. The Frontier II perimeter stands at c.€1 billion, in terms of gross book value. The portfolio consists of predominantly secured Residential Mortgage loans, Large Corporate, Small and Medium Enterprises ("SMEs"), Small Business Lending ("SBL") and Consumer loans. The transaction is estimated to be completed within the 3rd quarter of 2022.

### Hellenic Republic Asset Protection Scheme

In December 2019, the Greek parliament voted for the creation of an Asset Protection Scheme ("APS") (Greek Law 4649/2019) also known as the "Hercules Scheme". The Hercules Scheme will support banks on deleveraging NPEs through securitisation, with the aim of obtaining greater market stability. The participation in the Hercules Scheme is voluntary and open to all Greek banks and it does not constitute state aid as guarantees are priced on market terms.

Under the Hercules Scheme, the Hellenic Republic will provide guarantees up to €12.0 billion on the senior bonds of securitizations of NPEs. The Hercules Scheme will become effective only when the originator has sold at least 50% plus one of junior tranches (and mezzanine if any) and the notes are of such amount that allows the derecognition and the Significant Risk Transfer ("SRT") of the securitized receivables.

Moreover, in July 2021, following the approval from the Directorate General for the Competition of the European Commission (the "DG Competition") on 9 April 2021 and based on the Greek Law 4818/2021, the "Hercules" Scheme (named also as "Hercules II") was extended by 18 months, with no material changes in terms.

## SECURITISATION

Table 54: EU SEC1 - Securitisation exposures in the non-trading book (€ mio) 31.12.2021

	Institution acts as originator					Institution acts as sponsor					Institution acts as investor		
	Traditional		Synthetic		Sub-total	Traditional		Synthetic		Sub-total	Traditional		Synthetic
	STS	Non-STS	of which SRT	of which SRT		STS	Non-STS				STS	Non-STS	
<b>1 Total exposures</b>		<b>6.3</b>		<b>6.3</b>	<b>6.3</b>								
2 Retail (total)		6.3		6.3	6.3								
3 residential mortgage		6.3		6.3	6.3								
4 credit card													
5 other retail exposures													
6 re-securitisation													
7 Wholesale (total)													
8 loans to corporates													
9 commercial mortgage													
10 lease and receivables													
11 other wholesale													
12 re-securitisation													

Table 55: EU SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor (€ mio) 31.12.2021

	Exposure values (by RW bands/deductions)				Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC- IRBA (including IAA)	SEC-SA	1250% RW/ deductions	SEC- IRBA (including IAA)	SEC-SA	1250% RW/ deductions	SEC- IRBA (including IAA)	SEC-SA	1250% RW/ deductions	SEC- IRBA (including IAA)	SEC-SA
<b>1 Total exposures</b>				<b>6.3</b>			<b>6.3</b>			<b>73.2</b>			<b>5.8</b>			
2 Traditional transactions				6.3			6.3			73.2			5.8			
3 Securitisation				6.3			6.3			73.2			5.8			
4 Retail				6.3			6.3			73.2			5.8			
5 Of which STS																
6 Wholesale																
7 Of which STS																
8 Re-securitisation																
9 Synthetic transactions																
10 Securitisation																
11 Retail underlying																
12 Wholesale																
13 Re-securitisation																

Table 56: EU SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments (€ mio) 31.12.2021

Exposures securitised by the institution - Institution acts as originator or as sponsor			
	Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
	Of which exposures in default		
<b>1 Total exposures</b>	<b>5,900</b>	<b>5,296</b>	
2 Retail (total)	5,900	5,296	
3 residential mortgage	5,900	5,296	
4 credit card			
5 other retail exposures			
6 re-securitisation			
7 Wholesale (total)			
8 loans to corporates			
9 commercial mortgage			
10 lease and receivables			
11 other wholesale			
12 re-securitisation			

## 12 INTEREST RATE RISK IN THE BANKING BOOK

Interest Rate Risk in the Banking Book (IRRBB) concerns potential losses on the Bank's earnings (Net Interest Income – NII) and on the net present value of assets and liabilities (Economic Value of Equity – EVE) arising from changes in interest rates.

The main sources of IRRBB are the following:

- **Repricing risk:** it arises from timing differences in the maturity (for fixed-rate) and repricing (for floating-rate) of the Group's assets, liabilities and off balance-sheet positions, which can expose the Group's income and underlying economic value to adverse interest rate fluctuations;
- **Basis risk:** it arises from imperfect correlation in the adjustment of the rates earned and paid on different instruments with otherwise similar repricing characteristics;
- **Optionality risk:** it occurs when a bank's customer or counterparty has the right, but not the obligation, to buy, sell, or in some manner alter the quantity and / or the timing of cash flows of an instrument or financial contract;
- **Credit Spread Risk in the Banking Book (CSRBB):** the risk driven by changes in the market perception about the price of credit risk, liquidity premium and potentially other components of credit-risky instruments, which is not explained by IRRBB.

On a regular basis the Bank measures the effect of adverse movements in interest rates on the Net Interest Income and the Economic Value of Equity measures by applying a number of specified interest rate scenarios (parallel shifts, flattening and steepening of the interest rate curves).

The Bank has recently upgraded its IRRBB measurement capabilities, through the implementation of a new IRRBB framework, under which all relevant risk metrics are calculated using a full revaluation approach, based on the exact repricing and amortization characteristics of individual positions.

The main assumptions made for the calculation of the interest rate risk in the banking book are the following:

- **Saving and Current Accounts:** maturity is estimated based on a behavioural model of the maturity and repricing characteristics of deposits without specific maturity. The deposits' model was developed internally and is calibrated annually to the Bank's data, reflecting NBG's customer base and business model. The model predicts a 20% pass-through rate on average for the calculation of the NII changes and an average duration of 2.5 years, taking into account the Regulatory cap imposed for such deposits, which is equivalent to 5 years;
- **Mortgages:** prepayment risk options have not been taken into account;
- **Non-performing loans:** interest rate sensitivity is estimated based on their recovery value, in line with the Bank's provisions' modelling.

It should be noted that:

- the sensitivity of the interest income is measured on the basis of an instantaneous shock in the interest rate curve which is subsequently kept constant over a period of 12 months, assuming a constant balance sheet, i.e., new business assumptions affecting potentially the mix of asset and liabilities are not considered;
- the sensitivity of the Economic Value of Equity is measured across the full maturity spectrum of the bank's assets and liabilities, assuming that matured transactions are not replenished.

The sensitivity of the Group's EVE and NII measures as of 31 December 2021, under the standard regulatory stress scenarios introduced by EBA's latest IRRBB Management Guidelines (EBA/GL/2018/02 – 19 July 2018) are presented in the following table. Furthermore, the comparison of NII and EVE sensitivities between 2021 and 2020 year-end is presented in Table 58.

**Table 57: Sensitivity of EVE and NII measures 31.12.2021**

Scenario	EVE					NII				
	EUR	USD	GBP	Other Currencies	Total	EUR	USD	GBP	Other Currencies	Total
Parallel up	1,980	49	3	13	2,044	345	22	(1)	(6)	360
Parallel down	2,038	(11)	(4)	(10)	2,013	(100)	(8)	0	1	(107)
Steeper	177	3	(1)	(4)	175					
Flattener	466	15	1	7	488					
Short rates up	810	33	2	11	856					
Short rates down	(556)	(14)	(3)	(9)	(580)					
Maximum					(580)					(107)

**Table 57: Sensitivity of EVE and NII measures 31.12.2020**

Scenario	EVE					NII				
	EUR	USD	GBP	Other Currencies	Total	EUR	USD	GBP	Other Currencies	Total
Parallel up	1,181	39	14	11	1,245	127	19	9	(5)	151
Parallel down	2,121	16	(6)	(6)	2,125	(65)	(5)	(4)	0	(74)
Steeper	(46)	6	(5)	(3)	(49)					
Flattener	1,168	15	8	6	1,197					
Short rates up	546	27	12	10	594					
Short rates down	(127)	9	(6)	(6)	(129)					
Maximum					(129)					(74)

## INTEREST RATE IN THE BANKING BOOK

The reduction in the economic value under the six regulatory scenarios presented below remained well within the limits set by the prevailing Regulatory provisions (EVE sensitivity does not exceed both 15% CET1 Capital and 20% of the Regulatory Capital). Finally, the year-end results comparison show an increase in EVE sensitivity, amidst an increasing interest rates environment and not due to material changes in the balance sheet composition.

**Table 58:** Comparison of EVE and NII sensitivity measures between 31.12.2021 and 31.12.2020

Scenario	EVE		NII	
	Dec 31 <sup>st</sup> , 2021	Dec 31 <sup>st</sup> , 2020	Dec 31 <sup>st</sup> , 2021	Dec 31 <sup>st</sup> , 2020
Parallel up	2,044	1,245	360	151
Parallel down	2,013	2,145	(107)	(74)
Steepener	175	(49)		
Flattener	488	1,197		
Short rates up	856	594		
Short rates down	(580)	(129)		
Maximum	(580)	(129)		
CET1 Capital (€ mio)	5,853	5,684		
Δ(EVE) Ratio	9.92%	2.28%		

## 13 LIQUIDITY RISK

Liquidity Risk is defined as the risk arising from the institution's inability to meet its liabilities when they come due without incurring unacceptable losses.

It reflects the potential mismatch between incoming and outgoing payments, taking into account unexpected delays in repayments (term liquidity risk) or unexpectedly high outflows (withdrawal/call risk). Liquidity risk involves both the risk of unexpected increases in the cost of funding of the portfolio of assets at appropriate maturities and rates, and the risk of being unable to liquidate a position in a timely manner and on reasonable terms.

