

Pillar III Disclosures on a consolidated basis

June 2023



Table of Contents

IN	IDEX (OF TABLES	4
1	II	NTRODUCTION & GENERAL INFORMATION	6
	1.1	PILLAR III DISCLOSURE POLICY	7
2	R	EGULATORY FRAMEWORK & RECENT DEVELOPMENTS	8
	2 1	Regulatory Framework	8
		1.1.1 The Main Pillars	
	2	.1.2 EU package of Risk Reduction Measures: CRR2 / CRD5 / BRRD2 / SRMR2	
	2.2		
3	N	IBG'S TRANSFORMATION PROGRAM	12
4		EGULATORY OWN FUNDS & PRUDENTIAL REQUIREMENTS	
	4.1	KEY METRICS	
	4.2	RECONCILIATION OF REGULATORY OWN FUNDS TO BALANCE SHEET IN THE AUDITED FINANCIAL STATEMENTS	
	4.3	STRUCTURE OF OWN FUNDS	
	4.4	IFRS 9 IMPACT ON OWN FUNDS	17
	4.5	DTC LAW	18
	4.6	Transitional own funds disclosure template	18
	4.7	CAPITAL REQUIREMENTS UNDER PILLAR I	21
	4.8	Overall Capital Requirement (OCR)	22
	4.9	MREL REQUIREMENTS	23
	4.10	LEVERAGE RATIO	24
5	С	REDIT RISK	25
	5.1	DEFINITIONS AND GENERAL INFORMATION	25
	5.2	IMPAIRMENT - EXPECTED CREDIT LOSSES	25
	5.3	MATURITY CLASSIFICATION OF CREDIT EXPOSURES.	27
	5.4	NON-PERFORMING AND FORBORNE EXPOSURES	27
	5	.4.1 Disposal of NPE portfolios	27
	5.5	CREDIT RISK MITIGATION TECHNIQUES	36
	5.6	PORTFOLIOS UNDER THE STANDARDISED APPROACH	37
6	С	OUNTERPARTY CREDIT RISK	41
7	N	AARKET RISK	45
	7.1	Stress testing	47
	7.2	BACK TESTING	48
8	E	SG RISKS	49
	8.1	ESG Strategy and Governance	49
	8	.1.1 NBG ESG Strategy	
	8	1.1.2 NBG ESG strategic initiatives	
	8	2.1.3 (Instruments) Promoting Green/Sustainable financing	
	8	1.1.4 Responsible Financing	51
	8	.1.5 Eligibility to EU Taxonomy	51
	8	2.1.6 ESG Governance, roles and responsibilities	53
	8	2.1.7 NBG Governance on C&E risks: 3LoD model	55

10	LIQUID	ITY RISK	90
9	SECUR	TIZATION	84
8	3.3 Qua	NTITATIVE DISCLOSURES ON CLIMATE CHANGE TRANSITION AND PHYSICAL RISKS AND MITIGATING ACTIONS	70
	8.2.6	ESG Risk Management - Planned actions	69
	8.2.5	C&E-related risk identification and materiality assessment	63
	8.2.4	Incorporation of ESG in Operational Risk	63
	8.2.3	Incorporation of ESG in the Credit Granting and Monitoring Process	62
	8.2.2	Risk Appetite Framework: ESG quantitative statements	61
	8.2.1	ESG data and IT infrastructure-related enhancements	61
8	3.2 ESG	RISK MANAGEMENT FRAMEWORK	60
	8.1.8	ESG Internal Framework (Policies, Codes and Procedures)	56

Index of tables

Table 1: ESG related Transformation Program sub-initiatives
Table 2: EU KM1 – Key metrics template14
Table 3: EU CC2- Reconciliation of regulatory own funds to balance sheet in the audited financial statements
Table 4: Own Funds Structure
Table 5: IFRS 9 impact
Table 6: EU CC1 - Transitional Own Funds 30.06.202319
Table 7: EU OV1 - Overview of RWAs21
Table 8: EU CCyB2 - Amount of institution-specific countercyclical capital buffer22
Table 9: EU CCyB1 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer 30.06.202323
Table 10: Leverage ratio24
Table 11: EU LR1, LRSum – Summary reconciliation of accounting assets and leverage ratio exposures as of 30.06.2023 and 31.12.202224
Table 12: EU LR3, LRSpl – Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) as of 30.06.2023 compared to 31.12.202224
Table 13: EU CR1 A – Maturity of exposures 30.06.2023
Table 14: EU CQ1 - Credit quality of forborne exposures 30.06.202328
Table 15: EU CQ2 - Quality of forbearance 30.06.2023 and 31.12.202229
Table 16: EU CR1 - Performing and non-performing exposures and related provisions 30.06.202329
Table 17: EU CQ4 - Quality of non-performing exposures by geography 30.06.202331
Table 18: EU CQ5 - Credit quality of loans and advances by industry 30.06.202332
Table 19: EU CQ6 - Collateral valuation - loans and advances 30.06.202333
Table 20: EU CR2 - Changes in the stock of non-performing loans and advances 30.06.202334
Table 21: EU CR2a - Changes in the stock of non-performing loans and advances and related net accumulated recoveries 30.06.202334
Table 22: EU CQ7 - Collateral obtained by taking possession and execution processes 30.06.202335
Table 23: EU CQ8 - Collateral obtained by taking possession and execution process - vintage breakdown 30.06.2023
Table 24 : EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques 30.06.2023
Table 25: EU CR4 - Standardised approach - Credit Risk Exposure and CRM effects 30.06.202337
Table 26: Mapping of Credit quality steps37
Table 27 : EU CR5 - Standardised approach 30.06.202338
Table 28: EU CCR1 - Analysis of CCR exposure by approach (€ mio) 30.06.202341
Table 30: EU CCR8 – Exposures to CCPs (€ mio) 30.06.2023
Table 31: EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (€ mio) 30.06.2023
Table 32: EU CCR5 – Composition of collateral for CCR exposures (€ mio) 30.06.202344
Table 33: EU CCR6 - Credit derivatives exposures (€ mio) 30.06.202344
Table 35: EU MR2-A – Market risk under the IMA (€ mio) 30.06.2023
Table 36: EU MR2-B – RWA flow statements of market risk exposures under the IMA (€ mio) 30.06.202346
Table 37: EU MR3 – IMA values for trading portfolios (€ mio) 30.06.2023
Table 38: Stress test Scenarios
Table 39: Volatility stress test Scenarios
Table 40: ESG Strategic Themes
Table 41: Green Bond proceeds allocation to RES projects
Table 42: Taxonomy eligibility (Article 10, para 3)
Table 43: ESG Governance - Three Lines of Defence
Table 44: ESG indicators in Risk Appetite dashboard
Table 45: Non – exhaustive list of identified primary C&E risk drivers
Table 46: Relevance of C&E risk drivers
Table 47: Climate Transition risks – Risk drivers, transmission channels & potential impact
- 22-2 ··· 2 ··· 21-2-2 ··

Table 49: Environmental risks – Risk drivers, transmission channels & potential impact	66
Table 50: C&E-related risks – Outcome of RIMA process	68
Table 51: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual mat 30.06.2023	
Table 52: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector excluding RES 30.06.2023	74
Table 53: : 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector excluding RES (%) 30.06.2023	74
Table 54: 2.CC - Banking book- Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the colla 30.06.2023	
Table 55: 4.CC - Banking book- Climate change transition risk: Climate change transition risk: Exposures to top 20 carbon-intensive 30.06.2023	
Table 56: 5.CC - Banking book- Climate change physical risk: Exposures subject to physical risk 30.06.2023	80
Table 57: 10.CC - Other climate change mitigating actions that are not covered in the EU Taxonomy 30.06.2023	82
Table 58: EU SEC1 - Securitisation exposures in the non-trading book (€ mio) 30.06.2023	87
Table 59: EU SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acti originator or as sponsor (€ mio) 30.06.2023	_
Table 60: EU SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments (€ mio) 30.06.202	23 88
Table 61: EU SEC4 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acti investor (€ mio) 30.06.2023	_
Table 62: EU LIQ1 - Quantitative Information of Liquidity Coverage Ratio 2023	92
Table 63: EU LIQ2 - Net Stable Funding Ratio 30.06.2023	94

INTRODUCTION & GENERAL INFORMATION

1 INTRODUCTION & GENERAL INFORMATION

National Bank of Greece S.A. (hereinafter "NBG" or the "Bank") 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.

In its 182 years of operation, the Bank has expanded on its commercial banking business by entering into related business areas. The Bank and its subsidiaries (hereinafter the "Group") provide a wide range of financial services including mainly retail, corporate and investment banking, non-performing exposures management, transactional banking, leasing, factoring, brokerage, asset management, real estate management and insurance services.

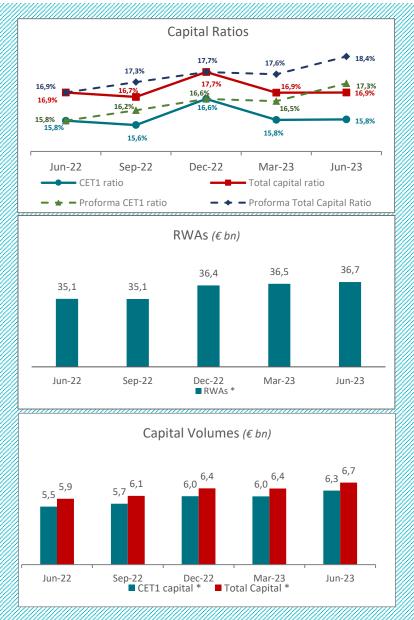
The Group operates mainly in Greece but also abroad through its branch in Cyprus and its subsidiaries in North Macedonia, Cyprus, Luxembourg and U.K.

Following the respective Bank's decision in 2021, the Group ceased its operation in Egypt, Malta and NBG London Branch; and therefore the NBG Egypt Branch, the NBG London Branch and the subsidiaries NBG Malta Ltd (formerly known as NBG Bank Malta Ltd) and NBG Malta Holdings Ltd are currently under liquidation.

The Bank, as an 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

2Q23 CET1 and Total Capital ratio at 17.3% and 18.4% respectively, well above the OCR ratios of 9.72% and 14.53% respectively for 2023, reflecting strong core profitability that generates capital on a sustainable basis, with the CET1 and total capital ratios rising by c80bps qoq for a second quarter in a row.



^{*} Including profits for the period

INTRODUCTION & GENERAL INFORMATION

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.

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.

2.1 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.

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

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.

It 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.

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

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:

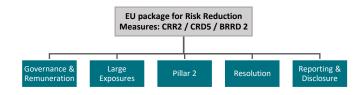


Figure 1: EU package of Risk Reduction Measures

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 by the Basel Committee on Banking Supervision (BCBS) often referred to as 'Basel IV'.

2.2 Recent Regulatory Developments H1' 23

EU-wide Stress Test

On January 31st, 2023 the EBA launched the 2023 EU-wide stress test and released the macroeconomic scenarios. This year's EU-wide stress test is designed to provide valuable input for assessing the resilience of the European banking sector in the current uncertain and changing macroeconomic environment. The adverse scenario is based on a narrative of hypothetical heightened geopolitical tensions, with high inflation and higher interest rates having strong adverse effects on private consumption and investments, both domestically and globally. In terms of GDP decline, the 2023 adverse scenario is the most severe used in the EU wide stress up to now. The severe nature of the adverse scenario reflects a deliberate choice and reflects the purpose of the stress test exercise, which is to assess the resilience of the European banking system to a hypothetical severely deteriorated macro-environment. According to the results published at the end of July 2023, NBG's Fully Loaded FY22 CET1 ratio incurred a maximum capital depletion of just 271bps, an outcome that positions NBG as a top performer in the domestic banking space. At the EU wide level, considering the participation of 70 banks, NBG ranks 5th in terms of the Fully Loaded CET1 depletion over the 3 year period to 2025, which stood at just 136bps. NBG Fully Loaded CET1 ratio as at 30.06.23 stood at 17.3%, c150bps higher relative to the 31.12.22 starting point of the 2023 EU wide stress test. This outstanding result demonstrates NBG's resilience to shocks as well as the notable progress achieved over the past few years, in terms of strengthening our balance sheet and building up adequate capital and liquidity buffers, with the 3yr delta in our Fully Loaded CET1 capital ratio in the 2023 stress test standing at -136bps against -640bps in the 2021 exercise.

Supervisory Priorities

The three priorities identified by ECB 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.

The focus of SRB for 2023 will be on achieving resolvability of SRB entities and less significant institutions, fostering a robust resolution out crisis framework. carrying effective management, operationalising the Single Resolution Fund, and targeting improvements to areas such as IT and organisational structure. 2023 will be the last year of a transitional period for the establishment of the main elements of the resolution framework in the Banking Union. All banks and credit institutions under the Single Resolution Board's (SRB's) remit are expected to be resolvable and compliant with the Expectations for Banks (EfB), as well as achieve the final individual banks' Minimum Requirements for Own Funds and Eligible Liabilities (MREL) targets.

Securitisations

On April 21st, 2023, the EBA launched a public consultation on its draft Guidelines on the criteria related to simplicity, standardisation and transparency and additional specific criteria for on-balance-sheet securitisations (so-called STS criteria). These Guidelines will ensure a harmonised interpretation of these STS criteria, in alignment with the EBA Guidelines for traditional securitisations. The consultation runs until 7 July 2023.

On April 25th, 2023, the EBA published its final draft Regulatory Technical Standards (RTS) specifying the determination by originator institutions of the exposure value of synthetic excess spread (SES) in synthetic securitisations. These draft RTS clarify the calculation of the components that should be included in this exposure value taking into account the relevant losses expected to be covered by

Liquidity

On June 15th, 2023, the EBA published its third Report on the monitoring of liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) implementation in the EU. This Report assesses the potential impact on LCR and NSFR levels of the upcoming central bank funding repayment (mainly repayments of the targeted longer-term refinancing operations - TLTRO) as well as of a potential scenario of higher liquidity risk, particularly affecting government bonds, derivatives and repo markets, in the context of a higher interest rate environment, inflation and recession risks.

On June 16th, the SRB published new guidance on liquidity in resolution data for 115 of Europe's largest banks. The guidance document targets the liquidity dimension of the SRB's previously issued "Expectations for banks" aiming at enhancing banks' resolvability and preparedness for a potential resolution.

ESG Risks

The Publications Office of the European Union has developed tools and mechanisms during the latest years, for the integration of ESG factors into the EU banking prudential framework and into banks' business strategies and investment policies, setting forth a vast

number of proposals, technical specifications, guidelines and statements to tackle ESG risks.

On January 24th, 2023 the ECB published a first set of climate-related statistical indicators, to better assess the impact of climate-related risks on the financial sector and to monitor the development of sustainable and green finance, fulfilling another of the commitments of its climate action plan.

On March 13th, 2023 the ESAs, together with the ECB, published a Joint Statement on climate-related disclosure for structured finance products which encourages the development of disclosure standards for securitised assets through harmonised climate-related data requirements.

Reporting & Disclosure

On March 10th, 2023 the EBA issued a revised list of validation rules for its reporting standards (Implementing Technical Standards, Regulatory Technical Standards and Guidelines), highlighting those which have been deactivated either for incorrectness or for triggering IT problems. Competent Authorities throughout the EU are informed that data submitted in accordance with these reporting standards should not be formally validated against the set of deactivated rules.

On June 2nd, 2023, the EBA published the technical package for phase 1 of version 3.3 of its reporting framework. The technical package provides standard specifications and includes the validation rules, the Data Point Model (DPM) and the XBRL taxonomies for this phase of version 3.3.

On June 12th, 2023, the EBA issued a revised list of validation rules in its Implementing Technical Standards (ITS) on supervisory reporting, highlighting those, which have been deactivated either for incorrectness or for triggering IT problems. Competent Authorities throughout the EU are informed that data submitted in accordance with these ITS should not be formally validated against the set of deactivated rules.

On June 21st, 2023, the European Banking Authority (EBA) published its final draft amending Implementing Technical Standards (ITS) on supervisory disclosures, which specify the format, structure, contents list and annual publication date of the supervisory information to be disclosed by competent authorities. The amended draft ITS incorporate the changes to the EU legal framework, in particular the changes related to supervisory reporting and investment firms.

ESG Disclosures

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 helps 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. The EBA has integrated proportionality measures that should facilitate institutions' disclosures, including transitional periods and the use of estimates. The first partial disclosure took place in early 2023 for the disclosure reference date as of the end of December 2022 and contained only but a part of the information required due to the phase-in of the guidelines. The next disclosure will refer to 30.06.2023 containig the same amount of information.

ESG disclosures for STS securitisations

On May 25th, 2023, the three European Supervisory Authorities (EBA, EIOPA and ESMA – ESAs) jointly submitted to the European Commission Draft Regulatory Technical Standards (RTS) on the ESG impact disclosure for Simple, Transparent and Standardised (STS) securitisations under the Securitisation Regulation (SECR). These final draft RTS aim to help market participants make informed decisions about the sustainability impact of their investments.

Recovery and Resolution

On May 15th, 2023, the SRB published its MREL dashboard for Q4.2022. The MREL dashboard presents the evolution of MREL targets and shortfalls for resolution (external MREL) and non-resolution entities (internal MREL) as well as the level and composition of resources of resolution entities in that quarter. In addition, it highlights recent developments in the cost of funding and provides an overview of gross issuances of MREL-eligible instruments in Q4.2022.

In May 2023, the SRB published its updated policy setting a Minimum Requirement for Own Funds and Eligible Liabilities (MREL), with minimal changes for 2023. The only change concerns the scope of entities subject to internal MREL. The SRB reduces the size of threshold for credit institutions considered as Relevant Legal Entities from EUR 10bn to EUR 5bn, keeping the other thresholds unchanged, from now on. In light of the deduction framework for intermediate entities recently introduced by Regulation 2022/2036, the SRB may also decide to set internal MREL for certain intermediate financial holdings companies not subject to prudential requirements after a case-by-case assessment, where it is deemed instrumental to ensure a sound execution of the resolution strategy. On June 13th, 2023, the European Banking Authority (EBA) published its Guidelines addressed to institutions and resolution authorities on resolvability testing. The Guidelines aim to set-out a framework to ensure that resolvability capabilities developed to comply with the resolvability and transferability Guidelines are fit for purpose and

On July 7th, 2023 the European Banking Authority (EBA) launched public consultation on amendments to the ITS on disclosures and reporting on MREL and TLAC. These amendments aim to reflect changes to the prudential framework that came or will soon come into force and provide clarifications on the information to be reported in the insolvency ranking templates. The consultation paper also includes an updated mapping between disclosure and reporting requirements. The consultation run until 18 August 2023.

The ITS introduce amendments to:

effectively maintained.

- information on the requirement to deduct investments in eligible liabilities instruments of entities belonging to the same resolution group ('daisy chain' framework),
- information on the prior permission regime for buying back eligible liabilities instruments issued by the reporting entities and groups, and
- the breakdown by insolvency ranking.

The amendments are expected to be implemented with a reference date of June 2024.

In August 2023, the Single Resolution Board (SRB) published its Minimum Requirement for Own Funds and Eligible Liabilities (MREL) dashboard for Q1.2023. The MREL dashboard presents the evolution of MREL targets and shortfalls for resolution (external MREL) and non-resolution entities (internal MREL) as well as the level and composition of resources of resolution entities in that quarter. In addition, it highlights recent developments in the cost of funding and provides an overview of gross issuances of MREL-eligible instruments in the first months of 2023.

Key findings:

- Banks continued to make progress in building up their levels of MREL, with, on average, increased reliance on senior debt for meeting their targets.
- For resolution entities, the average MREL final target including the Combined Buffer Requirement (CBR) was equal to 27.2% of the Total Risk Exposure Amount (TREA), increasing slightly with respect to the previous quarter.
- In aggregate terms, the total MREL shortfall (including the CBR)
 against final targets of both resolution and non-resolution
 entities continued to decrease, albeit at a slower pace
 compared to Q4.2022, respectively amounting to EUR 20.5 bn
 and EUR 9.1 bn.
- Banks under the SRB's remit issued EUR 117.7 bn of MRELeligible instruments, which was significantly higher compared to the previous quarter, as well compared to the same period of 2020-2022.
- After spiking in mid-March following the turmoil generated by the Silicon Valley Bank (SVB) and Credit Suisse crises, funding costs tightened from May onwards, allowing banks to benefit from favourable issuance conditions. Smaller issuers also took advantage of improved market conditions to return to the market. At the end of July, funding costs were hovering close to their level ahead of the turmoil showing that market confidence is being restored.

With the transition period nearing its end (1st January 2024), the SRB will continue monitoring the closing of the shortfall and the MREL funding conditions.

Countercyclical capital buffer rate for Greece: Q3 2023

On June 29th, the Bank of Greece informed that it shall keep the countercyclical capital buffer rate for Greece unchanged at "zero percent" (0%) in the third quarter of 2023, with effect from 1 July 2023. This rate was set for the first time in the first quarter of 2016 and has since remained zero.

NBG's TRANFORMATION PROGRAMME

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. Since its inception, 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 and is being delivered 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. The Board Strategy & Transformation Committee and the Board of Directors are updated on a regular basis, and closely monitor and oversee the Program's progress, key developments and plans, providing strategic direction as appropriate.

The Program is currently structured along specific Workstreams as follows:

- Best Bank for our Clients: Enhancement of income generation capacity through increasing focus on sales and servicing across all customer touchpoints in Corporate & Retail; market leadership in digital business and expansion of offering through strategic partnerships.
- Specialised Asset Solutions: New business setup capturing emerging opportunities in NPE ecosystem, and continued actions to maximize recoveries of legacy NPE portfolios.
- Efficiency & Agility: Rigorous control of staff costs, through capacity planning and targeted exit schemes, and non-staff costs, through continued spend discipline.
- Technology & Processes: Modernisation of technology infrastructure, including replacement of the Core Banking System ("CBS"), and reengineering of core processes, through centralisation and automation.
- People, Organization & Culture: Development, motivation and reward of our people through a modern HR framework, and enhancement of our culture in line with our purpose and values.
- Climate & Environment: Development of offering to address business opportunities from the transition of the economy, enhancement of practices in the management of climate & environmental risks, and adherence to the highest disclosure standards, including non-financial and ESG reporting.

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. From 2022 onwards, 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. With this approach, the Bank maintains its agility as new initiatives can be added to the Transformation Program, while existing ones can be adjusted or removed throughout the year, in line with business developments and strategic priorities.

Transformation Program priorities for 2023

During 2023, the Bank is pursuing the following strategic priorities:

- Best Bank for our Clients: 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 Mid-Cap and SME client base in Corporate banking;
 - In the case of Retail banking, we continue to pursue the strengthening of our relationship managers' frontline (primarily for the Small Business and Premium segments), a stronger focus on fee-generating products (e.g., investment products, cards and bancassurance), and further enhancement of sales capacity through third party partnerships (e.g., retailers, e-commerce, agents).
 - In the case of Corporate banking, we are strengthening the relationship managers' frontline with a comprehensive set of commercial tools, enabling them to spend more time on sales of lending and non-lending products in collaboration with the Corporate Transaction Banking ("CTB") unit.
 - Across Retail and Corporate, we are enhancing our range of solutions to enable the transition of households and businesses to a more sustainable model. A core part of our strategy remains to support Greek businesses in capturing opportunities in the context of the Recovery & Resilience Facility ("RRF"), including funding for investments in the context of green transition.
 - Across segments, advanced analytics use improves clients' targeting, while digital channels and strategic partnerships with third parties play an increasingly important role in onboarding, engaging, and selling to customers.
- Specialized Asset Solutions: Completing the clean-up of the Bank's balance sheet, targeting non-performing exposures of ~3% of gross loans by 2025, while retaining best-in-class capital ratios. Additionally, capturing new revenue generation opportunities in the emerging ecosystem of investors & servicers (e.g., acquisition financing, REOCo financing).
- Efficiency & Agility: Further enhancing efficiency and productivity, through continuous improvements in the Bank's business and operating model, and reducing areas of high external spend such as real estate, factoring in a flexible working model.
- Technology & Processes: 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 operating model across the organization; further optimizing core processes (both customer-facing and internal) through simplification, centralization, and automation levers (incl. the application of new technologies, such as RPAs, Al and OCR).
- People, Organization & Culture: Continuing to modernize HR processes and practices to attract, mobilise and incentivise our people; further developing talent through flagship leadership programs for high potential talent, coupled with "on demand"

NBG's TRANFORMATION PROGRAMME

learning and targeted curricula for priority roles; rolling out comprehensive actions to enhance the Bank's corporate culture and desired behaviours in line with our core values.

 Climate & Environment: Incorporating climate-related and environment considerations in the Bank's business strategy, including setting specific targets with respect to our direct and indirect GHG emissions, and capturing business opportunities in green, sustainable and transition finance.

Table 1: ESG related Transformation Program sub-initiatives

	Table 1: ESG related Transformation Program sub-initiatives
Sub-nitiative	Objectives
Net Zero ambition	 2022 Financed Emissions measurement; Financed Emissions methodology documentation & internal model for the calculation of proxies where required; Net Zero (scope 1 & 2) targets setting & approval by the ESG Management Committee; Net Zero (scope 3 incl. Financed Emissions) targets setting & approval by the ESG Management Committee; Net Zero Banking Alliance go / no-go decision.
EU Taxonomy implementation	 Eligibility Coverage Ratio calculation as at YE:2022; Methodology development for flagging 'Green' & 'Transition' financing; Business specs definition for systemically applying EU Taxonomy on Bank's back-book; Green Asset Ratio calculation as at YE:2023.
C&E Credit Risk Capabilities	 ESG scorecards testing to ensure provision of adequate risk-based info; C&E risks integration in lending policies; C&E credit risk classification & monitoring enhancement; Risk mitigation measures for collaterals (where appropriate); Incorporation of C&E risks into loan pricing (commercial margin).
C&E Scenario Analysis & Stress testing	 Gap analysis of toolkit and high-level roadmap for development of forward-looking Scenario Analysis & Stress Testing capabilities; Adoption of methodology for portfolio diversification and associated impact analysis, in conjunction with Net Zero targets; Execution of a set of forward-looking Climate risk Stress.
ESG Reporting Platform	 Systemic implementation of internal ESG reporting, with enhanced & tailored 'dashboards' for different managerial reporting needs; External reports & disclosure requirements' mapping and key metrics (and the calculation thereof) link on to the ESG Software solution being developed.
C&E Pillar 3 Disclosures	 Submission of Phase 1 C&E Pillar 3 templates in line with regulatory timeline as well as FY:2022 Financial results; Business Requirements for systemic implementations to IT infrastructure for Phase 1; Identification of C&E Pillar 3 quantitative & qualitative requirements, data gaps and data owners for phase 2, decide for proxies for phase 2 missing information; Specifications completion for systemic implementations serving Pillar 3 phase 2 and subsequent submissions; Identification of C&E Pillar 3 quantitative & qualitative requirements, data gaps and data owners for phase 3, decision for proxies for phase 3 missing information.
C&E Combined Risk reporting	 Enterprise-level C&E risk reporting (primarily for internal purposes) to enable the holistic monitoring and control of C&E KRIs (phased-in approach, leveraging across risk types).
ESG data architecture	 Functionality implementation in EDW to support data needs of H1:2023 Pillar 3 C&E disclosures; Design of homogenized ESG reporting architecture and initiation of building thereof; Implementation of centralized capability in EDW to address ESG data requirements ensuring data availability and scalability for future needs.
Climate & Environment awareness	 Completion of Climate and Environmental awareness course to Top Management and ESG working teams.

4 REGULATORY OWN FUNDS & PRUDENTIAL REQUIREMENTS

4.1 Key metrics

The following table presents an overview of Group's prudential regulatory metrics.

Table 2: EU KM1 – Key metrics template

Key Metrics								€m
	Q2 23	Q2 23*	Q1 23	Q1 23*	Q4 22*	Q3 22	Q3 22*	Q2 22
Available own funds (amounts)								
1 Common Equity Tier 1 (CET1) capital	5,77	6,332	5,753	6,040	6,047	5,451	5,670	5,52
2 Tier 1 capital	5,77		5,753	6,040	6,047	5,451	5,670	5,52
3 Total capital Risk-weighted exposure amounts	6,17	6 6,732	6,153	6,439	6,446	5,850	6,069	5,92
4 Total risk-weighted exposure amounts	36 56	9 36,695	36 455	36 520	36 368	35 011	35.061	35.0
	30,30	30,093	30,433	30,320	30,308	33,011	33,001	33,0
Capital ratios (as a percentage of risk-weighted exposure amount)								
5 Common Equity Tier 1 ratio (%) 6 Tier 1 ratio (%)		% 17.26% % 17.26%						
7 Total capital ratio (%)		% 17.20% % 18.35%						
Additional own funds requirements to address risks other than the risk of exces	sive leverage (a	s a percen	tage of r	isk-weigh	ited exp	osure an	nount)	
EU 7a Additional own funds requirements to address risks other than the risk of excessive levera	ge (%) 3.00	% 3.00%	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%	1.69%	1.69
EU 7c of which: to be made up of Tier 1 capital (percentage points)		% 2.25%						
EU 7d Total SREP own funds requirements (%)	11.00	% 11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00
Combined buffer requirement (as a percentage of risk-weighted exposure amount)								
8 Capital conservation buffer (%)		% 2.50%			2.50%	2.50%	2.50%	2.50
9 Institution specific countercyclical capital buffer (%)	0.03				0.03%	- 250/	- 250/	-
U 10a Other Systemically Important Institution buffer 11 Combined buffer requirement (%)	3.53	% 1.00% % 3.53%			0.75% 3.28%	0.75% 3.25%	0.75% 3.25%	0.75 3.25
U 11a Overall capital requirements (%)		% 3.33% % 14.53%						
12 CET1 available after meeting the total SREP own funds requirements (%)		% 14.55% % 7.35%				5.71%		
Leverage Ratio								
13 Total exposure measure	73,48	5 73,536	75,830	75,856	78,797	81,146	81,166	80,05
14 Leverage ratio (%)	7.86	% 8.61%	7.59%	7.96%	7.67%	6.72%	6.99%	6.90
Additional own funds requirements to address the risk of excessive leverage (as	a percentage o	f total exp	osure m	easure)				
U 14a Additional own funds requirements to address the risk of excessive leverage (%)	0.00			0.00%	0.00%	0.00%	0.00%	0.00
U 14b of which: to be made up of CET1 capital (percentage points)	0.00			0.00%	0.00%	0.00%	0.00%	0.00
U 14c Total SREP leverage ratio requirements (%)		% 3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00
Leverage ratio buffer and overall leverage ratio requirement (as a percentage o								
U 14d Leverage ratio buffer requirement (%)		0.00%			0.00%		0.00%	0.00
U 14e Overall leverage ratio requirements (%) Liquidity Coverage Ratio	3.00	% 3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00
	22.75	2 22 752	22.620	22.620	22.470	22.070	22.070	22.6
 Total high-quality liquid assets (HQLA) (Weighted value - average) Total net cash outflows (adjusted value) 		2 23,752 9,166						8.89
17 Liquidity coverage ratio (%)	•	1%259.84%	,	,	,	,	,	-,
Net Stable Funding Ratio								
18 Total available stable funding	57,28	9 57,289	56,223	56,223	56,275	58,811	59,010	57,68
19 Total required stable funding		38,383						
20 NSFR ratio (%)	149.2	5%149.25%	6146.509	6146.50%	146.30%	6143.349	6143.829	6141.6

st including profit for the period

4.2 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 3: EU CC2- Reconciliation of regulatory own funds to balance sheet in the audited financial statements

		30 June	2023	31 December 2022			
€ 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 consolidatio		
ASSETS							
Cash and balances with central banks		7,551	7,551	14,226	14,22		
Due from banks		2,735	2,735	2,900	2,9		
Financial assets at fair value through profit or loss		718	718		3		
Derivative financial instruments		1,905	1,905	1,962	1,9		
Loans and advances to customers		34,976	34,976		35,5		
Investment securities	d	15,114	15,114	13,190	13,1		
Investment property		68	68	71			
Investments in subsidiaries		0	0				
Equity method investments	c, d	176	176		1		
Software	С	481	481	431	4		
Property and equipment		1,561	1,561	1,565	1,5		
Deferred tax assets (DTAs)		4,508	4,508	4,705	4,7		
of which: DTAs that rely on future profitability and arise from temporary differences	е	701	701	792	7		
of which: DTAs that rely on future profitability and do not arise from temporary differences	f	3	3	3			
of which: DTAs that do not rely on future profitability		3,804	3,804	3,910	3,9		
Current tax asset		225	225	208	2		
Other assets		2,388	2,388	2,229	2,2		
Non-current assets held for sale		443	443	495	4:		
Total assets		72,849	72,849	78,113	78,11		
LIABILITIES							
Due to banks	<u>-</u>	3,374	3,374	9,811	9,8		
Derivative financial instruments		1,883	1,883	1,923	1,9		
Due to customers		55,671	55,671	55,192	55,1		
Debt securities in issue		1,793	1,793	1,731	1,7		
Other borrowed funds		69	69	63			
Deferred tax liabilities		15	15	16			
Retirement benefit obligations		225	225	248	2		
Current income tax liabilities		4	4	2			
Other liabilities		2,731	2,731		2,6		
Liabilities associated with non-current assets held for sale	<u>.</u>	- 25	25	25	-		
Total liabilities		65,790	65,790	71,638	71,6		
SHAREHOLDERS' EQUITY							
Share capital		915	915	915	ç		
Share premium account		3,542	3,542	3,542	3,5		
Less: treasury shares		0	0	0			
Reserves and retained earnings		2,578	2,578		1,9		
Equity attributable to NBG shareholders	а	7,035	7,035		6,4		
Non-controlling interests	b	- 24	24	-	_		
Total equity		7,059	7,059	6,475	6,4		
			72,849				

4.3 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 575/201;
- 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 €399 million.