The Bank's executive and senior management has the responsibility to implement the liquidity risk strategy approved by the Board Risk Committee (BRC) and to develop the policies, methodologies and procedures for identifying, measuring, monitoring and controlling liquidity risk, consistent with the nature and complexity of the relevant activities. The Bank's executive and senior management is informed about current liquidity risk exposures, on a daily basis, ensuring that the Group's liquidity risk profile stays within the approved levels.

In addition, top management receives, on a daily basis, a liquidity report which presents a detailed analysis of the Group's funding sources, the liquidity buffer, the cost of funding and other liquidity metrics related to the Risk Appetite Framework (RAF), the Recovery Plan (RP) and the Contingency Funding Plan. Moreover, the Asset Liability Committee (ALCO) monitors the gap in maturities between assets and liabilities, as well as the Bank's funding requirements based on various assumptions, including conditions that might have an adverse impact on the Bank's ability to liquidate investments and trading positions and its ability to access the capital markets.

Since liquidity risk management seeks to ensure that the respective risk of the Group is measured properly and is maintained within acceptable levels then, even under adverse conditions, the Group must have access to funds necessary to cover customer needs, maturing liabilities and other capital needs, while simultaneously maintaining the appropriate liquidity buffer to ensure the above. In addition to the Bank's liquidity buffer, the rest of the Group's subsidiaries maintain an adequate liquidity buffer, well above 10% of their total deposits, which ensures their funding self-sufficiency in case of a local crisis.

### Liquidity Developments in Q4 2021

During the fourth quarter of 2021, NBG's liquidity position remained robust and was representative of a healthy balance sheet, which was further strengthened by the completion of the Frontier securitization, significantly improving the quality of its asset side. Regarding liabilities, the balance sheet was also strengthened by the continuous growth of the customer deposits.

Moreover, LCR and NSFR, as well as the Bank's liquidity buffer currently stand at the highest historical levels, while cost of funding has decreased to below zero, the lowest historical cost.

### Sources of liquidity

The Bank's principal sources of liquidity are its deposit base, Eurosystem funding currently via the TLTROs with ECB, repurchase agreements (repos) with major FIs and wholesale funding through the placement of the senior unsecured issuance, as well as the Tier II notes. ECB funding and repos with FIs are collateralized by high quality liquid assets, such as EU sovereign bonds, Greek government

bonds and T-Bills, as well as by other assets, such as highly rated corporate loans and covered bonds issued by the Bank.

Following a remarkable year for the Bank's liquidity in 2020, despite the Covid-19 pandemic and its unprecedented consequences in the financial markets and social life, the year 2021 further strengthened the Bank's strong liquidity profile. On 31 December 2021, the Bank's customer deposits stood at €51.9 billion, and the most stable deposit class, the savings deposits increased by €1.3 billion compared to 30 September 2021.

Additionally, both the LCR and the NSFR, remained strong and were steadily increasing during 2021, driven by the significant increase of customer deposits. More specifically, the Bank's LCR remained significantly above the regulatory and internal limits, at all times, and on 31 December 2021 stood at 229.3% (Group 241.9%). Moreover, the Bank's NSFR steadily improved during 2021 and, with the application of the new CRR II framework, reached its highest historical level on 31 December 2021 of 133.5% (Group 134.6%).

In addition, NBG's secured interbank transactions amounted to €1.2 billion, on 31 December 2021. Furthermore, NBG continued to benefit from ECB's temporary liquidity measures and the Bank's participation to the favourable ECB Funding remained at €11.6 billion, consisting exclusively of TLTROs. Loan-to-Deposit ratio stood at 56.9% and 56.1% as of 31 December 2021, on a domestic (Greece) and on a Group level, respectively.

The Bank's funding cost stood at the historically low level of -2 bps as of 31 December 2021 in line with the increase of low-cost savings deposits, as well as the favorable terms of the TLTROs.

Finally, the Bank's ample liquidity buffer, which stood at €24.5 billion as at 31 December 2021, increased by €2.2 billion compared to the respective figure as of 30 September 2021. More specifically, it comprises of €15.2 billion in the form of cash deposited with the Bank of Greece and other cash deposited in Nostro accounts, €4.4 billion of collateral eligible for ECB funding and €4.9 billion of unencumbered tradable collateral that could be used for secured interbank funding with FIs.

The next tables present the key components of NBG's LCR and NSFR, as per the respective guidelines on LCR and NSFR disclosure (EBA/ITS/2020/04).

### Strategies and processes in the management of the liquidity risk

NBG Group has established a robust liquidity risk management framework, which is primarily outlined in the Liquidity Risk Management Policy and is further augmented by the Contingency Funding Plan ("CFP") and the Asset Encumbrance Policy. The liquidity policy is designed with an aim to be aligned with NBG Group Risk Strategy and to meet all the requirements set by the European Commission, the European Central Bank and the Bank of Greece.

Moreover, via the Funding Plan, NBG Group explores its capacity to execute planned actions which affect funding, achieving, in the medium to long run, sustainable funding structures that support the planned growth in the Asset side.

### Structure and organisation of the liquidity risk management function

NBG manages, monitors and measures liquidity risk through the Corporate Treasury and the Capital Markets and Structured Finance ("CMSF") that report to the Group Treasurer, and the Risk Management Unit (Financial & Liquidity Risk Management Division) that reports to the CRO.



### Degree of centralisation of liquidity management and interaction between the group's units

NBG follows a centralized liquidity risk governance model and the body in charge of liquidity management is the Group Treasury, which is responsible for coordinating access to the capital markets in order to fulfill the liquidity needs of the Group.

### Scope and nature of liquidity risk reporting and measurement systems

NBG has completed a pivotal infrastructure project, which was the in-house IT liquidity platform. This module enables NBG to fully automate, integrate and seamlessly produce the full set of internal and regulatory liquidity reporting, and stress testing, thus optimizing the monitoring and management of liquidity risk, which proved extremely useful during the pandemic crisis.

Furthermore, the database of the liquidity platform has been complemented with a large set of historical data, which has further enhanced historical analysis capabilities, targeting to support liquidity stress testing exercises.

### Policies for hedging and mitigating the liquidity risk and strategies and processes for monitoring the continuing effectiveness of hedges and mitigants

In the Liquidity Risk Management Policy, it is analyzed how the Bank manages all Liquidity Risk types. Specifically, with regard to the managing of intraday liquidity, the Bank's dedicated unit of the Treasury Division (the MM Desk) closely monitors all intraday positions and ensures that any gap in the Central Bank's current account can be mitigated through the available counterbalancing capacity.

### Outline of the bank's contingency funding plans

The Contingency Funding Plan ("CFP") is a dedicated document of the Bank, which discusses its governance and corrective actions and measures to be taken in case of a liquidity emergency and which is periodically updated, if required, in order to ensure its effectiveness.

Based on the CFP, NBG monitors a set of relevant indicators and metrics that could potentially trigger the CFP activation discussion at the ALCO level.

Upon the activation of the CFP, the Group ALCO will prepare and approve (in co-operation with the subsidiary ALCO, in case of a liquidity crisis in a subsidiary) a crisis-specific Action Plan, which adheres to all local regulatory requirements. It should be noted that, given the liquidity contingency state of the Greek market over the previous years, the actions included in the CFP Action Plan have essentially been tested for their effectiveness in a real life environment and have been deemed as successful, since they have allowed NBG to continue to operate, despite the adverse circumstances encountered.

### Use of stress testing

Liquidity stress tests allow the Bank to assess the potential impact of exceptional but plausible stress scenarios on its liquidity position. The results of the stress tests help the Bank to assess the adequacy of its liquidity buffer against potential adverse shocks. Stress testing is conducted on a regular basis, while the Bank has the ability to also perform it on an ad-hoc basis. Results are reviewed by senior management and reported to the BRC & ALCO, when deemed necessary. The short-term stress testing is carried out over both a 3-month and a 6-month time horizon, as "survival" over these tenors, is considered relevant by the Bank in the current liquidity context of the Greek market.

Additionally, other ad-hoc short-term stress test exercises, in order to examine specific extraordinary events, such as the one pertinent to the COVID-19 crisis, may be conducted, when deemed necessary.

Furthermore, a long-term stress test over a 3-year horizon is conducted based on a baseline scenario (Business Plan) and an adverse macroeconomic scenario, designed by the Economic Analysis Unit.

### Adequacy of liquidity risk management arrangements

In the context of the ILAAP & Liquidity SREP assessment of NBG, the Single Supervisory Mechanism ("SSM") stated:

"During monitoring of the COVID-19 crisis, NBG demonstrated its strong capability to produce daily analytically reporting leveraging on its IT liquidity-related infrastructure". This statement best proves the adequacy and efficiency of NBG's liquidity risk management systems.

### Institution's overall liquidity risk profile associated with the business strategy

The Bank's current liquidity state is quite strong, as it is outlined by the historically high level at which the Basel III regulatory liquidity metrics stand, well above their respective risk tolerance limits in the context of the Risk Appetite Framework. The overall risk profile of NBG also encompasses the maintenance of a very comfortable liquidity buffer, a steadily increasing deposit base and historically low cost of funding further supported by ECB's accommodative policy. More specifically, the Group's risk appetite, regarding its liquidity position, is summarized in the following statements, expressed in the current Risk Appetite Framework:

- "NBG aims to promote self-funded growth, through preserving a stable funding mix, mainly comprised of customer deposits at a sustainable rate."
- "NBG targets to always preserve the LCR well above minimum regulatory level and also maintain an adequate liquidity buffer going forward."
- "NBG aims to preserve the NSFR level above minimum regulatory levels and extend the average tenor of its liabilities in alignment to its Business Plan, in order to enhance its longer-term available funding."