The following table presents the analysis of NBG Group's regulatory capital structure.

Table 4: Own Funds Structure

Group's Own Funds Structure (€ mio)	Q2 23	Q2 23*	Q1 23	Q1 23*
Shareholders' Equity per balance sheet	7,035	7,035	6,741	6,741
Non-controlling interests	12	12	13	13
Non-controlling interests per balance sheet	24	24	24	24
Non-controlling interests not recognized in CET1	(12)	(12)	(11)	(11)
Regulatory Adjustments	(666)	(161)	(383)	(123)
Profit for the period not eligible	(530)	0	(260)	0
IFRS9 transitional arrangements	0	0	10	10
Own credit risk	(29)	(29)	(33)	(33)
Prudent valuation adjustment	(12)	(12)	(11)	(11)
Cash flow hedging reserve	(1)	(1)	(1)	(1)
Other regulatory adjustments	(94)	(119)	(88)	(88)
Deductions	(605)	(554)	(617)	(591)
Goodwill and other intangibles	(493)	(493)	(456)	(456)
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	(3)	(3)	(3)	(3)
Deferred tax assets that rely on future profitability and arise from temporary differences	(109)	(58)	(158)	(132)
Common Equity Tier 1 Capital (CET1)	5,776	6,332	5,754	6,040
Additional Tier 1 Capital (AT1)	0	0	0	0
Total Tier 1 Capital	5,776	6,332	5,754	6,040
Capital instruments and subordinated loans eligible as Tier 2 Capital	400	400	399	399
Deductions	0	0	0	0
Tier 2 Capital	400	400	399	399
Total Regulatory Capital	6,176	6,732	6,153	6,439

^{*} Including profits for the period

4.4 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 were 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 transitional period ended on 1 January 2023 and the full impact of IFRS9 is included in Q1.23 and onwards own funds.

In addition, according to the amendments of IFRS9 transitional arrangements due to CRR II "quickfix", transitional period was 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"), was moved to 1 January 2020 and the CET1 add-back percentages for the new ECL provisions recognized in 2020 were 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) was 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 5: IFRS 9 impact

Comparison of own funds, capital ratios and leverage ratios with and without the								Consis
application of transitional arrangements for IFRS 9 or analogous ECLs	Q2 23	Q2 23*	Q1 23	Q1 23*	Q4 22*	Q3 22	Q3 22*	€ mio Q2 22
Available capital (amounts)								
Common Equity Tier 1 (CET1) capital Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5,776 5,776	6,332 6,332	5,753 5,743	6,040 6,030	6,047 5,665	5,451 5,084	5,670 5,302	5,524 5,156
Tier 1 capital Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied Total capital Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5,776 5,776 6,176 6,176	6,332 6,332 6,732 6,732	5,753 5,743 6,153 6,143	6,040 6,030 6,439 6,429	6,047 5,665 6,446 6,064	5,451 5,084 5,850 5,483	5,670 5,302 6,069 5,702	5,524 5,156 5,923 5,555
Risk-weighted assets (amounts)								
Total risk-weighted assets Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	36,569 36,569	36,695 36,695	36,455 36,445	36,520 36,510	36,368 36,188	35,011 34,846	,	
Capital ratios								
Common Equity Tier 1 (as percentage of risk exposure amount)	15.80%	17.26%	15.78%	16.54%	16.63%	15.57%	16.17%	15.75%
Common Equity Tier 1 (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	15.80%	17.26%	15.76%	16.52%	15.65%	14.59%	15.19%	14.77%
Tier 1 (as percentage of risk exposure amount)	15.80%	17.26%	15.78%	16.54%	16.63%	15.57%	16.17%	15.75%
Tier 1 (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	15.80%	17.26%	15.76%	16.52%	15.65%	14.59%	15.19%	14.77%
Total capital (as percentage of risk exposure amount)	16.89%	18.35%	16.88%	17.63%	17.72%	16.71%	17.31%	16.88%
Total capital (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applieds	16.89%	18.35%	16.86%	17.61%	16.76%	15.73%	16.34%	15.91%
Leverage ratio								
Leverage ratio total exposure measure Leverage ratio Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	73,485 7.86% 7.86%	73,536 8.61% 8.61%	75,830 7.59% 7.58%	75,856 7.96% 7.95%	78,797 7.67% 7.21%	81,146 6.72% 6.28%	81,166 6.99% 6.55%	80,056 6.90% 6.45%

^{*} Including profits for the period

4.5 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 preemption 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 (see Note 27 "Deferred tax assets and liabilities" of the Annual Financial Report for the year ended 31 December 2022).

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 30 June 2023, the amount of DTAs that were eligible for conversion to a receivable from the Greek State subject to the DTC Law was €3.8 billion (31 December 2022: €3.9 billion). The conditions for conversion rights were not met in the year ended 31 December 2022 and no conversion rights are deliverable in 2023.

4.6 Transitional own funds

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.

Table 6: EU CC1 - Transitional Own Funds 30.06.2023

	Transitional own funds disclosure template as of 30.06.2023	€ mio	€ mio*	ref
	Common Equity Tier 1 capital: Instruments and Reserves			
1	Capital instruments and the related share premium accounts	4,457	4,457	а
_	of which: ordinary shares	4,457	4,457	
2	Retained earnings Accumulated other comprehensive income and other reserves	2,102 461	2,102 461	
EU-	Funds for general banking risk	15	15	
3a 5	Minority Interests (amount allowed in consolidated CET1)	12		b
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	7,047	7,047	
	Common Equity Tier 1 capital: Regulatory Adjustments			
7	Additional Value Adjustments	(12)	(12)	
8	Intangible assets (net of related tax liability)	(493)	(493)	
9 10	Part of interim or year-end profit not eligible Deferred tax assets that rely on future profitability excluding those arising from temporary differences	(530) (3)	0 (3)	
11	Fair value reserves related to gain or losses on cash flow hedges	(1)	(1)	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	0	0	
16	Direct and indirect holdings by an institution of own CET1 instruments	0	0	
19	CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above	0	0	
	10% threshold)	(100)		
21 22	Deferred tax assets arising from temporary differences (amount above 10% threshold) Amount exceeding the 17.65% threshold	(109) 0	(58) 0	
22	Of which: deferred tax assets arising from temporary differences	0	0	
27a	Other regulatory adjustments	(123)	(148)	
28	Total regulatory adjustments to Common equity Tier 1 (CET1)	(1,271)	(715)	
29	Common Equity Tier 1 (CET1) capital	5,776	6,332	
	Additional Tier 1 (AT1) capital			
36	Additional Tier 1 (AT1) capital before regulatory adjustments	0	0	
	Additional Tier 1 (AT1) capital:			
43	regulatory adjustments Total regulatory adjustments to Additional Tier 1 (AT1) capital	0	0	
44	Total regulatory adjustments to Additional Tier 1 (AT1) capital Additional Tier 1 (AT1) capital	0	0	
45	Tier 1 capital (T1 = CET1 + AT1)	5,776	6,332	
	Tier 2 (T2) capital			
46	Capital instruments and the related share premium accounts	400	400	
51	Tier 2 capital (T2) capital before regulatory adjustments	400	400	
	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	0	0	
	institution has a significant investment in those entities			
57	Total regulatory adjustments to Tier 2 (T2) capital	0	0	
58 59	Tier 2 (T2) capital Total capital (TC = T1 + T2)	400 6,176	400 6,732	
60	Total risk exposure amount	36,569	36,695	
	Capital Adequacy Ratios	30,303	%	
61	Common Equity Tier 1	15.80%	17.26%	
62	Tier 1	15.80%	17.26%	
63	Total capital	16.89%	18.35%	
64	Institution CET1 overall capital requirement	9.72%	9.72%	
65	of which: capital conservation buffer requirement	2.50%	2.50%	
66	of which: countercyclical capital buffer requirement	0.03%	0.03%	
67	of which: systemic risk buffer requirement	0.00%	0.00%	
EU- 67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	1.00%	1.00%	
EU-	of which, additional own finds appring a partiagness to address the viets of how the viet of overseins language	1 600/	1 60%	
67b	of which: additional own funds requirements to address the risks other than the risk of excessive leverage	1.69%	1.69%	
68	Common Equity Tier 1 available after meeting the minimum capital requirements	5.89%	7.35%	
	Amounts below the thresholds for deduction (before risk weighting)			
72	Direct and indirect holdings of own funds and eligible liabilities of financial sector entities where the institution does not have a	286	286	
	significant investment in those entities (amount below 10% threshold and net of eligible short positions Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a			
73	significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	35	35	d
75	Deferred tax assets arising from temporary differences (amount below 17.65% threshold, net of related tax liability where the	591	642	P
	conditions in Article 38 (3) are met)	J J I	0-12	-

 Table 6: EU CC1 - Transitional Own Funds 31.12.2022

Transit	ional own funds disclosure template as of 31.12.2022	€ mio	re
Commo	n Equity Tier 1 capital: Instruments and Reserves		
1	Capital instruments and the related share premium accounts	4,457	
	of which: ordinary shares	4,457	
2	Retained earnings	1,553	
3	Accumulated other comprehensive income and other reserves	427	
EU-3a	Funds for general banking risk	15	
5 6	Minority Interests (amount allowed in consolidated CET1) Common Equity Tier 1 (CET1) capital before regulatory adjustments	12 6,464	
	n Equity Tier 1 capital: Regulatory Adjustments	0,404	
7	Additional Value Adjustments	(11)	
8	Intangible assets (net of related tax liability)	(433)	
9	Part of interim or year-end profit not eligible	-	
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences	(3)	
11	Fair value reserves related to gain or losses on cash flow hedges	0	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	0	
16	Direct and indirect holdings by an institution of own CET1 instruments	0	
19	CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above	0	
21	10% threshold) Deferred tax assets arising from temporary differences (amount above 10% threshold)	(203)	
27a	Other regulatory adjustments	233	
28	Total regulatory adjustments to Common equity Tier 1 (CET1)	(417)	
29	Common Equity Tier 1 (CET1) capital	6,047	
Additio	nal Tier 1 (AT1) capital		
36	Additional Tier 1 (AT1) capital before regulatory adjustments	0	
Additio	nal Tier 1 (AT1) capital: regulatory adjustments		
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	0	
44	Additional Tier 1 (AT1) capital	-	
45	Tier 1 capital (T1 = CET1 + AT1)	6,047	
Tier 2 (T	2) capital		
46	Capital instruments and the related share premium accounts	399	
51	Tier 2 capital (T2) capital before regulatory adjustments	399	
Tier 2 (T	2) capital: Regulatory adjustments		
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the	0	
	institution has a significant investment in those entities	U	
57	Total regulatory adjustments to Tier 2 (T2) capital	0	
58	Tier 2 (T2) capital	399	
59	Total capital (TC = T1 + T2)	6,446	
60	Total risk exposure amount	36,368	
	Adequacy Ratios		%
	Common Equity Tier 1	16.63%	
62 63	Tier 1 Total capital	16.63% 17.72%	
64	Institution CET1 overall capital requirement	9.47%	
65	of which: capital conservation buffer requirement	2.5%	
	of which: countercyclical capital buffer requirement		
66 67	of which: systemic risk buffer requirement	0.03% 0.00%	
	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0.75%	
	of which: additional own funds requirements to address the risks other than the risk of excessive leverage	1.69%	
68	Common Equity Tier 1 available after meeting the minimum capital requirements	6.72%	
	ss below the thresholds for deduction (before risk weighting)		
	Direct and indirect holdings of own funds and eligible liabilities of financial sector entities where the institution does not have a		
72	significant investment in those entities (amount below 10% threshold and net of eligible short positions	406	
72	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a	24	
73	significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	34	
75	Deferred tax assets arising from temporary differences (amount below 17.65% threshold, net of related tax liability where the	589	
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)	5	89

4.7 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 30.06.2023 and 31.03.2023, 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 85.4% Credit (including Counterparty Credit Risk), 6.0% Market and 8.7% Operational RWAs, respectively.

On a quarterly basis total Group RWAs increased by €114mio to €36.6Bn. Credit RWAs remained almost stable (+€22mio) while Market RWAs rose by €92mio.

Table 7: EU OV1 - Overview of RWAs

	Table 7: EU OV1 - Overview	VOIKWAS		
	Overview of RWAs	RWA	As	Minimum Capital Requirements
		30.06.23	31.03.23	30.06.23
1	Credit risk (excluding CCR)	30,589	30,619	2,447
2	Of which the standardised approach	30,589	30,619	2,447
3	Of which the foundation IRB (FIRB) approach			
4	Of which: slotting approach			
EU 4a	Of which: equities under the simple riskweighted approach			
5	Of which the advanced IRB (AIRB) approach			
6	Counterparty credit risk – CCR	675	625	54
7	Of which the standardised approach	443	417	35
8	Of which internal model method (IMM)			
EU 8a	Of which exposures to a CCP	8	8	1
EU 8b	Of which credit valuation adjustment-CVA	224	199	18
9	Of which other CCR	1	1	0
15	Settlement risk			
16	Securitisation exposures in the non-trading book (after the cap)	160	134	13
17	Of which SEC-IRBA approach			
18	Of which SEC-ERBA (including IAA)	84	58	7
19	Of which SEC-SA approach	75	75	6
EU 19a	Of which 1250%/ deduction			
20	Position, foreign exchange and commodities risks (Market risk)	1,967	1,900	157
21	Of which the standardised approach	335	298	27
22	Of which IMA	1,632	1,602	131
EU 22a	Large exposures			
23	Operational risk	3,178	3,178	254
EU 23a	Of which basic indicator approach			
EU 23b	Of which standardised approach	3,178	3,178	254
EU 23c	Of which advanced measurement approach			
24	Amounts below the thresholds for deduction (subject	4 565	4 567	435
24	to 250% risk weight) (For information)	1,565	1,567	125
29	Total	36,569	36,455	2,926

4.8 Overall Capital Requirement (OCR)

According to the ECB decision it is required for National Bank of Greece to maintain, on a 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 (P2R) of 3% to be maintained at all times in accordance with Article 16(2)(a) of Regulation (EU) No 1024/2013, to be covered at least by CET1 capital by 56.25% and by Tier 1 capital by 75%.

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 (CB) requirement is defined as the sum of:

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

The Capital Conservation Buffer stands at 2.5% for all banks in the $\ensuremath{\text{EU}}.$

The systemic risk is 0% and the systemically important institutions buffer for 2023 is 1.0% for all four systemically important banks in Greece

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 and set the CCyB at 0% for Greece throughout 2018-2022 according to its quarterly decisions, as well as the first half of 2023. CCyB is also currently 0% in all other countries in which NBG Group has significant exposures apart from country Great Britain (GB) where CCyB stands at 1% for Q2 2023.

Thus, the institution specific Countercyclical Capital Buffer for NBG Group is currently 0.028%, as depicted in the following table.

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

	а
Total risk exposure amount	36,569
Institution specific countercyclical capital buffer rate	0.028%
Institution specific countercyclical capital buffer requirement	10

NBG's total capital requirement for 2023 have been set to 14.53%. The stacking order of the various own funds requirements for 2023 is shown in the figure below.

Total capital requirements 2023



Figure 2: Stacking order of own funds requirements

On June 30, 2023, NBG Group's CET1 capital ratio and Total capital ratio stood at 15.8% and 16.9% respectively (including profit for the period 17.3% and 18.4% respectively), well above the required capital requirement of 9.72% for CET1 Capital and of 14.53% for Total Capital.

The table below presents figures of credit and market exposures relevant for the calculation of the Countercyclical Capital Buffer for 30.06.2023 broken down by country.

	a	b	С	d	е	f	g	h	i	j	k	l I	m
	General Cred	it Exposures		nt Credit - Market Risk	Securitisatio n exposures			Total e	xposure value				
	Exposure value under the standardised approach	under the IRE	1 4	trading book exposures	Exposure value for non-trading book	otal exposure value	Relevant credit risk exposures - Credit risk	credit exposure – Market	Relevant credit exposures – Securitisation positions in the on-trading book	Total	Risk-weighted exposure amounts	Own fund equirements weights (%)	Counter cyclical buffe rate (%)
Breakdown by count	ry												
Greece	79,906	0	55	0	93	80,054	1,604	4	13	1,621	20,267	84.20%	0.00%
North Macedonia	1,581	0	0	0	0	1,581	81	0	0	81	1,007	4.18%	0.00%
Marshall Islands*	1,230	0	0	0	0	1,230	98	0	0	98	1,229	5.11%	0.00%
Liberia*	888	0	0	0	0	888	71	0	0	71	887	3.69%	0.00%
Great Britain	536	0	0	0	0	536	54	0	0	54	680	2.83%	1.00%
Total	8/1 1/11	0	55	Λ	03	84 280	1 009	1	12	1 026	24.070	_	-

Table 9: EU CCyB1 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer 30.06.2023

4.9 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 22 December 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 23.53% of TREA and 5.88% of LRE on a consolidated basis. In addition, as per the MREL decision the Bank should always meet from 1 January 2022 onwards, the requirement 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 will stand at 3.53% from 1 January 2023 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 2023 no subordination requirement is set for the Bank.

^{*} Exposures to Marshall Islands and Liberia are related to ocean shipping only.

4.10 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 30.06.2023 and 31.03.2023 (amounts in € mio):

Table 10: Leverage ratio

Leverage Ratio	Q2 23	Q2 23*	Q1 23	Q1 23*
Tier I	5,776	6,332	5,753	6,040
Total Exposure Measure	73,485	73,536	75,830	75,856
Leverage Ratio	7.86%	8.61%	7.59%	7.96%

^{*} including profit for the period

During the second quarter of 2023, the Group's leverage ratio increased by 0.3% to 7.9%, standing well above the proposed minimum threshold of 3%, mainly due to total leverage exposures decrease by €2.3Bn as a result of reduction of Deposits to BoG (-€2.4Bn). Respective ratio including profits of the period at 8.6% incorporating also q-o-q profitability (+40bps).

The following tables include the detailed disclosures on the Group's leverage ratio with reference date 30.06.2023 and 31.12.2022 (amounts in € mio):

Table 12: EU LR3, LRSpl – Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) as of 30.06.2023 compared to 31.12.2022

CRR lev	verage ratio exposures	Q2 23	€ mio Q4 22
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	66,585	71,285
EU-2	Trading book exposures	1,101	687
EU-3	Banking book exposures, of which:	65,484	70,598
EU-4	Covered bonds	-	-
EU-5	Exposures treated as sovereigns	31,172	36,892
	Exposures to regional governments, MDB,		
EU-6	international organisations and PSE not	792	762
	treated as sovereigns		
EU-7	Institutions	1,896	1,616
EU-8	Secured by mortgages of immovable properties	8,697	8,852
EU-9	Retail exposures	2,852	2,863
EU-10	Corporate	14,377	,
EU-11	Exposures in default	1,222	1,236
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	4,476	4,274

Table 11: EU LR1, LRSum – Summary reconciliation of accounting assets and leverage ratio exposures as of 30.06.2023 and 31.12.2022

€ mio		Applicable amount Q2 23	Applicable amount Q4 22
1	Total assets as per published financial statements	72,849	78,113
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	0	0
3	(Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	0	0
4	(Adjustment for temporary exemption of exposures to central bank (if applicable))	0	0
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)	0	0
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	0	0
7	Adjustment for eligible cash pooling transactions	0	0
8	Adjustments for derivative financial instruments	(960)	(1,012)
9	Adjustment for securities financing transactions (SFTs)	303	324
10	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	2,529	2,540
11	(Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)	0	0
EU-11a	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)	0	0
EU-11b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (j) of Article 429a(1) CRR)	0	0
12	Other adjustments	(1,236)	(1,168)
13	Leverage ratio Total exposure measure	73,485	78,797

5 CREDIT RISK

5.1 **Definitions and general information**

The Group has aligned the definition of default for financial reporting purposes, with the NPE definition used for regulatory purposes, as per the EBA ITS, thus a financial asset is considered as credit impaired, and is classified into Stage 3, when it is classified as NPE in accordance with the Group's NPE and Forbearance Classification Policy. Furthermore, EBA published the Final Guidelines (EBA/GL/2016/07) on the application of the definition of default under Article 178 of Regulation (EU) No. 575/2013 and Regulation (EU) 2018/1845 of the European Central Bank (ECB), in relation to the threshold for assessing the materiality of credit obligations past due, 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, being applied from 1 January 2021.

The new definition of default results in classification of exposures (except for those held for trading or debt securities where the borrower has no other exposures with the Group) into Stage 3 according to the following main criteria:

- A. Unpaid payments of over €100 for Retail €500 for Non-retail for more than 90 consecutive days, representing at least 1% of the total exposure of the obligor. For the Corporate portfolio, the assessment takes place at obligor level across the Group, as opposed to a facility level assessment for Retail exposures. In case of credit cards, the exposure is considered non-performing in case of more than three (3) unpaid monthly instalments. Only missed payments related to business litigations, specific contractual features or IT failures (i.e. 'technical past due' situations) may avoid automatic transfer into Stage 3 after 90 days.
- B. A 3-month probation period for non-forborne exposures, during which no default trigger applies.
- C. Identification of other criteria that evidence, even in the absence of missed payments, that it is unlikely that the counterparty could meet all its financial obligations (UTPs), including indicatively the following:
 - the granting of concessions towards obligors facing or about to face difficulties in meeting their financial commitments that result in a decrease in the present value of cash flows of more than 1% of its initial value (a distressed restructuring resulting in a diminished financial obligation);
 - the partial or full sale of credit obligations at a material credit-related economic loss, i.e. >5%;
 - losses recognised in the Income Statement for instruments measured at fair value that represent credit risk impairment.

A commitment is regarded as NPE if, when withdrawn or otherwise used, it would lead to exposures that present a risk of not being paid back in full without realisation of collateral. Financial guarantees written by the Bank are regarded as NPE for their nominal value when the financial guarantee is at risk of being called by the holder of the guarantee, including, in particular, when the underlying guaranteed exposure meets the criteria to be considered as NPE.

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.

5.2 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 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 drawdowns.

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 collateralized 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 or not.

The ECL calculations are based on the following factors:

- Exposure at Default ("EAD"): This is an estimate of the exposure at a future default date, taking into account expected changes in the exposure after the reporting date, including repayments of principal and interest, and expected drawdowns on committed facilities.
- Probability of Default ("PD"): Represents the likelihood of a borrower/issuer defaulting on its financial obligation, assessed on the prevailing economic conditions at the reporting date, adjusted to take into account estimates of future economic conditions that are likely to impact the risk of default either over the next 12 months for Stage 1 financial assets, or over the remaining lifetime, for Stage 2 financial assets.
- Loss given default ("LGD"): Represents the Group's expectation of the extent of loss on a defaulted exposure. The LGD varies by type of counterparty, type and seniority of claim and availability of collateral or other credit support. The determination of LGD takes into account expected future cash flows from collateral and other credit enhancements or expected payouts from bankruptcy proceedings for unsecured claims and, where applicable, time to realization of collateral and the seniority of claims. LGD is expressed as a percentage loss per unit of EAD.
- Discount Rate: The implied discount factor based on the original EIR of the financial asset or an approximation thereof.

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.

The Group recognizes an ECL allowance on irrevocable commitments to extend credit, financial guarantee contracts (LGs) and letters of credit (LCs), on the date that the Group becomes a party to the irrevocable commitment. No ECL allowance is recognized on revocable loan commitments, as such commitments do not meet the definition of a financial instrument. For revolving lending exposures (i.e. facilities that include both a loan and a revocable undrawn commitment component), the EAD represents the expected balance at default, taking into account any expected drawdowns, based on the Group's historical experience. The ECL allowance on financial guarantees and letters of credit written by the Group, is based on the Credit Conversion Factor ("CCF") applicable to the relevant financial instrument type, which converts the off-balance sheet amount to an EAD amount.

The Bank has initiated the process of enhancing its credit risk assessment process, incorporating climate and environmental factors for the purposes of evaluating borrower's risk of default and ultimately the ECL calculation. Acknowledging the importance and potential impact of Environmental, Social and Governance (ESG) risks, the Bank has proceeded with the identification and materiality assessment of such risks and their incorporation in the overall risk management framework, and is committed to monitoring, assessing and managing the particular risks going forward. To that end, in alignment with relevant supervisory expectations and good market practices, the Bank, through a set of initiatives, is planning to further enhance the incorporation of ESG factors in its Risk Management Framework (including link with borrower's default risk and ECL) as methodological approaches mature, quantification and analytical capabilities develop and additional climate and environmental data become available.

Management adjustments to expected credit losses

Management adjustments may be performed to factor in certain conditions and circumstances prevailing at the reporting date which are not fully captured into the ECL models, based on management judgment. These relate to post-model adjustments ("PMAs") to the ECL model output which are calculated and allocated at a granular level following relevant risk assessment and analysis, resulting in either an increase or a decrease in the total ECL allowance, and to in-model adjustments to model inputs.

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.

The main macroeconomic variables utilized by the Group, affecting the level of ECL are the following:

- GDP growth rate
- House price index (HPI)

Significant increase of credit risk

A financial asset is classified as Stage 2 when a SICR since its 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 on the individual financial instrument level by 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.

5.3 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 30.06.2023 and 31.12.2022.

Table 13: EU CR1 A - Maturity of exposures 30.06.2023

	а	b	С	d	е	f
Exposure		_	Net expos	ure value	9	_
Class	On	<= 1	> 1 year	> 5	No stated	Total
	demand	year	<= 5 years	years	maturity	
Loans and						
Advances	859	5,630	12,572	18,449		37,511
Debt						
Securities		5,923	978	8,088		14,988
Total	859	11,553	13,550	26,537		52,499

Table 13: EU CR1 A – Maturity of exposures 31.12.2022

	а	b	С	d	е	f
Exposure			Net expos	ure value	9	
Class	On	<= 1	> 1 year	> 5	No stated	Total
	demand	year	<= 5 years	years	maturity	
Loans and						
Advances	843	5,687	12,800	18,905	0	38,235
Debt						
Securities		7,173	546	5,376	0	13,095
Total	843	12,860	13,346	24,280	0	51,330

5.4 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.

5.4.1 Disposal of NPE portfolios

Project "Frontier II"

On 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 the Hellenic Asset Protection Scheme ("Hercules II", see below). The Project "Frontier II" accounted for c. €1.0 billion, in terms of gross book value as of 31 December 2021. The portfolio consists of predominantly secured Large Corporate, Small and Medium Enterprises ("SMEs"), Small Business Lending ("SBL"), Mortgage Loans and Consumer Loans.

On 29 June 2022, the Bank announced the submission of the application under Hercules II, for the securitisation of Project "Frontier II". The application relates to the provision of a guarantee by the Greek State on the senior notes of an amount up to €460 million.

Subsequently, on 29 July 2022, the Bank announced that it has entered into a definitive agreement with funds managed by Bracebridge Capital LLC, for the sale of 95% of the Mezzanine and Junior notes. NBG will retain the 100% of the Senior notes and 5% of the Mezzanine and Junior notes.

The transaction is estimated to be completed within the 2H.23, subject to required approvals.

The transaction is being implemented in the context of the Bank's NPE deleveraging strategy and is in line with the targets submitted to the SSM.

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 the Bank's leasing portfolio (ex-FBB) and the sale of NBG Leasing S.A. lease portfolio. The gross book value of the Bank's and NBG Leasing's leasing portfolios, as of 30 June 2023, amounted to €33 million.

On 25 May 2023, the Bank entered into a definitive agreement and the closing of the transaction is expected to be completed within the 2H.23.

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.

In August 2022, the Bank together with the other Greek financial institutions submitted to the Greek Ministry of Finance a joint application for inclusion of the senior notes to be issued in the context of the Solar Securitization in the HAPS scheme.

The transaction is expected to be completed within the 2H.23, subject to required approvals.

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

Table 14: EU CQ1 - Credit quality of forborne exposures 30.06.2023

		а	b	С	d	е	f	g	h
			-	nt/ nominal an rbearance mea		Accumulated	dimpairment		received and financial s received on forborne exposures
		Performing forborne	No	n performing fo Of which defaulted	orborne Of which impaired	On performing forborne exposures	On non- performing forborne exposures		Of which collateral and financial guarantees received on non- performing exposures with forbearance measures
005	Cash balances at central banks and other demand deposits	0	0	0	0	0	0	0	0
010	Loans and advances	1,796	832	832	832	(161)	(383)	1,830	419
020	Central Banks	0	0	0	0	0	0	0	0
030	General Governments	19	6	6	6	(8)	(5)	12	1
040	Credit Institutions	0	0	0	0	0	0	0	0
050	Other Financial Corporations	11	1	1	1	(3)	0	8	1
060	Non-Financial Corporations	350	473	473	472	(56)	(259)	372	190
070	Households	1,417	353	353	353	(94)	(119)	1,438	227
080	Debt Securities	0	0	0	0	0	0	0	0
090	Loan Commitments given	0	0	0	0	0	0	0	0
100	Total	1,796	832	832	832	(161)	(383)	1,830	419

 Table 14: EU CQ1 - Credit quality of forborne exposures 31.12.2023

		a	b	С	d	e f		g	h
			-	nt/ nominal an rbearance mea		Accumulated i	mpairment		received and financial s received on forborne exposures
		Performing forborne	Noi	n performing fo Of which defaulted	orborne Of which impaired	On performing forborne exposures	On non- performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
305	Cash balances at central banks and other demand deposits	0	0	0	0	0	0	0	0
010	Loans and advances	2,082	831	831	831	(160)	(397)	2,057	394
920	Central Banks	0	0	0	0	0	0	0	0
230	General Governments	19	6	6	6	(2)	(4)	19	2
240	Credit Institutions	0	0	0	0	0	0	0	0
250	Other Financial Corporations	11	2	2	2	(4)	(1)	8	1
260	Non-Financial Corporations	366	517	517	517	(54)	(275)	399	208
<i>970</i>	Households	1,686	306	306	306	(101)	(117)	1,631	184
080	Debt Securities	0	0	0	0	0	0	0	0
290	Loan Commitments given	0	0	0	0	0	0	0	0
100	Total	2,082	831	831	831	(160)	(397)	2,057	394

Table 15: **EU CQ2** - Quality of forbearance 30.06.2023 and 31.12.2022

		a	а
		Gross carrying amount of forborne exposures 30.06.2023	Gross carrying amount of forborne exposures 31.12.2022
1	Loans and advances that have been forborne more than twice	995	989
2	Non-performing forborne loan and advances that failed to meet the non-performing exit criteria	791	786

 Table 16: EU CR1 - Performing and non-performing exposures and related provisions 30.06.2023