### Customised measurement tools or metrics

In order to effectively monitor liquidity risk, the Bank has introduced a set of metrics along with specific related limits, in the current Risk Appetite Framework. Except for the RAF limits on Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), the Bank should also maintain its Liquidity Buffer, which stands at the highest historical level of €24.5 billion as of 31 December 2021, well above the risk tolerance limit of €6.5 billion.

### Liquidity exposures and funding needs at the level of individual legal entities, foreign branches and subsidiaries

The Group's subsidiaries maintain an adequate liquidity buffer, well above 10% of their total deposits, which ensures their funding self-sufficiency in case of a local crisis.

## LIQUIDITY RISK

Table 59: EU LIQ1 - Quantitative Information of Liquidity Coverage Ratio 2021

€ mio	Total unweighted value				Total weighted value			
Quarter ending on	31.03.21	30.06.21	30.09.21	31.12.21	31.03.21	30.06.21	30.09.21	31.12.21
Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
<b>HIGH-QUALITY LIQUID ASSETS</b>								
1 <b>Total high-quality liquid assets</b>					<b>16,909</b>	<b>18,511</b>	<b>19,960</b>	<b>21,203</b>
<b>CASH-OUTFLOWS</b>								
2 Retail deposits and deposits from small business customers, of which:	<b>28,183</b>	<b>29,384</b>	<b>30,756</b>	<b>31,968</b>	<b>1,626</b>	<b>1,696</b>	<b>1,778</b>	<b>1,853</b>
3 <i>Stable deposits</i>	25,101	26,159	27,340	28,363	1,255	1,308	1,367	1,418
4 <i>Less stable deposits</i>	3,082	3,226	3,416	3,606	371	388	411	435
5 Unsecured wholesale funding	<b>10,759</b>	<b>11,153</b>	<b>11,576</b>	<b>12,060</b>	<b>4,531</b>	<b>4,694</b>	<b>4,893</b>	<b>5,085</b>
6 <i>Operational deposits (all counterparties) and deposits in networks of cooperative banks</i>								
7 <i>Non-operational deposits (all counterparties)</i>	10,759	11,153	11,576	12,060	4,531	4,694	4,893	5,085
9 Secured wholesale funding								
10 Additional requirements	<b>1,154</b>	<b>1,155</b>	<b>1,156</b>	<b>1,156</b>	<b>1,154</b>	<b>1,155</b>	<b>1,156</b>	<b>1,156</b>
11 <i>Outflows related to derivative exposures and other collateral requirements</i>	1,154	1,155	1,156	1,156	1,154	1,155	1,156	1,156
13 <i>Credit and liquidity facilities</i>								
14 Other contractual funding obligations	<b>626</b>	<b>586</b>	<b>525</b>	<b>547</b>	<b>606</b>	<b>567</b>	<b>507</b>	<b>528</b>
15 Other contingent funding obligations	<b>8,769</b>	<b>8,675</b>	<b>8,878</b>	<b>9,186</b>	<b>498</b>	<b>493</b>	<b>506</b>	<b>525</b>
16 <b>TOTAL CASH OUTFLOWS</b>					<b>8,416</b>	<b>8,604</b>	<b>8,840</b>	<b>9,147</b>
<b>CASH-INFLOWS</b>								
18 Inflows from fully performing exposures	561	644	686	686	433	499	539	556
19 Other cash inflows	140	199	215	205	137	196	212	202
20 <b>TOTAL CASH INFLOWS</b>	<b>701</b>	<b>843</b>	<b>901</b>	<b>891</b>	<b>570</b>	<b>694</b>	<b>751</b>	<b>759</b>
EU-20c <i>Inflows Subject to 75% Cap</i>	701	843	901	891	570	694	751	759
<b>TOTAL ADJUSTED VALUE</b>								
21 <b>LIQUIDITY BUFFER</b>					<b>16,909</b>	<b>18,511</b>	<b>19,960</b>	<b>21,203</b>
22 <b>TOTAL NET CASH OUTFLOWS</b>					<b>7,846</b>	<b>7,910</b>	<b>8,089</b>	<b>8,389</b>
23 <b>LIQUIDITY COVERAGE RATIO (%)</b>					<b>215.5</b>	<b>234.0</b>	<b>246.5</b>	<b>252.9</b>

## LIQUIDITY RISK

Table 59: EU LIQ1 – Quantitative Information of Liquidity Coverage Ratio 2020

€ mio	Total unweighted value				Total weighted value			
Quarter ending on	31.03.20	30.06.20	30.09.20	31.12.20	31.03.20	30.06.20	30.09.20	31.12.20
Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
HIGH-QUALITY LIQUID ASSETS								
1 Total high-quality liquid assets					12,089	13,153	14,330	15,444
CASH-OUTFLOWS								
2 Retail deposits and deposits from small business customers, of which:	25,016	25,581	26,123	26,994	1,447	1,479	1,509	1,558
3 Stable deposits	22,247	22,760	23,261	24,050	1,112	1,138	1,163	1,203
4 Less stable deposits	2,768	2,821	2,862	2,944	335	341	346	355
5 Unsecured wholesale funding	10,729	10,602	10,604	10,779	4,577	4,527	4,512	4,561
6 Operational deposits (all counterparties) and deposits in networks of cooperative banks								
7 Non-operational deposits (all counterparties)	10,729	10,602	10,604	10,779	4,577	4,527	4,512	4,561
9 Secured wholesale funding					20			
10 Additional requirements	303	574	818	1,051	312	574	818	1,051
11 Outflows related to derivative exposures and other collateral requirements	303	574	818	1,051	312	574	818	1,051
13 Credit and liquidity facilities								
14 Other contractual funding obligations	598	623	682	626	583	608	665	608
15 Other contingent funding obligations	6,894	8,998	8,998	8,998	455	511	511	511
16 TOTAL CASH OUTFLOWS					7,394	7,699	8,014	8,289
CASH-INFLOWS								
18 Inflows from fully performing exposures	751	645	589	565	615	534	472	436
19 Other cash inflows	200	160	144	140	177	157	141	137
20 TOTAL CASH INFLOWS	951	805	733	705	792	692	613	573
EU-20c Inflows Subject to 75% Cap	951	805	733	705	792	692	613	573
					TOTAL ADJUSTED VALUE			
21 LIQUIDITY BUFFER					12,089	13,153	14,330	15,444
22 TOTAL NET CASH OUTFLOWS					6,602	7,008	7,401	7,716
23 LIQUIDITY COVERAGE RATIO (%)					183.1	187.7	193.6	200.2

#### Explanations on the main drivers of LCR results and the evolution of the contribution of inputs to the LCR's calculation over time

It is evident from the following tables that the Bank's LCR has been steadily increasing over the last three years, reflecting the continuous improvement of NBG's liquidity profile during this period. The key drivers for its significant improvement during the year of 2021, were the significant increase of stable retail deposits, as well as the introduction of the new Additional Credit Claims (ACC) framework by the Bank of Greece and ECB, based on which, a significant amount of additional credit claims were accepted as eligible collateral for Eurosystem funding operations, further expanding the Bank's ECB eligible collateral.

#### Explanations on the changes in the LCR over time

LCR level followed an upward trend over time, as unencumbered HQLAs significantly increased, in line with the growth of deposits, and the introduction of the Additional Credit Claims framework.

#### Explanations on the actual concentration of funding sources

NBG's high concentration on the stable long-term funding, through the cheaper TLTRO III ECB's refinancing operations, aims exclusively to maintain the Bank's funding cost at historically low levels.

#### High-level description of the composition of the institution's liquidity buffer

The Bank's robust liquidity buffer is composed of cash mainly deposited with the Bank of Greece, collateral eligible for funding with the ECB and unencumbered tradable collateral that could be used for secured funding with Financial Institutions.

#### Derivative exposures and potential collateral calls

The Bank's derivatives portfolio is mostly used for hedging purposes. The risk associated with additional cash collateral, which the Bank could potentially post for margin calls, is captured in the LCR calculation through the input "Additional requirements" and it could also be comfortably mitigated by its robust liquidity buffer.

#### Currency mismatch in the LCR

The Currency mismatch risk of the Bank is low as the largest part of NBG's assets are denominated in EUR and therefore EUR is considered the only material currency for the LCR calculation.

There are no other items in the LCR calculation that are not captured in the LCR disclosure template but that the institution considers relevant for its liquidity profile.