	а	b	С	d	е	f	g	h	i	j	k l	m	n	0
•		Gross carr	ying amoun	t/ nomina	l amount		Accum			ccumulate edit risk an		Collaterals and financial guarantees received		
_	Perfor	Performing exposures		Non performing exposures						accumul accumul in fair va	erforming exposures- nulated impairment, ated negative changes alue due to credit risk and provisions	Accumulated partial write- offs	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 of which stage 2 stage 3			
Cash balances at central banks and other demand deposits	7,008	7,008							_					
Loans and advances Central Banks	37,133	32,632	4,060	1,822		1,800	(486)	(207)	(278)	(958)	(943)	(88)	18,414	73
General Governments Credit Institutions	3,655	3,625	30	14		14	(17)	(7)	(10)	(13)	(13)		159	
Other Financial Corporations	2,534 3,747	2,534 3,308	12	2		2	(27)	(23)	(4)	(1)	(1)		2,673	
Non-Financial Corporations	18,087	16,486	1,588	1,080		1,059	(255)	(121)	(134)	(643)	(627)	(44)	8,564	36
Of which SMEs Households	5,520	4,447	1,073	534		515	(140)	(45)	(95)	(306)	(293)	(18)	3,081	20
Debt Securities	9,110	6,680	2,430	725	-	725	(187)	(55)	(132)	(301)	(301)	(44)	7,019	36
Central Banks	15,055	13,644	1,406				(67)	(25)	(41)					
General Governments	13,389	11,984	1,406				(61)	(20)	(41)					
Credit Institutions Other Financial	527 920	525 917					(3) (1)	(3) (1)						
Corporations Non-Financial Corporations	219	219					(2)	(2)						
Off-balance sheet exposures Central Banks	18,378	17,550	828	136		136	(10)	(6)	(5)	(38)	(38)	•	66	
General Governments Credit Institutions	351 3	345 3	6											
Other Financial Corporations	827	826	1											
Non-Financial Corporations	15,640	14,837	803	132		132	(10)	(5)	(5)	(38)	(38)		65	
Households	1,558	1,539	19	4		4							1	
Total	77,575	70,835	6,294	1,958		1,936	(563)	(238)	(325)	(997)	(981)	(88)	18,480	73

 Table 16: EU CR1 - Performing and non-performing exposures and related provisions 31.12.2022

_	a	b	С	d	e f	g	h	i	j	k I	m	n	0
	(Gross carry	ing amour	nt/ nominal ar	nount	Accumulated impairment, accumula value due to credit risk						Collateral a guarantee	nd financial es received
-	Perfori	Performing exposures		Non perforn				accumulated negative changes in		Accumulated partial write-	On performing exposures	On non- performing exposures	
		Of which stage 1		\ 5	Of Of which which stage 3 stage		Of which stage 1	Of which stage 2		Of Of which which stage 3 stage 2			
Cash balances at central banks and other demand deposits	13,711	13,711											
Loans and advances	37,952	32,862	4,596	1,793	1,771	(506)	(213)	(293)	(1,003)	(987	(138)	18,812	667
Central Banks													
General Governments	3,830	3,781	49	15	15	(10)	(7)	(3)	(13)	(13)	153	2
Credit Institutions	2,673	2,673											
Other Financial Corporations	3,908	3,418	12	6	6	(28)	(24)	(4)	(5)	(5)	2,836	1
Non-Financial Corporations	18,153	16,368	1,770	1,161	1,139	(282)	(125)	(157)	(706)	(690	(93)	8,544	387
Of which SMEs	5,785	4,605	1,180	545	525	(164)	(49)	(115)	(319)	(304	(27)	3,198	201
Households	9,387	6,622	2,764	611	611	(187)	(57)	(130)	(280)	(280	(45)	7,279	277
Debt Securities	13,180	11,775	1,400	-	<u>-</u>	(85)	(32)	(54)		<u>-</u>		_	_
Central Banks													
General Governments	12,153	10,767	1,386			(78)	(25)	(53)					
Credit Institutions	476	474				(4)	(4)						
Other Financial Corporations	306	302											
Non-Financial Corporations	245	232	13			(3)	(3)						
Off-balance sheet exposures Central Banks	19,079	18,177	902	131	131	(12)	(5)	(7)	(39)	(39)	20	
General Governments	353	349	4										
Credit Institutions	2	2											
Other Financial Corporations	895	895	1										
Non-Financial Corporations	16,392	15,514	878	126	126	(11)	(5)	(7)	(39)	(39)	20	
Households	1,436	1,417	19	4	4							1	
Total	83,921	76,524	6,898	1,923	1,901	(604)	(250)	(354)	(1,042)	(1,026	(138)	18,832	667

Table 17: EU CQ4 - Quality of non-performing exposures by geography 30.06.2023

		а	b	С	d	е	f	g
		Gross	Gross carrying amount/ nominal			Accumulated	Provisions on	Accumulated
				ich non- orming	Of which subject to impairement	impairement*	off-balance- sheet commitments	in fair value due to credit risk on
		_		Of which defaulted			and financial guarantees given	non-performing exposures
1	On-balance-sheet exposures	54,010	1,822	1,822	53,543	(1,495)		(15)
2	Greece	40,469	1,701	1,701	40,007	(1,395)		(15)
3	Italy	3,190			3,190	(4)		
4	Spain	1,996			1,996	(2)		
5	North Macedonia	1,832	90	90	1,832	(76)		
6	Marshall Islands**	1,181			1,181			
7	Germany	785			<i>785</i>			
8	Cyprus	684	29	29	684	(15)		
9	United Kingdom	581			581			
10	Other countries**	3,293	2	2	3,288	(3)		
11	Off-balance-sheet-exposures	18,514	136	136		-	49	
12	Greece	17,622	124	124			48	
13	Italy							
14	Spain							
15	North Macedonia	360	11	11				
16	Marshall Islands**							
17	Germany							
18	Cyprus	531						
19	United Kingdom							
20	Other countries**	1	1	1			1	
21	Total	72,524	1,958	1,958	53,543	(1,495)	49	(15)

^{*} Accumulated impairement is not reported for off balance-sheet exposures

 Table 17: EU CQ4 - Quality of non-performing exposures by geography 31.12.2022

		a	b	С	d	e	T T	g
		Gross	oss carrying amount/ nominal amount			Accumulated	Provisions on	Accumulated
				nich non- forming	Of which subject to impairement	impairement*	off-balance- sheet commitments	negative changes in fair value due to credit risk on
		-		Of which defaulted	mpanement		and financial guarantees given	non-performing exposures
1	On-balance-sheet exposures	52,924	1,793	1,793	52,404	(1,579)		(16)
2	Greece	40,410	1,664	1,664	39,894	(1,478)		(16)
3	Italy	2,763	,	,	2,763	(6)		
4	Spain	1,936			1,936	(2)		
5	North Macedonia	1,728	87	87	1,728	(65)		
6	Marshall Islands**	1,135			1,135			
7	Germany	775			775			
8	Cyprus	613	39	39	613	(21)		
9	United Kingdom	563			563			
10	Other countries**	3,002	3	3	2,997	(5)		
11	Off-balance-sheet-exposures	19,209	131	131			51	
12	Greece	18,320	116	116			50	
13	Italy							
14	Spain							
15	North Macedonia	343	12	12			0	
16	Marshall Islands**							
17	Germany							
18	Cyprus	545	1	1			0	
19	United Kingdom							
20	Other countries**	1	1	1			1	
21	Total	72,134	1,923	1,923	52,404	(1,579)	51	(16)

^{*} Accumulated impairement is not reported for off balance-sheet exposures

^{**} Exposures to Marshall Islands are related to ocean shipping. The same applies for Other Counries that include exposures to Liberia.

^{**} Exposures to Marshall Islands are related to ocean shippina. The same applies for Other Counries that include exposures to Liberia.

Table 18: EU CQ5 - Credit quality of loans and advances by industry 30.06.2023

		а	b	С	d	е	f
			Gross	carrying amount		Accumulated	Accumulated
			of which non-performing Of which loans and advances subject to impairment defaulted		impairment	negative changes in fair value due to credit risk on non-performing exposures	
1	Agriculture, forestry and fishing	317	63	63	317	(40)	
2	Mining and quarrying	53	4	4	52	(2)	(1)
3	Manufacturing	4,204	354	354	4,188	(297)	(11)
4	Electricity, gas, steam and air conditioning supply	2,155	8	8	2,155	(26)	
5	Water supply	48	1	1	48	(1)	
6	Construction	438	35	35	438	(35)	
7	Wholesale and retail trade	3,205	286	286	3,203	(214)	(1)
8	Transport and storage	3,947	28	28	3,932	(38)	(2)
9	Accommodation and food service activities	1,763	175	175	1,762	(104)	
10	Information and communication	428	30	30	428	(41)	
11	Real estate activities	1,359	21	21	1,359	(22)	
12	Financial and insurance activities	41	0	0	41		
13	Professional, scientific and technical activities	390	29	29	390	(26)	
14	Administrative and support service activities	203	2	2	203	(4)	
15	Public administration and defense, compulsory social security	1	0	0	1		
16	Education	21	1	1	21	(1)	
17	Human health services and social work activities	166	3	3	166	(5)	
18	Arts, entertainment and recreation	34	5	5	34	(5)	
19	Other services	393	35	35	393	(19)	
20	Total	19,167	1,080	1,080	19,133	(882)	(15)

 Table 18: EU CQ5 - Credit quality of loans and advances by industry 31.12.2022

	1451C 10. 20 CQ5	a ′	b	С	d	e	f
			Gross	carrying amount	:	Accumulated	Accumulated
	_		of which n	on-performing	Of which loans and advances subject to	impairment	negative changes in fair value due to credit risk on
				of which defaulted	impairment		non-performing exposures
1	Agriculture, forestry and fishing	385	45	45	385	(44)	
2	Mining and quarrying	19	4	4	19	(2)	(1)
3	Manufacturing	4,377	373	373	4,361	(318)	(11)
4	Electricity, gas, steam and air conditioning supply	2,036	8	8	2,036	(28)	
5	Water supply	51	1	1	51	(1)	
6	Construction	426	30	30	425	(29)	
7	Wholesale and retail trade	3,509	304	304	3,507	(233)	(1)
8	Transport and storage	4,047	49	49	4,031	(41)	(2)
9	Accommodation and food service activities	1,729	165	165	1,729	(133)	
10	Information and communication	382	30	30	382	(26)	
11	Real estate activities	1,307	60	60	1,307	(48)	
12	Financial and insurance actvities	24	0	0	24		
13	Professional, scientific and technical activities	168	29	29	168	(25)	
14	Administrative and support service activities	178	2	2	178	(4)	
15	Public administration and defense, compulsory social security						
16	Education	24	1	1	24	(2)	
17	Human health services and social work activities	154	2	2	154	(5)	
18	Arts, entertainment and recreation	36	6	6	36	(5)	
19	Other services	460	50	50	460	(27)	
20	Total	19,314	1,161	1,161	19,277	(971)	(16)

Table 19: EU CQ6 - Collateral valuation - loans and advances 30.06.2023

		a	D	С	a	е	'	g	n		J	K	
		Loans and a	advances										
			Performing	3	Non- perfori								
				of which past due>30 days ≤90 days		Unlikely to pay that are not past due or past due ≤90 days		of which past due > 90 days ≤180 days	of which past due > 180 days ≤ 1 year	past due > 1 year	of which past due > 2 years ≤ 5 years	past due '> 5 years	of which past due > 7 years
1	Gross carrying amount	38,955	37,133	204	1,822	796	,	168		158	115	435	15
2	Of which: secured	29,852	28,376	180	1,476	692	784	127	110	122	67	348	10
3	Of which: secured with Immovable property	12,552	11,352	126	1,200	639	561	108	76	91	43	234	9
4	Of which: instruments with LTV higher than 60% and lower or equal to 80%	2,862	2,689		173	89	84						
5	Of which: instruments with LTV higher than 80% and lower or equal to 100%	1,770	1,572		198	131	67						
6	Of which: instruments with LTV higher than 100%		2,297		479	302	177						
7	Accumulated impairment for secured assets	(1,000)	(315)	(14)	(685)	(275)	(410)	(33)	(43)	(37)	(35)	(255)	(7)
8	Collateral												
9	Of which value capped at the value of exposure	14,796	14,154	147	643	380	262	82	49	65	18	46	2
10	Of which: Immovable property	10,446	9,855	109	591	348	243	78	48	62	17	37	2
11	Of which value above the cap	16,930	15,443	76	1,487	504	984	87	95	65	80	635	22
12	Of which: Immovable property	11,259	10,146	64	1,114	467	646	78	68	52	71	366	11
	Financial guarantees received	4,351	4,261	9	90	15	75	7	9	8	5	47	0
14	Accumulated partial write- off	(88)	(1)	0	(87)	(15)	(72)	0	0	(1)	(1)	(70)	0

Table	19: EU (CQ6 - Colla	ateral valud	ation - Ioan	s and adv	ances 31	.12.2022				
а	b	С	d	e	f	g	h	i	j	k	- 1

		Loans and advances											
	_	P	erforming		Non- performing								
			0	f which		Unlikely to pay that are	Past due >		of which	of which	of which	of which	of which
				ast		not past							past due >
				ue>30		due or are		> 90 days		,	,	,	7 years
				ays ≤90		past due		≤180 days	,	≤ 2 years	≤ 5 years	≤ 7 years	
			a	ays		≤90 days			year				
1	Gross carrying amount	39,744	37,952	204	1,793	809	983	86	120	143	139	478	18
2	Of which: secured	30,057	28,616	178	1,442	716	726	66	94	83	83	389	11
3	Of which: secured with Immovable property	12,464	11,365	58	1,098	602	497	55	66	54	56	258	8
4	Of which: instruments with LTV higher than 60% and lower or equal to 80%	2,781	2,622		160	90	70						
5	Of which: instruments with LTV higher than 80% and lower or equal to 100%	1,712	1,560		151	100	51						
6	Of which: instruments with LTV higher than 100%	2,666	2,221		445	292	152						
7	Accumulated impairment for secured assets	(1,047)	(334)	(7)	(713)	(306)	(408)	(20)	(28)	(29)	(42)	(281)	(7)
8 <i>9</i>	Collateral Of which value capped at the value of exposure	14,722	14,150	156	572	367	205	41	47	39	19	56	2
10	Of which: Immovable property	10,408	9,905	101	503	315	188	40	44	38	19	45	2
11	Of which value above the cap	17,066	15,565	58	1,501	509	992	57	56	43	95	713	27
12	Of which: Immovable property	11,127	10,037	48	1,089	432	658	54	49	33	72	438	12
	Financial guarantees received Accumulated partial write-off	4,756 (138)	4,661 (2)	6	95 (136)	24 (34)	71 (102)	2 (2)	4 (1)	_	10 (35)		

Table 20: EU CR2 - Changes in the stock of non-performing loans and advances 30.06.2023

		a
		Gross carrying amount
1	Initial stock of non-performing loans and advances,	1,793
	Dec 31, 2022	1,793
2	Inflows to non-performing portfolios	474
3	Outflows from non-performing portfolios	(445)
4	Outflows due to write-offs	(122)
5	Outflow due to other situations	(323)
6	Final stock of non-performing loans and advances, Jun 30, 2023	1,822

Table 20: EU CR2 - Changes in the stock of non-performing loans and advances 31.12.2022

		a
		Gross carrying amount
1	Initial stock of non-performing loans and advances,	2,294
2	Dec 31, 2021 Inflows to non-performing portfolios	638
3	Outflows from non-performing portfolios	(1,139)
4	Outflows due to write-offs	(212)
5	Outflow due to other situations	(927)
6	Final stock of non-performing loans and advances, Dec 31, 2022	1,793

Table 21: EU CR2a - Changes in the stock of non-performing loans and advances and related net accumulated recoveries 30.06.2023

		а	b
		Gross carrying amount	Related net accumulated recoveries
1	Initial stock of non-performing loans and advances, Dec 31, 2022	1,793	
2	Inflows to non performing portfolios	474	
3	Outflows from non-performing portfolios	(445)	
4	Outflow to performing portfolio	(160)	
5	Outflow due to loan repayment, partial or total	(93)	
6	Outflow due to collateral liquidations	(6)	6
7	Outflow due to taking possession of collateral		0
8	Outflow due to sale of instruments		0
9	Outflow due to risk transfers		0
10	Outflows due to write-offs	(122)	
11	Outflow due to Other Situations	(65)	
12	Outflow due to reclassification as held for sale	0	
13	Final stock of non-performing loans and advances, Jun 30, 2023	1,822	

 Table 21: EU CR2a - Changes in the stock of non-performing loans and advances and related net accumulated recoveries 31.12.2022

		a	b
	_	Gross carrying amount	Related net accumulated recoveries
1	Initial stock of non-performing loans and advances, Dec 31,2021	2,294	
2	Inflows to non-performing portfolios	638	
3	Outflows from non-performing portfolios	(1,139)	
4	Outflow to performing portfolio	(514)	
5	Outflow due to loan repayment, partial or total	(189)	
6	Outflow due to collateral liquidation	(22)	21
7	Outflow due to taking possession of collateral	(21)	13
8	Outflow due to sale of instruments		
9	Outflow due to risk transfers		
10	Outflow due to write-off	(212)	
11	Outflow due to other situations	(61)	
12	Outflow due to reclassification as held for sale	(120)	
13	Final stock of non-performing loans and advances, Dec 31, 2022	1,793	

Table 22: EU CQ7 - Collateral obtained by taking possession and execution processes 30.06.2023

а Collateral obtained by taking possession Value at initial Accumulated recognition negative changes Property Plant and Equipment (PP&E) Other than Property Plant and Equipment 632 (162) Residential immovable property (24) 234 Commercial Immovable property 318 (66) Movable property (auto, shipping, etc.) (1) 1 (71) Equity and debt instruments 71 6 Other collateral 8 0 8 Total 632 (162)

Table 22: EU CQ7 - Collateral obtained by taking possession and execution processes 31.12.2022

		a	b				
		Collateral obtained by taking					
		pos	session				
		Value at initial	Accumulated				
		recognition	negative changes				
1	Property Plant and Equipment (PP&E)	_	_				
2	Other than Property Plant and Equipment	639	(165)				
3	Residential immovable property	237	(24)				
4	Commercial Immovable property	320	(68)				
5	Movable property (auto, shipping, etc.)	1	(1)				
6	Equity and debt instruments	71	(71)				
7	Other	8	(1)				
8	Total	639	(165)				

Table 23: EU CQ8 - Collateral obtained by taking possession and execution process - vintage breakdown 30.06.2023

		а	b	c	d	е	f	g	h	i	j	k	T .
		Total	Total collateral obtained by taking possession										
		Gross	Accum.	Value at	Accum. neg.	Foreclose	d ≤ 2 years		d >2 years	Foreclose	d >5 years		on-current
		carrying amount	neg. changes	initial recogn.	changes	Value at	Accum.	and ≤ 5 Value at	years Accum.	Value at	Accum.	assets hell	ld-for-sale Accum.
		amount	changes			initial	neg.	initial	neg.	initial	neg.	initial	neg.
						recogn.	changes	recogn.	changes	recogn.	changes	recogn.	changes
1	Collateral obtained by taking possession classified as Property Plant and Equipment (PP&E)	0	0	0	0								
2	Collateral obtained by taking possession other than classified Property Plant and Equipment	658	(244)	632	(162)	145	(64)	314	(27)	173	(71)	333	(48)
3	Residential immovable property	317	(103)	234	(24)	12	0	186	(9)	36	(15)	158	(16)
4	Commercial Immovable Property	315	(123)	318	(66)	62	(1)	119	(9)	136	(56)	174	(32)
5	Movable property (auto, shipping, etc.)	2	(1)	1	(1)	0	0	1	0	0	0	1	0
6	Equity and debt instruments	17	(17)	71	` ,	63	(63)	8	(8)	0	0	0	0
7	Other	8	0	8	0	8	0	0	0	0	0	0	0
8	Total	658	(244)	632	(162)	145	(64)	314	(27)	173	(71)	333	(48)

 Table 23: EU CQ8 - Collateral obtained by taking possession and execution process - vintage breakdown 31.12.2022

		a	D	C	a	e	ı	g	n		J	К	
			palance oction	Total collateral obtained by taking possession			on						
		Gross carrying	Accum. neg.	Value at initial	Accum. neg.	Foreclose	d ≤ 2 years		d >2 years 5 years	Foreclose	d >5 years	l	non-current ld-for-sale
		amount	changes	recogn.	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	666	(247)	639	(165)	148	(65)	333	(30)	157	(70)	345	(50)
3	Residential immovable property	324	(106)	237	(24)	9		195	(10)	33	(14)	167	(16)
4	Commercial immovable property	316	(123)	320	(68)	69	(2)	128	(11)	124	(55)	177	(33)
5	Movable property (auto, shipping etc.)	2	(1)	1	(1)			1		0		1	
6	Equity and debt instruments	17	(17)	71	(71)	63	(63)	8	(8)	0		0	
7	Other	8		8	(1)	8	0	1		0		0	
8	Total	666	(247)	639	(165)	148	(65)	333	(30)	157	(70)	345	(50)

5.5 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.);
- 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) for capital calculation purposes under the Standardised Approach:

- Guarantees from:
 - Legal entities, both from the Private and Public Sector
 - Central governments, Regional governments, local authorities and PSEs
 - Financial institutions
 - ° The Greek Government
 - ° The Hellenic Development Bank (HDB)
 - ° The European Investment Fund (EIF)
 - ° The European Investment Bank (EIB)
- 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
 - Letters of Guarantee
 - Claims on Insurance Contracts
- Liens
 - On Real Estate

Credit and Counterparty Risk exposures secured by CRR eligible credit risk mitigation instruments (collateral and guarantees) as of 30.06.2023 (in € mio) were as follows:

Table 24: EU CR3 - CRM techniques overview: Disclosure of the use of credit risk mitigation techniques 30.06.2023

		a	b	С	d	е	
		Exposures unsecured - Carrying amount		Of which: secured by collateral	Of which: secured by financial guarantees	•	
1	Total loans	8,658	28,853	21,073	7,780		
2	Total debt securities	14,988	0	0	0		
3	Total exposures	23,647	28,853	21,073	7,780		
4	Of which non-performing exposures	72	791	685	106		
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 24: EU CR3 - CRM techniques overview: Disclosure of the use of credit risk mitigation techniques 31.12.2022

		а	b	С	d	е	
		Exposures unsecured - Carrying amount	•		Of which: secured by financial guarantees	Of which: secured by credit derivatives	
1	Total loans	9,224	29,011	21,724	7,287		
2	Total debt securities	13,095	0	0	0		
3	Total exposures	22,319	29,011	21,724	7,287		
4	Of which non-performing exposures	61	728	597	131		
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.

5.6 **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 26: 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 30.06.2023, according to the supervisory exposure classes (amounts are in € mio):

 Table 25: EU CR4 - Standardised approach - Credit Risk Exposure and CRM effects 30.06.2023

	a	b	С	d	е	f	
	Exposures befo	re CCF and CRM	Exposures post	CCF and CRM	RWAs and RWA density		
Exposure classes	On-balance- sheet amount	Off-balance- sheet amount	On-balance- sheet amount	Off-balance- sheet amount	RWAs*	RWA density	
Central governments or central banks	25,944	0	28,959	0	5,502	19%	
Regional governments or local authorities	11	1	11	0	2	21%	
Public sector entities	1,364	211	1,865	10	770	41%	
Multilateral development banks	202	0	933	0	0	0%	
International organisations	64	0	64	0	0	0%	
Institutions	2,403	518	2,415	109	772	31%	
Corporates	15,359	14,667	13,896	1,063	13,835	92%	
Retail	3,444	1,933	2,772	15	1,931	69%	
Secured by mortgages on immovable property	8,697	101	8,697	40	3,153	36%	
Exposures in default	1,311	81	1,189	8	1,228	103%	
Exposures associated with particularly high risk Covered bonds	496	5	496	1	745	150%	
Institutions and corporates with a short-term credit assessment Collective investment undertakings							
Equity	152	0	152	0	204	134%	
Other items	3,213	0	3,213	0	2,448	76%	
Total	62,659	17,518	64,661	1,246	30,589	46%	

^{*}Counterparty Credit Risk RWAS are not included

 Table 25: EU CR4 - Standardised approach - Credit Risk Exposure and CRM effects 31.12.2022

	d	U U		u	е	'
	Exposures befo	ore CCF and CRM	Exposures pos	t CCF and CRM	RWAs and R	WA density
Exposure classes	On-balance- sheet amount	Off-balance- sheet amount	On-balance- sheet amount	Off-balance- sheet amount	RWAs*	RWA density
Central governments or central banks	31,630	0	34,869	0	5,588	16%
Regional governments or local authorities	12	1	11	0	2	20%
Public sector entities	984	209	1,636	10	745	45%
Multilateral development banks	100	0	856	0	0	0%
International organisations	58	0	58	0	0	0%
Institutions	2,130	515	2,163	110	701	31%
Corporates	15,267	15,292	13,688	1,004	13,584	92%
Retail	3,514	1,792	2,778	14	1,938	69%
Secured by mortgages on immovable property	8,852	89	8,852	37	3,198	36%
Exposures in default	1,330	69	1,196	8	1,255	104%
Exposures associated with particularly high risk Covered bonds	548	8	547	1	823	150%
Institutions and corporates with a short-term credit assessment Collective investment undertakings						
Equity	118	0	118	0	169	143%
Other items	3,324	0	3,324	0	2,563	77%
Total	67,868	17,975	70,098	1,184	30,564	43%

^{*}Counterparty Credit Risk RWAS are not included

Table 27: EU CR5 - Standardised approach 30.06.2023

-					Risk W	/eight			
Expo	osure classes	0%	2%	4%	10%	20%	35%	50%	70%
1	Central governments or central banks	24,306	_	_	_	20	_	44	_
2	Regional governments or local authorities					11			
3	Public sector entities	1,105							
4	Multilateral development banks	933							
5	International organisations	64							
6	Institutions	1,338				464		120	
7	Corporates								
8	Retail								
9	Secured by mortgages on immovable property						6,240	2,498	
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	756				12			
17	Total	28,501	-		-	507	6,240	2,661	

^{*}Counterparty Credit Risk RWAS are not included

Table 27: EU CR5 - Standardised approach 30.06.2023 (continued)

Evno	osure classes				Risk We	ight			Total	Of which
Ехро	isure classes	75%	100%	150%	250%	370%	1250%	Others	Total	unrated
1	Central governments or central banks		3,998		591				28,959	
2	Regional governments or local authorities								11	11
3 4 5	Public sector entities Multilateral development banks International organisations		770						1,875 933 64	1,321
6 7	Institutions Corporates		569 14,940	34 19					2,524 14,959	508 14,420
8 9	Retail Secured by mortgages on immovable property	2,786	,						2,786 8,737	
10 11	Exposures in default Exposures associated with particularly high risk		1,133	63 497					1,196 497	
12 13	Covered bonds Institutions and corporates with a short-term credit assessment									
14 15 16	Collective investment undertakings Equity Other items		118 2,445		35				152 3,213	
17	Total	2,786	23,972	613	626	-			65,907	16,260

^{*}Counterparty Credit Risk RWAS are not included

Table 27: EU CR5 - Standardised approach 31.12.2022

F					Risk W	/eight			
Ехро	osure classes	0%	2%	4%	10%	20%	35%	50%	70%
1	Central governments or central banks	30,145	_		_	1	_	41	
2	Regional governments or local authorities					12			
3	Public sector entities	902							
4	Multilateral development banks	856							
5	International organisations	58							
6	Institutions	1,234				370		116	
7	Corporates								
8	Retail								
9	Secured by mortgages on immovable property						6,413	2,475	
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	758				4			
17	Total	33,954				387	6,413	2,632	

^{*}Counterparty Credit Risk RWAS are not included

 Table 27 : EU CR5 - Standardised approach 31.12.2022 (continued)

Evne	soure eleccos	Risk Weight							Total	Of which	
Ехро	osure classes	75%	100%	150%	250%	370%	1250%	Others	Total	unrated	
1	Central governments or central banks		4,094	0	589				34,870		
2	Regional governments or local authorities								12	12	
3	Public sector entities		744						1,647	1,445	
4	Multilateral development banks								856		
5	International organisations								58		
6	Institutions		520	33					2,273	607	
7	Corporates		14,670	21					14,691	14,126	
8	Retail	2,793							2,793		
9	Secured by mortgages on immovable property								8,888		
10	Exposures in default		1,103	101					1,204		
11	Exposures associated with particularly high risk			549					549		
12	Covered bonds										
13	Institutions and corporates with a short-term credit assessment										
14	Collective investment undertakings										
15	Equity		85		34				118		
16	Other items		2,562						3,324		
17	Total	2,793	23,778	703	623				71,282		

^{*}Counterparty Credit Risk RWAS are not included

6 COUNTERPARTY CREDIT RISK

Counterparty Credit Risk (CCR) mainly stems from the OTC derivative and secured interbank transactions, namely repurchase agreements, included in 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 – which equals to 1.4 – and the sum of the replacement cost (RC) and the potential future exposure (PFE), i.e., EAD=alpha * (RC + PFE). 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 respective add-ons of 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. As per the current regulatory framework, 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 30 June 2023.

Table 28: EU CCR1 - Analysis of CCR exposure by approach (€ mio) 30.06.2023

		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)	162	315		1.4	2,290	671	641	443
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)					3,003	303	303	1
5	VaR for SFTs								
6	Total	-				5,272	973	943	443

Table 28: EU CCR1 - Analysis of CCR exposure by approach (€ mio) 31.12.2022

Replacement Potential FFPF Alpha used Exposure Exposure Exposure Exposure

		cost (RC)	Future Exposure (PFE)	for compu regula expos valu	value uting pre CRM tory	value post CRM	value	NWLAS
EU1	EU - Original Exposure Method (for derivatives)							
EU2	EU - Simplified SA-CCR (for derivatives)			_				
1	SA-CCR (for derivatives)	210	294	1.4	4 2,317	706	684	459
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)				3,319	324	324	1
5	VaR for SFTs							
6	Total	-			5,637	1,030	1,008	460

RWFAs

Table 29: EU CCR2 – CVA capital charge (€ mio) 30.06.2023

		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	270	224
EU4	Transactions subject to the Alternative Approach (Based on the		
	Original Exposure Method)		
5	Total transactions subject to own funds requirements for CVA risk	270	224

Table 29: EU CCR2 – CVA capital charge (€ mio) 31.12.2022

	Exposure value	RWEAs
Total transactions subject to the advanced method		
(i) VaR component (including the 3x multiplier)		
(ii) stressed VaR component (including the 3x multiplier)		
Transactions subject to the Standardized method	268	215
Transactions subject to the Alternative Approach (Based on the Original Exposure Method)		
Total transactions subject to own funds requirements for CVA risk	268	215
	 (i) VaR component (including the 3x multiplier) (ii) stressed VaR component (including the 3x multiplier) Transactions subject to the Standardized method Transactions subject to the Alternative Approach (Based on the Original Exposure Method) 	Total transactions subject to the advanced method (i) VaR component (including the 3x multiplier) (ii) stressed VaR component (including the 3x multiplier) Transactions subject to the Standardized method 268 Transactions subject to the Alternative Approach (Based on the Original Exposure Method)

Table 30: EU CCR8 – Exposures to CCPs (€ mio) 30.06.2023

		Exposure Value	RWEAs
1	Exposures to QCCPs* (total)		8
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	268	5
3	(i) OTC derivatives	258	5
4	(ii) Exchange-traded derivatives	10	0.2
5	(iii) SFTs		
6	(iv) Netting sets where cross-product netting has been approved		
7	Segregated initial margin	898	
8	Non-segregated initial margin	37	1
9	Prefunded default fund contributions	12	2
10	Alternative calculation of own funds requirements for exposures		
11	Exposures to non-QCCPs* (total)		
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		

^{*}QCCP: Qyalifying Central Counterparty

Table 30: **EU CCR8** – Exposures to CCPs (€ mio) 31.12.2022

		Exposure Value	RWEAs
1	Exposures to QCCPs* (total)		8
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	282	6
3	(i) OTC derivatives	274	5
4	(ii) Exchange-traded derivatives	8	0.2
5	(iii) SFTs		
6	(iv) Netting sets where cross-product netting has been approved		
7	Segregated initial margin	1,186	
8	Non-segregated initial margin	38	0.8
9	Prefunded default fund contributions	6	2
10	Alternative calculation of own funds requirements for exposures		
11	Exposures to non-QCCPs* (total)		
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 31: EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (€ mio) 30.06.2023

	Exposure classes	Risk Weight								Total			
	:	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	
1	Central governments or central banks	337					_	_				_	337
2	Regional governments or local authorities												
3	Public sector entities												
4	Multilateral												
	development banks												
5	International												
	organisations												
6	Institutions		305			70	214			10	0.01		599
7	Corporates									312			312
8	Retail												
9	Institutions and												
	corporates with a short-												
	term credit assessment												
10	Other items												
11	Total	337	305			70	214			322	0.01		1,248

Table 31: EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (€ mio) 31.12.2022

	Exposure classes		Risk Weight								Total		
		0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	
1	Central governments or central banks	355		_			_	_		_		_	355
2	Regional governments or local authorities												
3	Public sector entities												
4	Multilateral												
	development banks												
5	International												
	organisations												
6	Institutions		320			99	226			3			648
7	Corporates									324			324
8	Retail												
9	Institutions and												
	corporates with a short-												
	term credit assessment												
10	Other items												
11	Total	355	320	-	-	99	226	-	-	327	-	-	1,328