## LIQUIDITY RISK

Table 60: EU LIQ2 - Net Stable Funding Ratio 31.12.2021

€ mio		Unweighted value by residual maturity				Weighted value
		No maturity	< 6m	6m to < 1yr	≥ 1yr	
Available stable funding (ASF) Items						
1	Capital items and instruments	4,893	0	0	399	5,291
2	Own funds	4,893	0	0	399	5,291
3	Other capital instruments	0	0	0	0	0
4	Retail deposits	0	37,607	1,853	294	37,544
5	Stable deposits	0	33,101	1,615	244	33,224
6	Less stable deposits	0	4,505	239	50	4,320
7	Wholesale funding:	0	14,759	1,510	11,642	18,737
8	Operational deposits	0	0	0	0	0
9	Other wholesale funding	0	14,759	1,510	11,642	18,737
10	Interdependent liabilities	0	0	0	0	0
11	Other liabilities:	0	2,566	0	0	0
12	NSFR derivative liabilities	0				
13	All other liabilities and capital instruments not included in the above categories		2,566	0	0	0
14	TOTAL AVAILABLE STABLE FUNDING (ASF)					61,572
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)	0	0	0	0	7,298
EU-15a	Assets encumbered for more than 12m in cover pool	0	0	0	0	0
16	Deposits held at other financial institutions for operational purposes	0	0	0	0	0
17	Performing loans and securities:	0	4,651	2,301	25,595	26,230
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut	0	30	0	0	0
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions	0	1,406	6	364	508
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:	0	2,811	2,018	14,239	15,417
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	0	0	0	0	0
22	Performing residential mortgages, of which:	0	334	241	7,216	7,044
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk	0	0	0	0	0
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products	0	70	36	3,775	3,262
25	Interdependent assets	0	0	0	0	0
26	Other assets:	0	4,146	0	10,738	11,858
27	Physical traded commodities	0	0	0	0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	0	1,182	0	0	1,004
29	NSFR derivative assets	0	0	0	0	0
30	NSFR derivative liabilities before deduction of variation margin posted	0	2,317	0	0	116
31	All other assets not included in the above categories	0	647	0	10,738	10,738
32	Off-balance sheet items	0	0	0	3,601	360
33	TOTAL REQUIRED STABLE FUNDING (RSF)					45,746
34	NET STABLE FUNDING RATIO (%)					134.6

## LIQUIDITY RISK

Table 60: EU LIQ2 - Net Stable Funding Ratio 30.06.2021

€ mio		Unweighted value by residual maturity				Weighted value
		No maturity	< 6m	6m to < 1yr	≥ 1yr	
Available stable funding (ASF) Items						
1	Capital items and instruments	4,974	0	0	349	5,323
2	Own funds	4,974	0	0	349	5,323
3	Other capital instruments		0	0	0	0
4	Retail deposits		36,165	1,713	549	36,316
5	Stable deposits		32,052	1,501	474	32,349
6	Less stable deposits		4,113	212	75	3,967
7	Wholesale funding:		14,188	0	13,010	19,046
8	Operational deposits		0	0	0	0
9	Other wholesale funding		14,188	0	13,010	19,046
10	Interdependent liabilities		0	0	0	0
11	Other liabilities:	0	2,833	0	0	0
12	NSFR derivative liabilities	0				
13	All other liabilities and capital instruments not included in the above categories		2,833	0	0	0
14	TOTAL AVAILABLE STABLE FUNDING (ASF)					60,685
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)		0	0	0	7,998
EU-15a	Assets encumbered for more than 12m in cover pool		0	0	0	0
16	Deposits held at other financial institutions for operational purposes		0	0	0	0
17	Performing loans and securities:		8,137	2,194	22,759	23,840
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut		3,633	0	0	0
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions		955	6	181	279
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:		2,994	1,856	13,739	14,943
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		0	0	0	0
22	Performing residential mortgages, of which:		491	262	8,421	8,196
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		0	0	0	0
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products		64	70	417	422
25	Interdependent assets		0	0	0	0
26	Other assets:		4,149	0	12,071	13,159
27	Physical traded commodities		0	0	0	0
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		1,139			968
29	NSFR derivative assets		0			0
30	NSFR derivative liabilities before deduction of variation margin posted		2,397			120
31	All other assets not included in the above categories		612	0	12,071	12,071
32	Off-balance sheet items		0	0	2,380	238
33	TOTAL REQUIRED STABLE FUNDING (RSF)					45,235
34	NET STABLE FUNDING RATIO (%)					134.2



## 14 ASSET ENCUMBRANCE

### 14.1 Information on importance of encumbrance

The following is the disclosure for the year ended 31 December 2021, of on-balance sheet encumbered and unencumbered assets, and off-balance sheet collateral based on median values (median of the quarterly values reported by the NBG Group), as required by Part Eight of CRD IV.

**Table 61: EU AE1 - Encumbered and unencumbered assets 31.12.2021**

€ mio	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
	010	030	040	050	060	080	090	100
<b>010 Assets of the reporting institution</b>	<b>25,827</b>	<b>9,391</b>			<b>52,285</b>	<b>5,793</b>		
030 Equity instruments					167			
040 Debt securities	9,391	9,391	9,614	9,614	6,425	5,793	6,515	5,879
050 of which: covered bonds								
060 of which: asset-backed securities								
070 of which: issued by general governments	9,379	9,379	9,602	9,602	6,084	5,777	6,170	5,863
080 of which: issued by financial corporations					126	10	127	10
090 of which: issued by non-financial corporations	12	12	12	12	215	6	218	6
120 Other assets	16,436				45,693			

**Table 61: EU AE1 - Encumbered and Unencumbered Assets 31.12.2020**

€ mio	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
	010	030	040	050	060	080	090	100
<b>010 Assets of the reporting institution</b>	<b>24,903</b>				<b>47,066</b>			
030 Equity instruments	-				122			
040 Debt securities	8,385		8,514		6,514		6,684	
050 of which: covered bonds								
060 of which: asset-backed securities								
070 of which: issued by general governments	8,345		8,474		6,270		6,446	
080 of which: issued by financial corporations	29		29		69		70	
090 of which: issued by non-financial corporations	11		11		175		168	
120 Other assets	16,518				40,430			

## ASSET ENCUMBRANCE

Table 62: EU AE2 - Collateral received 31.12.2021

€ mio	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 notionally eligible EHQLA and HQLA
	010	030	040	060
<b>130 Collateral received by the reporting institution</b>	<b>734</b>	<b>734</b>	<b>4,468</b>	<b>4,468</b>
140 Loans on demand				
150 Equity instruments				
160 Debt securities	-	-	4,468	4,468
170 of which: covered bonds	-	-	-	-
180 of which: asset-backed securities	-	-	-	-
190 of which: issued by general governments	-	-	4,468	4,468
200 of which: issued by financial corporations	-	-	-	-
210 of which: issued by non-financial corporations	-	-	-	-
220 Loans and advances other than loans on demand	-	-	-	-
230 Other collateral received	734	734	-	-
240 Own debt securities issued other than own covered bonds or ABSs	-	-	-	-
241 Own covered bonds and asset-backed securities issued and not yet pledged			72	-
<b>250 TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED</b>	<b>26,561</b>	<b>9,391</b>		

Table 62: EU AE2 - Collateral received 31.12.2020

€ mio	Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
	010		040	
<b>130 Collateral received by the reporting institution</b>		883		3,021
140 Loans on demand				
150 Equity instruments				
160 Debt securities		-		3,021
170 of which: covered bonds		-		-
180 of which: asset-backed securities		-		-
190 of which: issued by general governments		-		2,756
200 of which: issued by financial corporations		-		265
210 of which: issued by non-financial corporations		-		-
220 Loans and advances other than loans on demand		-		-
230 Other collateral received		883		-
240 Own debt securities issued other than own covered bonds or ABSs		-		-
241 Own covered bonds and asset-backed securities issued and not yet pledged				329
<b>250 TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED</b>		<b>25,786</b>		

## ASSET ENCUMBRANCE

**Table 63: EU AE3 - Sources of encumbrance 31.12.2021**

€ mio		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and securitisations encumbered
		010	030
<b>010</b>	Carrying amount of selected financial liabilities	15,742	25,419
<b>011</b>	of which: central banks	11,539	16,333

**Table 63: EU AE3 - Sources of encumbrance 31.12.2020**

€ mio		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030
<b>010</b>	Carrying amount of selected financial liabilities	14,999	24,589
<b>011</b>	of which: central banks	10,479	14,093

The Bank's principal sources of liquidity are its deposit base, ECB funding currently via the Targeted Long-term Refinancing Operations ("TLTROs") with ECB, repurchase agreements (repos) with major FIs and wholesale funding through the placement of the new senior unsecured issuance, as well as the Tier II notes.

As at 31 December 2021, the Group and the Bank have the following main types of encumbrance for funding purposes mainly with the ECB, other central banks and FIs:

- trading and investment debt instruments;
- loans and advances to customers at amortised cost; and
- covered bonds backed with mortgage loans.

In addition, as at 31 December 2021, the Group and the Bank have pledged an amount of €313 mio included in due from banks with respect to a guarantee for the non-payment risk of the Hellenic Republic, as well as Greek Government Bond of €664 mio with EIB for trade finance purposes. Also, collaterals are placed by the NBG Group for the market value of derivative transactions or as margin to the clearing system.

ECB funding and repos with FIs are collateralized mainly by high quality liquid assets, such as, EU sovereign bonds, Greek government bonds and T-Bills, as well as by other assets, such as highly rated corporate loans and covered bonds issued by the Bank. ECB funding at 31 December 2021 was €11.6 billion from €10.5 billion 31 December 2020. For more details of sources of liquidity and developments within 2021, please refer to [Section 13](#)).

## 15 REMUNERATION POLICIES & PRACTICES

The Bank is committed to an integrated Human Resources Management Policy and hence, has introduced procedures and has taken necessary measures in order to describe the general framework and basic principles for determining the remuneration of all employees working in the Bank and the Group. The governance arrangements and decision making process regarding the remuneration policy are presented in the following paragraphs.

### 15.1 The proportionality principle

The Bank applies the provisions of the current regulatory remuneration framework in a way and to the extent that is appropriate to its size, internal organization, nature, scope and complexity of its activities. In particular, the Bank aims to match the Remuneration Policy and practices with the individual risk profile, risk appetite and strategy of the Bank and its Group.

In order to apply the proportionality principle, the following (indicatively) criteria are taken into consideration (including the criteria provided in the EBA/GL/2021/04 guidelines):

1. The size of the Bank, particularly relating to the value of its assets and liabilities, its exposure to risk, the level of its regulatory own funds, as well as the number of staff and branches of the Bank;
2. The internal organization of the Bank, its listing on regulated markets, the use of internal methods for the measurement of capital requirements and its corporate goals; and
3. The nature, scope and complexity of its business activities and in particular, the type of its business activities, its Group dimension and activity on an international level, its extended customer base and variety of the type of clients, the portion of High Risk clients and/or activities over the total of clients and/or activities, the relative risks, the complexity of its products and contracts, etc.