Table 32: EU CCR5 – Composition of collateral for CCR exposures (€ mio) 30.06.2023

		Collatera	al used in deri	vative tran	sactions	Collateral used in SFTs				
Collate	Collateral type		Fair value of collateral received		e of posted ateral		of collateral eived	Fair value of posted collateral		
		Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	
1	Cash – domestic currency		3,314	787	609		0.03			
2	Cash – other currencies		215		5					
3	Domestic sovereign debt		91				2,700		19	
4	Other sovereign debt			141						
5	Government agency debt									
6	Corporate bonds		4							
7	Equity securities									
10	Other collateral									
11	Total	•	3,624	928	614		2,700		19	

Table 32: EU CCR5 – Composition of collateral for CCR exposures (€ mio) 31.12.2022

		Collatera	ıl used in deri	vative tran	sactions	Collateral used in SFTs				
Collate	Collateral type		Fair value of collateral received		e of posted ateral		of collateral	Fair value of posted collateral		
		Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	
1	Cash – domestic currency	_	3,487	895	654		_	2	_	
2	Cash – other currencies		217		5					
3	Domestic sovereign debt		450				3,003		34	
4	Other sovereign debt			321					89	
5	Government agency debt									
6	Corporate bonds									
7	Equity securities									
10	Other collateral									
11	Total		4,154	1,216	659		3,003	2	123	

Table 33: EU CCR6 - Credit derivatives exposures (€ mio) 30.06.2023

	Credit deriva	tive hedges	Other credit
	Protection bought	Protection sold	derivatives
Notionals	-		
Single-name credit default swaps	100		
Index credit default swaps			
Total return swaps			
Credit options			
Other credit derivatives			
Total notionals	100		
Fair values		_	_
Positive fair value (asset)			
Negative fair value (liability)	(4)		

Table 33: EU CCR6 - Credit derivatives exposures (€ mio) 31.12.2022

Credit deriva	tive neages	Other credit		
Protection bought	Protection sold	derivatives		
		_		
0				
0	_	_		
0				
	Protection bought 0	0		

7 MARKET RISK

The Bank uses internally 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 VaR calculation process is summarized as follows:

- 1. Collection of transactional data per type of product;
- 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, commodity prices and implied volatilities;
- 3. Collection of market data for instruments/positions valuation;
- 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.
- Estimation of the VaR per type of risk (interest rate risk, equity risk, foreign exchange risk, commodity risk);
- Estimation of Total VaR, taking into consideration the correlation matrix among all risk factors.

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, foreign exchange and commodity 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 monthly 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 rule1.

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 both the standardized method and the internal model approach for market risk, as of 30 June, 2023, are shown in the tables below.

Table 34: EU MR1 – Market risk under the Standardized approach (€ mio) 30.06.2023 and 31.12.2022

		RWAs Q2.23	RWAs Q4.22
	Outright products		
1	Interest rate risk (general and specific)	0.2	6
2	Equity risk (general and specific)	57	31
3	Foreign echange risk	91	85
4	Commodity risk		
	Options		
5	Simplified approach		
6	Delta-plus approach	186	391
7	Scenario approach	0.3	2
8	Securitisation (specific risk)		
9	Total	335	515

 $^{^1}$ 10-day VaR is obtained by multiplying the 1-day VaR with the square root of 10 (i.e. VaR10-day=VaR1-day*V10)

Table 35: EU MR2-A – Market risk under the IMA (€ mio) 30.06.2023

nigher of values a and b) nus day's VaR (VaRt-1) plication factor (mc) x average of previous 60 working days (VaRavg) (higher of values a and b) available SVaR (SVaRt-1)) plication factor (ms) x average of previous 60 working days (sVaRavg) igher of values a and b)	652 979	52 11 52 78 19 78
olication factor (mc) x average of previous 60 working days (VaRavg) (higher of values a and b) available SVaR (SVaRt-1)) olication factor (ms) x average of previous 60 working days (sVaRavg) igher of values a and b)	979	52 78 19
(higher of values a and b) available SVaR (SVaRt-1)) plication factor (ms) x average of previous 60 working days (sVaRavg) igher of values a and b)	979	78 19
available SVaR (SVaRt-1)) Dication factor (ms) x average of previous 60 working days (sVaRavg) igher of values a and b)	979	19
olication factor (ms) x average of previous 60 working days (sVaRavg) igher of values a and b)		
igher of values a and b)		78
,		
1.100		
recent IRC measure		
eks average IRC measure		
rehensive risk measure (higher of values a, b and c)		
recent risk measure of comprehensive risk measure		
eks average of comprehensive risk measure		
rehensive risk measure Floor		
		131
)	recent risk measure of comprehensive risk measure seks average of comprehensive risk measure prehensive risk measure Floor r	eeks average of comprehensive risk measure orehensive risk measure Floor

Table 35: EU MR2-A – Market risk under the IMA (€ mio) 31.12.2022

		RWAs	Own funds requirements
1	VaR (higher of values a and b)	559	45
(a)	Previous day's VaR (VaRt-1)		8
(b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)		45
2	SVaR (higher of values a and b)	793	63
(a)	Latest available SVaR (SVaRt-1))		16
(b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)		63
3	IRC (higher of values a and b)		
(a)	Most recent IRC measure		
(b)	12 weeks average IRC measure		
4	Comprehensive risk measure (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	Other		
6	Total	1,351	108

Table 36: EU MR2-B – RWA flow statements of market risk exposures under the IMA (€ mio) 30.06.2023

		VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total own funds requirements
1	RWAs as of March 31, 2023	602	1,000				1,602	128
1a	Regulatory adjustment	449	718				1,168	93
1b	RWAs at the previous quarter-end (end of the day)	153	282				435	35
2	Movement in risk levels	7	(80)					
3	Model updates/changes							
4	Methodology and policy							
5	Acquisitions and disposals							
6	Foreign exchange movements							
7	Other	(17)	35					
8a	RWAs at the end of the reporting period (end of the day)	142	237				380	30
8b	Regulatory adjustment	510	742				1,252	100
8	RWAs as of June 30, 2023	652	979				1,632	131

Table 36: EU MR2-B – RWA flow statements of market risk exposures under the IMA (€ mio) 31.03.2023

	,	VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWAs	Total own funds requirements
1	RWAs as of December 31, 2022	559	793				1,351	108
1a	Regulatory adjustment	453	598				1,051	84
1b	RWAs at the previous quarter-end (end of the day)	106	194				300	24
2	Movement in risk levels	29	39					
3	Model updates/changes							
4	Methodology and policy							
5	Acquisitions and disposals							
6	Foreign exchange movements							
7	Other	18	49					
8a	RWAs at the end of the reporting period (end of the day)	153	282				435	35
8b	Regulatory adjustment	449	718				1,168	93
8	RWAs as of March 31, 2023	602	1,000				1,602	128

The Market Risk RWAs, based on the Internal Model Approach (IMA), remained stable in Q2.2023, compared to the respective figure at the end of the previous quarter.

Finally, the Bank's regulatory VaR/sVaR estimates during the first six months of 2023 are shown in the table below.

Table 37: EU MR3 – IMA values for trading portfolios (€ mio) 30.06.2023

	VaR (10 day 99%)	
1	Maximum value	15
2	Average value	13
3	Minimum value	10
4	Period end	12
5	Maximum value	24
6	Average value 20	
7	Minimum value 18	
8	Period end	19

Table 37: EU MR3 – IMA values for trading portfolios (€ mio) 31.12.2022

	VaR (10 day 99%)				
1	1 Maximum value 16				
2	Average value	10			
3	Minimum value	7			
4	Period end 8				
	SVaR (10 day 99%)				
5	Maximum value	17			
6	Average value 16				
7	7 Minimum value 14				
8	Period end	16			

7.1 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 38: Stress test Scenarios

Scenario	Description			
Interest Ra	ate Risk			
		0 - 3	3 months -5	> 5 years
		months	years	
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 Risl	k			
	-30% for all indices			
Foreign Ex	change Risk			
	EUR depreciation	on by 30%/EU	R appreciation b	y 30%

Additionally, the GFLRM Division monitors the exposure to Vega risk, on a daily basis. The Bank maintains a long volatility position in IR and FX implied volatilities, in line with the internal policy and a short position in equity implied volatilities, due to the sale of equity options embedded in capital guaranteed products offered to clients.

Table 39: 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%

7.2 Back testing

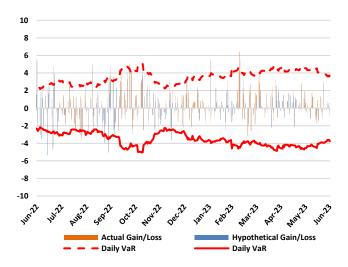
In order to verify the predictive power of the VaR model used for the calculation of Market Risk capital requirements, the Bank conducts back-testing on a daily basis. In accordance with the guidelines set out in the Capital Requirements Regulation 575/2013, the calculations only refer to the Bank's 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. Moreover, the Board is informed about the total number of excesses, on a monthly basis.

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 sovereign yields (mainly the German). Since the beginning of 2023, no over-shootings were observed, mainly due to the higher VaR estimates, following the inclusion of Vega in the Bank's internal model, as well as to the decreased volatility in the financial markets.

As of June 30^{th} , 2023, the total number of back-testing overshootings stood at 9, over a 1-year horizon.

Figure 3: EU MR4 – Comparison of VaR estimates with gains/losses



8 ESG RISKS

8.1 ESG Strategy and Governance

8.1.1 NBG ESG Strategy

Environmental, social and governance topics have evolved so fast and so dramatically that they have inevitably become a focal component of banks' strategic agendas. In this context, banks acknowledge their role in accelerating the transition to a low-carbon world by supporting capital allocation to 'green' activities, while also financing the transition of businesses and households to more sustainable models. NBG is attuned to this imperative with a heightened sense of responsibility.

NBG has embarked on a holistic approach to ESG, defining, to begin with, its ESG strategy in 3 strategic pillars (see table below), which are closely aligned with the Bank's purpose to create a more prosperous and sustainable future together with its customers, people, and shareholders. To this end, we articulated our Environment ('E'), Society ('S') and Governance ('G') strategy in 9 themes. These themes stem from and reflect our revamped value system, align with selected UN's Sustainable Development Goals ("SDGs"), and complement the Bank's overall business strategy and transformation, as well as our vision to become the undisputed Bank of First Choice in Greece.

Our environment-related themes encapsulate our climate change action, portfolio and operations decarbonization strategy, all of which we keep evolving, detailing, monitoring and adjusting on an on-going basis.

8.1.2 NBG ESG strategic initiatives

In line with our three Climate and Environmental Strategic Themes for leading sustainable energy financing, accelerating sustainable transition, and role-modelling environmentally responsible practices, the Bank has undertaken several important initiatives. Indicatively:

- A. Further to creating its 2020 and 2021 GHG emissions inventories, NBG has performed its 2022 GHG emissions measurement, incorporating improvements in the existing methodology and enhancing the coverage of its assets. As a result the Bank has attained a wider and deeper understanding of the potential impact of transition risk on the Bank's lending and investment portfolios, at the granularity of Business Unit (Retail, SB, Corporate), asset class (per PCAF), and sector (NACE) level.
- B. As part of the 2023 cycle of its Transformation Program, NBG is taking actions in order to set short-, medium- and long-term targets for its GHG emissions, focusing on its financed emissions and more specifically on the sectors and asset classes with the most material impact on its carbon footprint. The exercise is currently near completion, examining the gap between its portfolios inertial and Paris-aligned trajectories (aligned with a 1.5°C increase) in order to identify, articulate and implement the necessary actions towards their convergence, and, hence, the achievement of the Bank's 2050 Net Zero goal.

Table 40: ESG Strategic Themes

ESG pillars	ESG strategic themes	Our Values	SDGs
Environment	 Lead the market in sustainable energy financing. Accelerate transition to a sustainable economy. Role-model environmentally responsible practices. 	Responsive Growth catalyst	7 AHOMANIA IND 9 MONTH M
Society	 Champion diversity & inclusion. Enable public health & well-being. Promote Greek heritage, culture & creativity. Foster entrepreneurship & innovation. Support prosperity through learning & digital literacy. 	Human	3 COOD HEATH 4 COLUTY 5 COLORS AND WILL REING 4 COLUTY 5 COLORS 8 DECENT MORE AND 9 AND INFASTRICTURE 10 INCOLUTES 10 INCOLUTES
Governance	Adhere to the highest governance standards.	Trustworthy	16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Following the Net Zero target-setting and subject to ESG Management Committee's decision, the Bank aims to proceed with a public commitment declaration (joining the Net Zero Banking Alliance or similar scheme).

- C. While setting decarbonization targets for its portfolio, NBG is also aware of the need to assess its business/strategic risk against different Climate & Environmental scenarios in order to appropriately account for transition and physical risks that may affect its mid- and long- term objectives and its financial viability. Hence, NBG is currently enhancing its C&E Scenario Analysis and Climate Stress Testing capabilities. Such capabilities will complement and strengthen its Risk Management practices, while also aligning with the process of strategic business planning. It is the Bank's intention to tie in business input to Budget and Business Plan closely with the ESG strategic direction, as the latter gets articulated in more granularity at the BU-level.
- In terms of systemic architecture and data capabilities, the Bank is in the process of developing a dedicated ESG reporting platform, for internal reporting and external disclosures purposes. The platform will contribute to the gradual automation of the Bank's reporting across the Environmental, Social and Governance areas, attuned to global standards and to the supervisor's expectations. Furthermore, as the EU Taxonomy related requirements are gradually phased-in, NBG develops the necessary capabilities, systems and processes, not only to comply with the regulatory asks, but also to leverage the increased volume of information regarding sustainable activities in order to direct the flow of investments accordingly. Concurrently, NBG keeps abreast of the latest developments on sustainability reporting standards and regulations (e.g., CSRD and the ESRS), which are gradually engulfing a broader perimeter of organizations, increasing on the one hand the complexity of banks' disclosures, but providing, on the other hand, the opportunity for informed decision making and better steering of capital flows.
- E. In order to increase awareness regarding Climate and Environmental matters across the organization, NBG, in collaboration with an external specialized partner, has deployed an ESG awareness & learning program. The program is tailored to the specific needs of three different audiences and involves the senior leadership (the CEO, General Managers and Assistant General Mangers), the Heads of selected Units, as well as key personnel from Units involved on C&E issues. The initiative is expected to both increase awareness of C&E matters and provide fundamental knowledge on C&E related commercial, risk management and reporting aspects. A Bankwide C&E awareness program is also being designed and its roll-out is expected within 2023, with completion and follow-ups expected to come in 2024.
- F. With regards to the Bank's objective to direct investments towards sustainable activities, with focus on "green" and "clean energy" projects (as per NBG's UNEP FI PRB commitment to disburse €600 million RES financing in the period 2022-2025), the amounts lent for RES and transition financing purposes, including both Corporate and Retail segments, kept increasing in the first half of 2023. More specifically:
- The total balance of corporate RES lending amounted to €1,6 hillion
- The RRF "Green Pillar" loans contracted reached €248 million.

- Green business loans outstanding amounted to €71 million.
- More than 1700 loans for the purchase of hybrid and electric vehicles were included in the Bank's portfolio at the end of the first half of 2023.
- NBG remains a key player in the provision of green housingrelated loans with €57 million outstanding balance.
 - Leveraging on the experience already gained in the areas of green retail products and corporate lending, the Bank is looking to enhance its ESG related product offering. In this context, the outcomes of a series of initiatives (e.g., Net Zero target-setting, Sustainable Bond Framework creation, etc.) will drive the identification of sustainable financing opportunities. Indicatively, new packaged solutions focusing on sustainable value chains for corporate clients are planned, while the offering of targeted products to meet the increasing demand of individuals and small businesses for sustainable financing is being expanded (e.g., through new partnerships for financing green transportation and housing ecosystems).
- G. To increase attractiveness and transparency towards investors and to tackle the increased demand for financing a wide range of sustainable activities, the Bank is developing an enhanced Sustainable Bond Framework, which includes a broad array of eligible categories of sustainable projects. Among others, the Framework incorporates social -in orientation- eligibility categories and broadens the spectrum of "green" eligible projects beyond the 3 RES categories that were included in the Bank's inaugural Green Bond issuance.