### 15.2 Human Resources and Remuneration Committee

The Human Resources and Remuneration Committee (HRRC) was established by a Board decision (meeting no. 1259/5.5.2005) in order to provide assistance to the Bank's Board of Directors in performing its duties in respect of attracting, retaining, developing and motivating executives and employees of the highest professional and moral caliber, developing and maintaining a coherent system of values and incentives for human resources throughout the NBG Group, in cooperation and alignment with any other competent body overseeing related issues, such as ethics and culture and strategic priorities, developing a framework for fairly evaluating effort and rewarding performance, and ensuring that the preparation and implementation of the Group Remuneration Policy and the relevant procedures comply with the legislative and regulatory framework.

In particular, the Committee ensures the adoption on behalf of the Bank of an accurate, well documented and transparent remuneration policy, which shall be consistent with the business strategy, the risk profile and the risk appetite of the Bank and shall not encourage excessive and short-term risk-taking. The responsibilities of the HRRC include among others the following:

- formulating, reviewing regularly and monitoring the implementation of Group HR policies and practices, such as in relation to staff appointment, evaluation and promotion, training, diversity (including career planning aspects and measures to ensure equal treatment and opportunities for staff of different genders), including ensuring that the Remuneration Policy is up to date and review regularly, and at least whenever there are changes in the applicable regulatory framework, the Group Remuneration Policy with particular focus on the impact and incentives created by risk, capital and liquidity management and propose to the Board any amendments deemed necessary. Where periodic reviews reveal that the remuneration policies do not operate as intended or prescribed or where recommendations are made, the Remuneration Committee shall ensure that a remedial action plan is proposed, approved and timeously implemented;
- monitoring regularly the implementation of Group Remuneration Policy on the basis of reports from annual reviews performed, and submitting proposals to the Board when necessary. To this end, the Committee shall receive and assess the reports submitted regularly by the Internal Audit Function, on the basis of which the Committee shall evaluate the remuneration system. The Committee shall cooperate with other Committees of the Board, whenever required, and shall ensure the proper involvement of the internal control and other relevant functions (e.g. risk, compliance, audit, human resources) within the respective areas of expertise and where necessary seek external advice;
- submitting proposals to the Board on the Group's aggregate level of bonuses as well as on the adoption of new, or amendment of old, longterm share-related incentive plans;
- evaluating the performance of the Bank's Senior Management (including positions of General Managers and Assistant General Managers), with the exception of the performance evaluation of the Group Chief Audit Executive and the Group Chief Compliance Officer whose performance are evaluated by the Audit and the Compliance, Ethics and Culture Committee respectively, and the Chief Risk Officer whose performance is evaluated by the Board Risk Committee;
- submitting proposals to the Board regarding remuneration of Senior Management, upon proposal of the CEO, or of other positions that may be prescribed by the applicable regulatory framework or the Bank's Labor Regulation; and
- supervising the remuneration of the Group Chief Compliance Officer and the Chief Risk Officer whose appointment and performance assessment is overseen by the Compliance, Ethics and Culture Committee in the case of the Group Chief Compliance Officer and by the Risk Committee in the case of the Chief Risk Officer.

The Committee is consulted by the Audit Committee as may be necessary in the Audit Committee's responsibility for approving the Group Chief Audit Executive remuneration, while the appointment and performance assessment of the Chief Audit Executive is overseen by the Audit Committee.

## REMUNERATION POLICIES &amp; PRACTICES

While preparing its decisions on remuneration, the Committee should consider that such remuneration should reflect the powers, duties, expertise and responsibilities of each person, while in fulfilling the said duty, the Committee should pay particular attention to the impact of its decisions on risk profile and management.

The Committee is governed by a Functioning Regulation (Charter), which has recently been reviewed. The Charter in force was approved by the Board on 24 March 2022<sup>2</sup>.

The Committee shall solely consist of non-executive members of the Board, which shall be at least three in number. One member shall be the HFSF Representative at the Board of Directors. In their majority (including the Chair, excluding the HFSF representative) Committee members shall be independent non-executive Board members, in accordance with the definition of independence specified in the relevant framework, particularly Article 9 of Greek Law 4706/2020, and the Bank's Corporate Governance Code. The Committee composition shall include members possessing experience in the financial sector, while at least one member shall possess adequate expertise and professional experience in risk management and audit activities, mainly in alignment of remuneration policy with the risk and capital profile of the Bank.

The members of the Committee (including the Chair and Vice-Chair) are appointed by the Board of the Bank, following recommendation by the Board's Corporate Governance and Nominations Committee. The Committee members shall be selected on the basis of their competence and experience. The Committee is currently composed of four non-executive Members, of which three are independent and one is the HFSF Representative at the Board of Directors. The Committee members shall be appointed for a term of one year, which shall be automatically renewed for successive one-year renewal terms, unless otherwise decided. In any case, the mandates of the Committee members shall automatically expire if they cease to be members of the NBG Board. The Committee convenes at least four times a year and keeps minutes of its proceedings and reports regularly to the Board of Directors.

The Committee is currently comprised of the following members:

**Table 64:** Board HRRC Members

Human Resources and Remuneration Committee	
Chair	Anne Marion – Bouchacourt
Vice- Chair	Elena Ana Cernat
Member	JP Rangaswami
Member	Periklis Drougkas (HFSF representative)

Mr Periklis Drougkas has been appointed as the Representative of the Hellenic Financial Stability Fund on the Board of Directors as of 23 July 2018. The HFSF Representative is entitled to participate in the Board Committees and committees which do not solely comprise executive members, and has the rights and authorities prescribed by Law 3864/2010 as in force and the Relationship Framework Agreement between the National Bank of Greece and the Hellenic Financial Stability Fund. Pursuant to Law 3864/2010 (article 10 §2b), the Representative of the HFSF on the Bank's Board, has veto powers on any Board decision relating to the dividend policy and the

compensation of the Board's Chairman, the CEO, other members of the Board, as well as the General Managers and their Deputies.

During 2021, the Human Resources and Remuneration Committee convened twelve-times. Its members receive compensation for their participation.

During 2021, the key workings of the Committee included:

- Monitoring of PMS implementation.
- Review of Human Resources Policies (NBG Group Remuneration Policy, Workplace Violence & Harassment Policy) and of Variable Remuneration Schemes (Branch Network, Head Office, Stock Options Plan)
- Oversight/monitoring of a number of important Transformation Initiatives related to Human Resources issues and HR masterplan. (NBG Academy, Redesign of Human Resource Unit, Talent Management/Succession Planning, Career Framework etc.), Review of HR technology masterplan.
- Launch of 2021 Voluntary Exit Scheme.
- Proposals on contract terms of Bank's Senior Management.
- Review of role evaluations (including impact and compensation).

Detailed information regarding the responsibilities, the composition and the operation of the HRRC of the Bank's Board is available in the Bank's website [www.nbg.gr](http://www.nbg.gr), as well as in the Group and the Bank's Annual Financial Reports, as a part of the Board's Corporate Governance Statement.

### 15.3 Remuneration Policy

The Bank's and the Group's remuneration practices are consistent with the framework provided by Greek Law 4261/2014 (which transposed European Directive 2013/36/EU CRD IV), as amended by Greek Law 4799/2021, which transposed Directive 878/2019/EU (CRD V), Greek Law 4548/2018, Greek Law 3864/2010 ("the HFSF Law"), the Bank of Greece Governor's Act 2577/2006, as amended by the Bank of Greece Executive Committee's Act 158/10.5.2019, and the Amended Relationship Framework Agreement between the Bank and the HFSF.

The NBG Group Remuneration Policy sets out the conceptual and operating framework for remuneration within the Group, outlining and reflecting the basic principles upon which the NBG Group approaches staff remuneration:

- maximize value by supporting the Group's strategy;
- align with shareholders' interests;
- consider the interests of stakeholders and ensure they are appropriately balanced with those of shareholders;
- ensure no discrimination based upon non-job-related behaviours or characteristics.

Moreover, the NBG Group Remuneration Policy reaffirms the Group's values, aims at promoting ethical conduct and behaviors, meritocracy, transparency and, within given constraints, to follow market trends and dynamics. Its end goals are:

- to allow NBG to attract, motivate and retain key talent
- to align NBG's business goals with staff remuneration
- to enable NBG to maintain a competitive cost structure
- to promote fairness and meritocracy

<sup>2</sup> It is noted that following the revisions of Board Committees Charters, as of 01.03.2019 proposals to the Board regarding the remuneration of Board

members falls within the competence of the Corporate Governance and Nominations Committee.

- to safeguard the internal risk appetite by promoting prudent risk-taking and appropriate conduct practices.

The Policy applies to all NBG staff, meaning all employees of the Bank. Nonetheless, as required by Law 4548/2018, the remuneration of Board Members and Senior Management (specifically, General Managers and Assistant General Managers) is governed by the provisions of the (separate) NBG Directors' & Senior Managers' Remuneration Policy (see below). The Policy also sets out specific principles applying to categories of staff whose professional activities have a material impact on the organization's risk profile.

Group companies adopt similar Remuneration Policies, in line with the principles set out in the Group Remuneration Policy, adjusted appropriately and in a proportionate manner to their size and internal organization, as well as to the nature, scope and complexity of their activities, market conditions and regulatory environment of the country (or countries) they operate.

The Group Remuneration Policy was revised during 2021. The revision included alignment of the Policy with provisions of the Directive 878/2019/EU (CRD V) and the Bank of Greece Executive Committee's Act 158/10.5.2019, as well as changes, so that relevant procedures upheld by the Bank and Group are clearly outlined. The Bank further monitors developments in the applicable framework.

## 15.4 Bank Units

The following Divisions of the Bank, in accordance with their respective responsibilities, shall be involved in the design, review and implementation of the Remuneration Policy:

- Group Human Resources Divisions
- Group Corporate Governance and Compliance Divisions
- Group Legal Divisions
- Group Audit Divisions
- Group Internal Control Divisions
- Group Risk Management Divisions
- Group Finance Divisions

External experts may participate in the development and periodical review of the Remuneration Policy, whenever the Board sees fit. However, during 2021 no such external expert advice was sought.

## 15.5 Remuneration Policy Governance

The Policy is reviewed (and approved) every 12 months or ad hoc by the Bank's Board of Directors (non-executive members), following a proposal by the HRRC.

Group HR is responsible for submitting proposals on Remuneration Policy Revisions to the HRRC. Prior to its approval, the Remuneration Policy is subject to consultation with the competent bodies according to Law 3864/2010, as in force.

It is noted that, for this Policy to be amended, it is necessary to obtain the prior consent of the HFSF, as per the procedure specified in the applicable Relationship Framework Agreement (RFA) between the Bank and the HFSF.

## 15.6 Main characteristics of the remuneration system of the Bank according to the Bank's Remuneration Policy

The remuneration practices of the Bank are in compliance with the provisions of the existing regulatory framework concerning all staff, as well as with regulatory provisions regarding identified staff - specific categories of staff determined in accordance with Regulation (EU) No. 604/2014.

The basic principles and the most important design characteristics of the remuneration system of the Bank, which are aligned with applicable labor legislation, Collective Labor Agreements and Business Collective Labor Agreements, as well as relevant guidelines of the supervisory authorities, are described below.

### 15.6.1 Remuneration structure

Irrespective of its category, remuneration may consist of:

- direct monetary components such as cash, shares, options, pension contributions, loans netting, remuneration by third parties or
- non-cash components.

The NBG Group allocates all remuneration components to either fixed or variable remuneration, in line with the criteria provided by the applicable Regulatory framework. Moreover, through differentiating fixed and variable remuneration components over time and across functions, it ensures that remuneration is closely linked to both short- and long-term business strategy.

The maximum ratio of fixed to variable remuneration shall be determined in compliance with the provisions of the Regulatory framework, internal risk appetite as well as the competitive environment and international best practices.

The Board of Directors shall set the appropriate ratio between the fixed and the variable component of total remuneration, whereby the following principles shall apply:

1. the annual variable remuneration component shall not exceed 100% of the annual fixed remuneration component of the total annual remuneration, for each individual. A lower maximum percentage may apply;
2. any approval of a higher than 100% ratio shall be applied with the approval of the General Meeting of Shareholders and provided that the overall level of the variable component does not exceed 200% of the fixed component of the total remuneration for each individual.

In exceptional and duly justified cases, a different ratio may be set for individuals classified as Risk Takers.

Notably, the ratio between the variable and fixed remuneration components is set in line with at-the-time market-based valuation of the respective instruments, independently of any potential future (ex post) risk adjustments or fluctuation in their price or in the prices of other related components.

Regarding share options in particular, no options were granted in 2021.



### 15.6.2 Criteria used for determining variable remuneration

The NBG Group reserves the option (discretionary right) to grant its employees variable remuneration. Such payments are to be made through variable remuneration schemes as governed by the provisions of the HR Process Manual NBG Variable Remuneration Schemes.

Group HR is responsible to specify variable remuneration schemes, after consulting the employees' representatives, in accordance with the applicable Legal framework, and review them at least on an annual basis. The schemes are approved by the Board of Directors following the recommendation of the Human Resources and Remunerations Committee.

Notably, variable remuneration is paid out preferably in cash and in a single installment, unless otherwise determined by the applicable Regulatory framework.

It is noted that NBG grants its employees only with pay-for-performance variable remuneration. Other types of remuneration schemes such as discretionary pension benefits, retention schemes, guaranteed variable remuneration schemes etc. are not currently applicable.

### 15.6.3 Risk alignment of remuneration

In accordance with the applicable Regulatory framework, the remuneration of staff whose professional activities could have a material impact on the organization's risk profile - "Risk Takers" - is subject to additional provisions. Their identification, in line with the qualitative and quantitative criteria as per the provisions of the at each time applicable Legal and Regulatory framework, is conducted by the Group Corporate Governance and Compliance function, in cooperation with the competent units. In line with the Regulatory framework as well as with prudent risk management practices, Risk Takers are not provided with variable remuneration promoting excessive risk-taking practices (transaction-specific risks), nor are they rewarded for taking (cumulatively) risks which exceed the risk tolerance threshold of the organisation (Risk Appetite framework limits).

Additionally, one of NBG's main priorities is to deploy a sound conduct risk assessment mechanism aligned with NBG Group values and strategy, its internal risk culture and Risk Appetite Framework, aiming to supplement and safeguard prudent risk-taking through appropriate conduct practices. NBG Group defines and manages conduct risk explicitly as part of its risk management framework. There are robust processes in place to ensure that risk, reputation and conduct related matters, as well as financial losses and impairments, and other breaches of the risk management framework are specifically considered when assessing performance and determining variable remuneration rewards. Variable remuneration is granted through processes which promote accountability, reward appropriate behaviors and penalize inappropriate ones.

The Bank's Conduct Risk Assessment Committee, which consists of Chief Compliance and Corporate Governance Officer, Chief Risk Officer, Chief Internal Audit Officer, Chief Control Officer and Chief HR Officer, is responsible to ensure that variable remuneration is aligned with appropriate conduct throughout the organization. In this context, the Committee sets the criteria and the relative framework by which conduct risk assessment is applied in terms of variable remuneration payment, as well as reviews, endorses and

monitors conduct risk findings and takes appropriate proactive measures as necessary. These processes may result in a downward adjustment or cancelation of variable remuneration where/as appropriate.

### 15.7 Adjustment / deferral / retention/ claw back of variable remuneration

The Bank's Remuneration Policy foresees particular provisions including on deferral of at least 40% of variable remuneration for at least 3 to 5 years, or in the case of a variable remuneration component of a particularly high amount, of at least 60% of the amount, as well as on retention of instruments forming part of variable remuneration, with a view to aligning incentives with the Bank's longer-term interests and taking into consideration performance and performance-linked current and future risks over time.

The Bank may suspend, entirely or in part, the payoff of variable remuneration, if specific ratios (such as capital adequacy, liquidity etc.) are not met or if the financial situation of the Bank/Group has deteriorated significantly.

Respectively and, without prejudice to the provisions of labor Law, any variable remuneration paid should be reclaimed if, following such payment, it is discovered that the performance for which the variable remuneration was offered derived from practices that are inconsistent with the principles and policies of the Bank / Group. More specifically, in case of violations of regulations / procedures, misconduct, failure to meet appropriate standards of fitness and propriety, or other equally serious cause, or participation in or responsibility for conduct which resulted in significant losses, the Bank/Group Company shall assess the situation and shall be entitled to use any and all legal means available to claim the return of such amounts from the employee.

### 15.8 Payment / vesting

For the distribution of vested variable remuneration, the financial and capital strength of the Bank/entity and/or Group at the time of distribution is taken into account. In the event that financial and capital performance is significantly deteriorating, total variable remuneration (including payments of remuneration vesting from previous periods) will be postponed, reduced or altogether cancelled. Specifically, the Bank/entity and/or Group reserves the right to postpone, reduce or cancel previously vested (or vesting) payments, upon recommendation of the respective local (Bank/entity) or Group Finance or Risk functions to the HRRC and following the approval of the Board of Directors. Notably, in such cases of postponement, reduction or cancellation of vested (or vesting) payments, vintages of outstanding payments should be treated in a fair and proportionate manner.

### 15.9 Remuneration of senior management

In accordance with Directive (EU) 2017/828, as this has been (partly) transposed into the Greek legal framework with Greek Law 4548/2018 on Sociétés Anonymes, listed companies are required, among others, to establish a remuneration policy as regards directors and shareholders have the right to vote on the remuneration policy at the General Meeting. Additionally, in accordance with article 110 para 1 of Law 4548/2018, by statutory provision the Policy may also include in its scope the key

management personnel, as defined in International Accounting Standard (IAS) 24 para 9.

Within this context, and with the aim at further enhancing transparency in the remuneration framework of the Bank's management structure especially by extending the scope of the Policy so as to include not only Board members but also Senior Managers, the Bank's Annual General Meeting of Shareholders, held on 30 June 2020, following proposal of the Board of Directors, as assisted by the Corporate Governance and Nominations Committee and the Human Resources and Remuneration Committee, approved the revised NBG Directors' & Senior Managers' Remuneration Policy. With this revision, the Board aims to offer shareholders and the market the highest level of transparency and clarity in the remuneration scheme applicable to Senior Manager, further strengthening the investment profile of the Bank so as to ensure external competitiveness.

The NBG Directors' & Senior Managers' Remuneration Policy shall be applicable for a period of four years, unless revised earlier or in cases of temporary derogations, in alignment with the relevant applicable provisions.

The NBG Directors' & Senior Managers' Remuneration Policy is available on the Bank's website, (<https://www.nbg.gr/en/group/esg/corporate-governance/corporate-governance-framework>).

The remuneration of Senior Management (namely, General Managers and Assistant General Managers) is approved by the Board, following proposal of the HRRC upon proposal of the CEO, or of other positions that may be prescribed by the applicable regulatory framework or the Bank's Labor Regulation. The remuneration of Senior Managers is determined as provided for under the terms of their relevant contracts, taking into account the salaries of peers in the Greek and international banking and other sectors, as well as the Bank's financial position, risks undertaken and supervisory indicators, and within the approved by the Board relevant salary bands. As long as the Bank is subject to the provisions of Law 3864/2010 (article 10 para 3), Senior Management remuneration cannot exceed the total remuneration of the Governor of the Bank of Greece, while in any case remuneration shall be awarded in accordance with the provisions of the legal and regulatory framework, as this each time applies. In accordance with the provisions of Law 3864/2010 (article 10 para 3), no bonus is paid to Senior Managers.

The Committee shall ensure that the remuneration of internal control functions (e.g. risk management, internal audit, compliance, financial control) personnel should not be linked to the performance of the business units they control. The Committee supervises the remuneration of the Group Chief Compliance Officer and the Chief Risk Officer whose appointment and performance assessment is overseen by the Compliance, Ethics and Culture Committee in the case of the Group Chief Compliance Officer and by the Risk Committee in the case of the Chief Risk Officer. The Committee is consulted by the Audit Committee as may be necessary in the Audit Committee's responsibility for approving the Group Chief Audit Executive remuneration, while the appointment and performance assessment of the Chief Audit Executive is overseen by the Audit Committee. The Committee shall make recommendations to the Board on the design of the remuneration package and amounts of

remuneration to be paid to the senior staff members in the control functions.

## 15.10 Directors' Remuneration

In accordance with Greek Law 4548/2018 article 110, listed companies are required to establish a remuneration policy as regards directors and shareholders have the right to vote on the remuneration policy at the General Meeting. Within this context, the Board of Directors, following proposal of the Corporate Governance and Nominations Committee, submitted the NBG Directors' Remuneration Policy to the Annual General Meeting of Shareholders, which approved it on 31 July 2019. Additionally, in accordance with article 110 para 1 of Law 4548/2018, by statutory provision the Policy may also include in its scope the key management personnel, as defined in International Accounting Standard (IAS) 24 para 9. Within this context, and with the aim at further enhancing transparency in the remuneration framework of the Bank's management structure especially by extending the scope of the Policy so as to include not only Board members but also Senior Managers, the Bank's Annual General Meeting of Shareholders, held on 30 June 2020, following proposal of the Board of Directors, as assisted by the Corporate Governance and Nominations Committee and the Human Resources and Remuneration Committee, approved the revised NBG Directors' & Senior Managers' Remuneration Policy. The Policy shall be applicable for a period of four years, unless revised earlier or in cases of temporary derogations, in alignment with the relevant applicable provisions. This proposal of the Bank's Board of Directors (non-executive members), following recommendation of the Corporate Governance and Nominations Committee, is formulated, in line with the current regulatory framework and the relevant commitments and legislation to which the Bank is subject in accordance with EU state aid rules and according to the Bank's Remuneration Policy, the Charters of competent Board Committees as well as industry best practices, in a way that adequately reflects the time and effort the members are expected to contribute to the work of the Board, while at the same time promoting efficiency of the Board. As long as the Bank is subject to the provisions of Law 3864/2010 (article 10 para 3), Directors' remuneration cannot exceed the total remuneration of the Governor of the Bank of Greece, while in any case remuneration shall be awarded in accordance with the provisions of the legal and regulatory framework, as this each time applies. In accordance with the provisions of Law 3864/2010 (article 10 para 3), no bonus is paid to Executive and Non-Executive Directors.

More information on the NBG Directors' & Senior Managers' Remuneration Policy is available in the Bank's website, (<https://www.nbg.gr/en/group/esg/corporate-governance/corporate-governance-framework>).

Remuneration of the Board's Chairman, the CEO and the Executive Board members is determined based on proposal by non-executive members of the Board<sup>3</sup>.

The salaries of the Chairman, the CEO and Board members are determined annually or as provided for under the terms of their relevant contracts, taking into account the salaries of peers in the Greek and international banking and other sectors, as well as the Bank's financial position, risks undertaken and supervisory indicators.

<sup>3</sup> It is noted that following revision of Board Committees Charters, as of 01.03.2019 proposals to the Board regarding the remuneration of Board

members falls within the competence of the Corporate Governance and Nominations Committee.

## REMUNERATION POLICIES &amp; PRACTICES

The remuneration of non-executive members of the Board is linked to factors such as their general responsibilities and the time they devote to carrying out their duties, but not to the short-term results of the Bank/Group and does not include bonuses.

The Annual Ordinary General Meeting of the Bank's Shareholders approves the remuneration of the Chairman of the Board, the CEO, the Executive and non-executive Directors, including among others their remuneration in their capacity as members of the Board or as Chairs of Board Committees for the previous financial year, pursuant to Law 4548/2018 and determines their respective remuneration through to the next Annual General Meeting. It is noted that, according to the decision of the Annual General Meeting of 30 June 2017 the Chair of the Board of Directors and executives of the Bank do not receive remuneration as members of the Board of Directors and their remuneration is incorporated in their annual gross remuneration.

The remuneration received by the Chairman of the Board, the executive and non-executive Directors for the year 2021, due to their relationship with the Bank, and the compensation they received for their participation in the Board and Board Committees' meetings (as well as the individual attendance of each member of the Board in these meetings) have already been published in the Bank's Annual Financial Report for the annual period ended 31 December 2021, as part of the Board's Annual Report, which is available in the Bank's website (<https://www.nbg.gr/en/group/investor-relations/financial-statements-annual-interim/financial-statements>).

During 2021, no variable remuneration has been granted to the Chairman of the Board and the executive Directors, while the remuneration of the non-executive Directors does not include bonuses according to the NBG Directors' & Senior Managers' Remuneration Policy.

### 15.11 Aggregate Quantitative Information on remuneration

Remuneration of senior management and staff members whose professional activities have a material impact on the Bank's risk profile, in accordance with the provisions of the Commission Delegated Regulation (EU) 2021/923 of 25 March 2021 supplementing the Capital Requirements Directive IV and repealing and replacing Delegated Regulation (EU) 604/2014, for the financial year 2021, is presented in the tables below, as obtained from Bank and Group data at the end of the reporting year (amounts in € mio).

Furthermore, it is noted that, for the year 2021, at the Bank and the Group no staff remunerated with more than EUR 1 million was occupied, no special payments have been made to identified staff and there was no deferred remuneration.

## REMUNERATION POLICIES &amp; PRACTICES

Table 65: EU REM1 - Remuneration awarded for the financial year 31.12.2021

			MB Supervisory function	MB Management function	Other senior management	Other identified staff
1	Fixed remuneration	Number of identified staff	30	14	97	124
2		Total fixed remuneration	1.85	2.27		20.43
3		Of which: cash-based	1.84	2.24		19.86
4		(Not applicable in the EU)				
EU-4a		Of which: shares or equivalent ownership interests				
5		Of which: share-linked instruments or equivalent non-cash instruments				
EU-5x		Of which: other instruments				
6		(Not applicable in the EU)				
7		Of which: other forms	0.014	0.027		0.57
8		(Not applicable in the EU)				
9	Variable remuneration	Number of identified staff				
10		Total variable remuneration		0.15		0.28
11		Of which: cash-based		0.15		0.28
12		Of which: deferred				
EU-13a		Of which: shares or equivalent ownership interests				
EU-14a		Of which: deferred				
EU-13b		Of which: share-linked instruments or equivalent non-cash instruments				
EU-14b		Of which: deferred				
EU-14x		Of which: other instruments				
EU-14y		Of which: deferred				
15		Of which: other forms				
16		Of which: deferred				
17	Total remuneration (2 + 10)		1.85	2.42		20.71

Table 66: EU REM5 - Information on remuneration of staff whose professional activities have a material impact on institutions' risk profile (identified staff) 31.12.2021

	Management body remuneration			Business areas					-
	MB Supervisory function	MB Management function	Total MB	Investment banking	Retail banking	Asset management	Corporate functions	Independent internal control functions	All other
1 Total number of identified staff									265
2 Of which: members of the MB	30	14	44						
3 Of which: other senior management				5	14	5	20	17	36
4 Of which: other identified staff				28	37	12	17	18	12
5 Total remuneration of identified staff	1.85	2.42	4.27	2.57	5.51	1.44	4.41	4.04	2.73
6 Of which: variable remuneration		0.15	0.15		0.028		0.022	0.014	0.21
7 Of which: fixed remuneration	1.85	2.27	4.12	2.57	5.48	1.44	4.39	4.03	2.52



# List of abbreviations

Abbreviation	Definition	Abbreviation	Definition
<b>ABS</b>	Asset-Backed Securities	<b>IAS</b>	International Accounting Standards
<b>ACC</b>	Additional Credit Claims	<b>ICAAP / ILAAP</b>	Internal Capital / Liquidity Adequacy Assessment Process
<b>AFS</b>	Available for Sale	<b>ICMA</b>	International Capital Markets Association
<b>A-IRB</b>	Advanced Internal Ratings Based (Approach)	<b>ICT</b>	Information and Communication Technology
<b>ALCO</b>	Asset Liability Committee	<b>IFRS</b>	International Financial Reporting Standards
<b>ALM</b>	Asset Liquidity Management	<b>IMA</b>	Internal Model Approach
<b>AMC</b>	Asset Management Companies	<b>IRB</b>	Internal Ratings Based (approach)
<b>AML</b>	Anti-Money Laundering	<b>IRRBB</b>	Interest Rate Risk in the Banking Book
<b>APP</b>	Asset Purchasing Program	<b>IRS</b>	Interest Rate Swaps
<b>APS</b>	Asset Protection Scheme	<b>ISDA</b>	International Swaps and Derivatives Association
<b>ATHEX</b>	Athens Exchange	<b>IT</b>	Information Technology
<b>BAC</b>	Board Audit Committee	<b>ITS</b>	Implementing Technical Standards
<b>BC</b>	Bankruptcy Code	<b>IVS</b>	International Valuation Standards
<b>BCBS</b>	Basel Committee on Banking Supervision	<b>JST</b>	Joint Supervisory Team
<b>BoG</b>	Bank of Greece	<b>KPI</b>	Key Performance Indicator
<b>BoS</b>	Board of Supervisors (EBA)	<b>KRI</b>	Key Risk Indicator
<b>bps</b>	Basis Point	<b>LCR</b>	Liquidity Coverage Ratio
<b>BRC</b>	Board Risk Committee	<b>LGD</b>	Loss Given Default
<b>BRRD</b>	Bank Recovery and Resolution Directive	<b>LR</b>	Leverage Ratio
<b>BU</b>	Business Unit	<b>M&amp;A</b>	Mergers and Acquisitions
<b>CBR</b>	Combined Buffer Requirements	<b>MDA</b>	Maximum Distributable Amount
<b>CCB</b>	Capital Conservation Requirement	<b>MIS</b>	Management Information System
<b>CCF</b>	Credit Conversion Factor	<b>ML</b>	Money Laundering
<b>CCO</b>	Chief Credit Officer	<b>MoB</b>	Months on Book
<b>CCP</b>	Code of Civil Procedure	<b>MRA</b>	Moody's Risk Advisor
<b>CCR</b>	Counterparty Credit Risk	<b>MREL</b>	Minimum Requirements for Own Funds & Eligible Liabilities
<b>CCyB</b>	Countercyclical Capital Buffer	<b>MRO</b>	Main Refinancing Operations
<b>CDS</b>	Credit Default Swap	<b>MVS</b>	Model Validation Sector
<b>CEBS</b>	Committee of European Banking Supervisors	<b>MVU</b>	Model Validation Unit
<b>CEF</b>	Credit Equivalent Factor	<b>NBG</b>	National Bank Of Greece, S.A
<b>CEO</b>	Chief Executive Officer	<b>NCA</b>	National Competent Authority
<b>CET1</b>	Common Equity Tier 1	<b>NII</b>	Net Interest Income
<b>CFO</b>	Chief Financial Officer	<b>NMRF</b>	Non-Modellable Risk Factors
<b>CMS</b>	Collateral Management System	<b>NPE</b>	Non Performing Exposure
<b>COO</b>	Chief Operations Officer	<b>NPL</b>	Non Performing Loan
<b>CRD</b>	Capital Requirements Directive	<b>NPV</b>	Net Present Value
<b>CRM</b>	Corporate Rating Model	<b>NRA</b>	National Resolution Authorities
<b>CRO</b>	Chief Risk Officer	<b>NSFR</b>	Net Stable Funding Ratio
<b>CRR</b>	Capital Requirements Regulation	<b>O/N</b>	Overnight
<b>CSA</b>	Credit Support Annex	<b>OCP</b>	Open Currency Position
<b>CSPP</b>	Corporate Sector Purchasing Program	<b>OCR</b>	Overall Capital Requirement
<b>CSRBB</b>	Credit Spread Risk in the Banking Book	<b>OCW</b>	Out-of-Court Workout
<b>CVA</b>	Credit Valuation Adjustment	<b>OR</b>	Operational Risk
<b>DCD</b>	Domestic Credit Division	<b>ORCO</b>	Operational Risk Management Committee
<b>DGSD</b>	Deposit Guarantee Schemes Directive	<b>ORMF</b>	Operational Risk Management Framework
<b>dpd</b>	days past due	<b>ORR</b>	Obligors' Risk Rating
<b>DoD</b>	Definition of Default	<b>O-SII</b>	Other Systemically Important Institution
<b>DTA</b>	Deferred Tax Asset	<b>OTC</b>	Over-the-counter
<b>DTC</b>	Deferred Tax Credit	<b>P&amp;L</b>	Profit and Loss



## APPENDIX

<b>EAD</b>	Exposure at Default	<b>P2G</b>	Pillar 2 Guidance
<b>EBA</b>	European Banking Authority	<b>P2R</b>	Pillar 2 Requirement
<b>EBF</b>	European Banking Federation	<b>PD</b>	Probability of Default
<b>EBITDA</b>	Earnings Before Interest, Tax, Depreciation and Amortization	<b>PE</b>	Performing Exposures
<b>EC</b>	European Commission	<b>PELTROs</b>	Pandemic Emergency Long-Term Refinancing Operations
<b>ECAI</b>	External Credit Assessment Institutions	<b>PEPP</b>	Pandemic Emergency Purchase Program
<b>ECB</b>	European Central Bank	<b>PMO</b>	Project Management Office
<b>ECL</b>	Expected Credit Losses	<b>ppts</b>	Percentage points
<b>EDIS</b>	European Deposit Insurance Scheme	<b>PSE</b>	Public Sector Entity
<b>EFSF</b>	European Financial Stability Facility	<b>PSI</b>	Private Sector Involvement
<b>EIB</b>	European Investment Bank	<b>QCCP</b>	Qualifying Central Counterparty
<b>EIF</b>	European Investment Fund	<b>RAF</b>	Risk Appetite Framework
<b>EIOPA</b>	European Insurance & Occupational Pensions Authority	<b>RAPM</b>	Risk-Adjusted Performance Metrics
<b>EL</b>	Expected Loss	<b>RCF</b>	Risk Culture Framework
<b>ELA</b>	Emergency Liquidity Assistance	<b>RCSA</b>	Risk and Control Self-Assessment
<b>ERBA</b>	External Ratings Based Approach	<b>RES</b>	Renewable Energy Resources
<b>ESA</b>	European Supervisory Authorities	<b>RTS</b>	Regulatory Technical Standards
<b>ESG</b>	Environmental, Social & Governance	<b>RWA</b>	Risk Weighted Assets
<b>ESM</b>	European Stability Mechanism	<b>SA</b>	Standardized Approach
<b>ESMA</b>	European Securities & Markets Authority	<b>SAU</b>	Special Assets Unit
<b>ESRB</b>	European Systemic Risk Board	<b>SB(L)</b>	Small Business (Lending)
<b>ETEAN</b>	Hellenic Fund for Entrepreneurship and Development	<b>SEC</b>	Securities and Exchange Commission
<b>EU</b>	European Union	<b>SFDR</b>	Sustainable Finance Disclosure Regulation
<b>EVE</b>	Economic Value of Equity	<b>SGP</b>	Stability & Growth Pact
<b>EVS</b>	European Valuation Standards	<b>SICR</b>	Significant Increase of Credit Risk
<b>EW</b>	Early Warning	<b>SL</b>	Specialised Lending
<b>ExCo</b>	Executive Committee	<b>SME</b>	Small & Medium Enterprises
<b>FBE</b>	Forborne Exposures	<b>SPPI</b>	Solely Payments of Principal and Interest
<b>FI</b>	Financial Institution	<b>SPV</b>	Special Purpose Vehicle
<b>F-IRB</b>	Foundation internal ratings-based (approach)	<b>SR</b>	Securitization Repositories
<b>FRTB</b>	Fundamental Review of the Trading Book	<b>SRB</b>	Single Resolution Board
<b>FSB</b>	Financial Stability Board	<b>SRCO</b>	Segment Risk & Control Officer
<b>FVTOCI</b>	Fair Value Through Other Comprehensive Income	<b>SREP</b>	Supervisory Review and Evaluation Process
<b>FVTPL</b>	Fair Value Through Profit or Loss	<b>SRM</b>	Single Resolution Mechanism
<b>FX</b>	Foreign Exchange	<b>SSM</b>	Single Supervisory Mechanism
<b>GAAP</b>	Generally Accepted Accounting Principles	<b>ST</b>	Stress Test
<b>GGB</b>	Greek Government Bond	<b>STS</b>	Single, Transparent, Standardized (securitization)
<b>GHOS</b>	Governors and Heads of Supervision	<b>sVaR</b>	Stressed Value at Risk
<b>GICD</b>	Group International Credit Division	<b>TF</b>	Terrorist Financing
<b>GL</b>	Guidelines	<b>TFEU</b>	Treaty on the Functioning of the European Union
<b>GMORM(D)</b>	Group Market & Operational Risk Management (Division)	<b>TLAC</b>	Total Loss Absorbing Capacity
<b>GMRA</b>	Global Master Repurchase Agreement	<b>TLTRO</b>	Targeted Long-Term Refinancing Operations
<b>GRC</b>	Governance Risk & Compliance	<b>TRIM</b>	Targeted Review of Internal Models
<b>GRCA(D)</b>	Group Risk Control & Architecture (Division)	<b>TSCR</b>	Total SREP Capital Requirement
<b>GRCD</b>	Group Retail Credit Division	<b>URCO</b>	Unit Risk & Control Officer
<b>G-SII</b>	Global Systemically Important Institution	<b>UAT</b>	User Acceptance Testing
<b>HCMC</b>	Hellenic Capital Market Commission	<b>UTP</b>	Unlikelihood to Pay
<b>HDB</b>	Hellenic Development Bank	<b>VaR</b>	Value at Risk
<b>HFSF</b>	Hellenic Financial Stability Fund	<b>VCV</b>	Variance-Covariance
<b>HRRC</b>	Human Resources and Remuneration Committee	<b>WAM</b>	Weighted Average Maturity
<b>HTCS</b>	Held to Collect and Sell		