The 'S' part of ESG has long been a key component of NBG's strategy and the Bank's crucial role in the country's socioeconomic development. NBG disclosed extensive information regarding the Bank's social strategy and social contribution in the ESG Report 2021 (incl. relevant metrics and targets as appropriate – Section '4.Society' p.96-145), acknowledging the importance of topics such as social cohesiveness and inclusion, supporting public and own personnel's well-being, preserving our culture and heritage, while encouraging innovation and creativity, and investing in knowledge and capability building.

8.1.3 (Instruments) Promoting Green/Sustainable financing

In its aim to promote sustainable energy financing and to play a leading role in Greece's energy transition, NBG established a Green Bond Framework to enable the issuance of Green Bonds which provide dedicated funding towards eligible 'green' projects.

NBG's inaugural Green Senior Bond amounting to €500 million, issued in October 2020, was the first Green Bond by a Greek bank. The issuance attracted a diverse pool of investors and high-quality accounts, with approximately 30% of allocations placed by investors highly committed to responsible investing. Within the first year of the issuance, €346.6 million (70%) of the proceeds were allocated to 42 renewable energy projects across Greece, in total. Within the first quarter of 2023, the selection of eligible assets for the final allocation of proceeds was completed, achieving full utilization and financing a total of 58 Renewable Energy Sources ("RES") projects. The proceeds have been used to finance or refinance eligible assets, new or existing loans and/or investments in equipment, development, manufacturing, construction, operation, distribution and maintenance of Renewable Energy Sources projects (onshore wind energy, solar thermal energy and small hydro plants). These selected allocations contribute towards the achievement of SDG 7

(Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure) as well as SDG 13 (Climate Action), while they also account for an avoidance of annual GHG emissions of over 770k of tCO2e.

The following table presents an overview of how bond proceeds have been allocated to RES projects and the associated GHG reduction impact as of 31.12.2022.

Table 41: Green Bond proceeds allocation to RES projects

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 ₂)
Onshore Wind	389	21	625	1,497,106	628,785
Solar Thermal energy	85	31	189	294,870	123,845
Small Hydro	26	6	17	49,500	20,790
TOTAL	500	58	830*	1,841,476	773,420

^{*}Total installed Renewable energy capacity (MW) presents a small deviation due to rounding

Following the final allocation of NBG's Green Bond proceeds, a Sustainable Bond Framework has been developed (incl. -by designa set of detailed and transparent eligibility criteria for the selected projects/assets and 3rd party verification), which includes additional green eligible activities alongside other, social in orientation, eligibility categories. NBG's goal is to further promote energy financing by leading regional RES projects, offer sustainable solutions to small businesses, alongside innovative products that will facilitate energy transition, as well as to channel funds to disadvantaged social groups.

8.1.4 Responsible Financing

The Bank places special emphasis on approvals of loans that serve to support business activities that will protect the environment. Failure on the borrower's or the guarantor's part to comply with the environmental and sanitary legislation may lead to termination of the loan contract by the Bank.

The Bank does not undertake the funding of activities banned by EU regulations, indicatively: trade in protected wild fauna, production and trade of radioactive materials and chemicals that have been banned by international protocols, transportation and release of genetically modified products into the natural environment, etc. NBG channels funding into a variety of business activities, taking into consideration assessments and studies by relevant authorities, as well as by independent bodies specializing in the evaluation and supervision of environmental risk.

8.1.5 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, it establishes the criteria for determining whether an economic activity qualifies as environmentally sustainable and incorporates an obligation that companies subject to the Non-Financial Reporting Directive ("NFRD"), including financial corporations, must disclose how operations align with the Taxonomy.

The Taxonomy Regulation is a key component of the European Commission's action plan to redirect capital flows towards a more sustainable economy. The primary aim of the Taxonomy is to help investors identify environmentally sustainable investments.

From 1 January 2024, the Group will be required to disclose information on the extent to which its investments contribute to environmental objectives, the degree of alignment with the EU Taxonomy, and the principal adverse impacts of investment decisions on sustainability factors. The Group will also be required to disclose the Green Asset Ratio ("GAR") KPI which measures the extent to which activities in Group's balance sheet can be considered environmentally sustainable, according to the Taxonomy's technical standards. These disclosure requirements aim to increase transparency and enable investors and analysts of the Financial Statements to make informed decisions.

Before publishing the GAR in 2024, under Article 10, para 3, financial undertakings shall disclose for the period 1 January 2022 to 31 December 2023:

- the proportion in their total assets of the exposures to Taxonomy non-eligible and Taxonomy-eligible economic activities (see table below (a));
- the proportion in their total assets of the total exposures to central governments, central banks, supranational issuers and derivatives (as referred to in Article 7, paragraphs 1 and 2) (see table below (b));
- the proportion in their total assets of the total exposures to non-NFRD companies (as referred to in Article 7(3)) see table below (c));
- the qualitative information referred to in Annex XI (see table below (d)).

Credit institutions shall also disclose:

 the proportion of their trading portfolio and on demand interbank loans in their total assets.

In terms of reporting its EU Taxonomy eligibility and EU Taxonomy alignment the Group, prior to January 2024, the Bank is required to report on Taxonomy eligibility only. In this context, the respective requirement for the Group as a financial undertaking with the latest available data, as of 31 December 2022, is presented below (amounts in € million):

Table 42: Taxonomy eligibility (Article 10, para 3)

€mio	Article 10 (para 3)	Taxonomy eligible*	% coverage over Total Assets	Taxonomy non eligible**	% over Total Assets
(a)	Total Assets	9,084	11.6%	69,028	88.4%
	of which trading portfolio of which on demand inter-			224	0.3%
	bank loans			227	0.3%
(b)	Total exposure to central governments, central banks				
	and supranational issuers			25,731	32.9%
	Total exposure to derivatives			1,962	2.5%
(c)	Total exposure to non-NFRD¹ companies			5,945	7.6%

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 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 European Commission has two approaches to calculate the eligibility ratio: mandatory reporting based on information that counterparties publicly disclose; and voluntary reporting, which is an estimate based on proxies when the information about eligibility of the counterparties is not available. The Group's approach is to include the eligibility exposure for financial and non-financial undertakings under the mandatory approach, after capturing

the data published by these undertakings (both based on average of capital expenditure eligibility and turnover eligibility) and provided by the internal customer segmentation (i.e. SME, Large corporate, small businesses & professionals).

The Group's eligible exposures mainly include mortgages and assets acquired through foreclosure proceedings amounted to €8.3 billion, as well as eligible loans and securities amounted to €770 million 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 available when preparing this Annual Report.

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

However, a complete data collection has been a constraint when reporting taxonomy-eligible activities. The lack of robust data affects the presentation and accuracy of ratios for taxonomy-eligible activities, taxonomy non-eligible activities and non-NFRD entities.

The Complementary Delegated Act, which includes activities related to the nuclear and gas sectors, was adopted by the European Commission in 2022 and entered into force on 1 January 2023. The assessment of the eligibility of exposures for the financial year 2022 is based on disclosed eligibility KPIs for the financial year 2021, and these KPIs do not include activities under the Complementary Delegated Act. The Group is expected to have zero exposures connected to the prescribed economic activities.

Notes:

*"Taxonomy-eligible economic activity" means an economic activity that is described in the delegated acts adopted pursuant to Article 10(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 12(2), Article 13(2), Article 14(2) and Article 15(2), of Regulation (EU) 2020/852.

¹ 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.

8.1.6 ESG Governance, roles and responsibilities

Sustainability oversight at Board level

As per NBG's Corporate Governance Code, the Board is responsible for setting strategy, overseeing management and adequately controlling the Bank, with the ultimate aim of enhancing the long-term value of NBG and upholding the general corporate interest in accordance with the Law. The Board should focus on sustainability and consider, among others, climate-related and environmental risks when developing the overall business strategy, objectives and risk management framework, and exercise effective oversight of climate-related and environmental risks. Within this context, the Board should ensure that material environmental and social considerations are integrated into the Bank's strategy, business model and risk management framework and addressed in its public disclosures.

The Board of Directors, with the presence of the CEO and the Bank's competent executives, holds regular deep-dives on ESG Strategy, with Board Committees having included updates and discussions on developments relevant to ESG, such as discussions on ESG trends and regulatory developments at the Compliance, Ethics and Culture Committee and the Strategy and Transformation Committee, as well as discussions on Transformation Program initiatives relevant to ESG/Sustainability and on the Recovery and Resilience Facility (focused on green transition) at the Strategy and Transformation Committee. Furthermore, in the context of the CEO Monthly Report to the Board of Directors, Board Members frequently check on ESG related matters, whilst a dedicated to Sustainability and Innovation matters committee, the BoD Innovation and Sustainability Committee, was established to facilitate, among others, the oversight of the Bank regarding ESG aspects.

It is also noted that the Board of Directors Suitability Assessment Policy and Procedure stipulates particular provisions for the Board of Directors to collectively possess an appropriate understanding of those areas for which the Members are collectively accountable, and the skills to effectively manage and oversee the Bank, including, among others, ESG aspects. In that regard, a dedicated Board Training session took place in 2021 on ESG related topics, and more specifically it included a half day program hosted by the International Corporate Governance Network, with all Directors attending and with a certificate provided by the Organization as per their completion of the training.

Furthermore, within 2022 the Board has held deep-dive training sessions, including presentations by external consultants, covering ESG and Sustainability topics, assisted by the competent Board Committee per case, including for example matters concerning the Bank's ESG Strategy, the 2022 ECB Climate Risk Stress Test, ESG/climate risk/sustainable finance accounting and reporting update by external auditors, and a discussion about the inclusion of new metrics related to ESG issues in the RAF.

There are currently 7 Committees established at Board level which may be involved in relevant matters depending on the particular topic per case, while the Bank is in the process of further updating the Board Committee Charters, elaborating more on responsibilities relevant to ESG.

BoD Compliance, Ethics and Culture Committee

The Compliance, Ethics and Culture Committee assists NBG's Board of Directors in performing its duties among others in respect of 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, as well as in respect of overseeing the Bank's Corporate Social Responsibility policies, projects and activities.

More specifically its responsibilities include:

- Oversight of Policies the Bank adopts in compliance with regulatory framework and best practices (incl. on ESG and sustainability).
- Oversight of the management of the Bank's staff compliance and ethical conduct and assessment of the extent to which the Bank is managing its compliance risk effectively (incl. compliance risks stemming from ESG risks).
- Interaction with the Innovation & Sustainability Committee, with regard to long-term trends or significant developments esp. on ESG and sustainability.

The Committee convenes regularly, keeps minutes of its proceedings and reports regularly to the Board of Directors. During the first semester of 2023, the Compliance, Ethics and Culture Committee convened six times and its workings included among others the monitoring of developments in the regulatory framework and trends concerning ESG and Bank's related initiatives and the review and update of Compliance, Conduct, Data/Archive and ESG Policies (e.g. Market Abuse/Personal Transactions Policy, Physical Archive Management Policy, Personal Data Management Policy, Data Governance Policy, Group Outsourcing Policy, Suitability Policy on Insurance-based Investment Products, Cost and Charges Policy, Financial Instruments & Insurance Products Governance Policy).

BoD Innovation and Sustainability Committee

The established Innovation and Sustainability Committee formed at Board level (established by Board decision in February 2022) has as its purpose to act as a dedicated body to support the Board of Directors in ensuring there is:

- Continuous monitoring and tracking of important developments and long-term trends related to banking, innovation, IT, ESG and sustainability (incl. on matters pertaining to C&E risks).
- Awareness at Board level of how the banking/financial sector landscape is shaping, and updated knowledge of the factors that can affect the formulation of the Bank's long-term strategy, its performance/position in the market and the perception stakeholders may have about the Bank (incl. on ESG and sustainability).
- Out-of-the-box thinking, exploring and incubation of innovative ideas and practices (incl. on ESG and sustainability).

Within this context it may provide feedback to the Compliance, Ethics and Culture and other Committees, for further consideration. Furthermore, given the nature of its role, the Committee shall receive necessary inputs including by means of consultants/advisors providing information and support as required, indicatively in terms of how international developments and ESG trends may affect or be applied at the Bank. Additionally, the Committee cooperates with Executives having competence over issues relevant to its areas of activity, and any other Executive of the Bank or Group entities, as deemed appropriate in the discharge of its responsibilities. Finally, all Board Committees may be involved in relevant matters depending on the particular topic per case.

The Committee may convene with an estimated quarterly frequency and keeps minutes of its proceedings. During the first semester of 2023, the Innovation and Sustainability Committee convened two times and its workings included among others the:

- Review of the Bank's Digital Strategy and ESG Strategy, with special focus in the area of sustainable energy financing, transition to a sustainable economy/financed emissions and role-modelling environmentally responsible practices.
- Discussion/review of ESG issues such as rating agencies' assessments on ESG, criteria based on which the Bank's targets are set for the businesses, communication of the Bank's ESG strategy to investors, etc.
- Formulation of Proposals/arrangements for Board trainings, including in the areas of ESG, Digital, Embedded finance.

Board Risk Committee (BRC)

The BRC has competence over Risk Management issues as well as over matters relevant to Non-Performing Loans/Exposures. Amongst other key responsibilities, the BRC was responsible for the execution/delivery of the 2021 ECB Stress Test, the 2022 ECB Climate Risk Stress Test and the review of Stress scenarios & sensitivity analyses contributing to the Strategy setting and evaluation process, including Budget approval for 2022. Moreover, as noted above, the BRC is responsible for the inclusion of ESG related metrics in the Bank's Risk Appetite Framework, and the Bank's Risk Management Framework overall.

The BRC convenes regularly at least on a monthly basis, as well as extraordinarily, whenever deemed necessary by its Chair. Committee keeps minutes of its proceedings and reports regularly to the Board of Directors. During the first semester of 2023, the Board Risk Committee convened seven times and its workings included among others the:

- Review and update of ICAAP/ILAAP, Annual Review and Update
 of ICAAP/Stress Test Frameworks, Risk Appetite Framework
 with additions among others in the area of ESG/Climate &
 Environmental Risk, New Obligors Leveraged Transactions,
 Concentration Risk and refinements/reclassifications aimed at
 enhancing oversight and monitoring processes & Risk and
 Capital Strategy and ongoing monitoring of compliance.
- Oversight of the Bank's Risk related ESG projects (e.g. qualitative scorecard development & calibration, internal Stress testing framework, to incorporate ESG components and other updates).
- Briefings and monitoring of results of 2022 ECB Climate Stress

Other Board Committees with roles and responsibilities relevant to ESG risks

- Strategy & Transformation Committee: Regular updates on initiatives of the Transformation Program (incl. on matters related to C&E risks).
- Corp. Governance & Nomination Committee: Review of Board Governance Model and Committee Charters (incl. assignment on duties on C&E risks).
- HR & Remuneration Committee: Review and oversight of executive remuneration objectives and outcomes (incl. on matters related to C&E risks).
- Audit Committee: Assessment of Bank's capacity and capability to manage risks (incl. C&E risks) through relevant Audit reviews.

ESG Management Committee

The Committee was established in 2021 and operates via a specific Charter. Its purpose is in the context of its strategic approach and commitment to continuously promote sustainable development and responsible entrepreneurship, aiming at effective management of ESG, sustainability and sustainable financing issues, in line with regulatory requirements and taking into account best practices as per international treaties and initiatives. The Bank established the ESG Management Committee to contribute to the governance of multiple aspects of NBG's ESG strategy development and implementation.

Its purpose encompasses:

- Fostering the Bank's strategic commitment to sustainable development and corporate responsibility.
- Managing ESG matters incl. environmental performance, health and safety, social, CSR, corporate governance and other sustainability matters.

Its responsibilities include:

- Ensuring adherence to the relevant regulatory framework for ESG and sustainability (incl. on matters relevant to the management of C&E risks).
- Considering trends and best-practices (over and above the legal framework/regulatory expectations).
- Determining the Bank's overall strategy regarding ESG and sustainability issues (incl. matters relevant to the management of C&E risks).
- Overseeing execution of the Bank's ESG strategy (incl. on matters relevant to the management of C&E risks).
- Deciding on ESG and sustainability KPIs and targets (incl. for C&E risks and greenhouse emissions).
- Monitoring and assessing performance against ESG and sustainability KPIs and targets (incl. for C&E risks and greenhouse emissions).
- Deciding on the policies, initiatives and actions that result in mitigating and/or reducing the environmental impacts and footprint of the Bank.
- Approving the Bank's disclosures concerning non-financial information and regular public disclosures regarding ESG and sustainable financing issues.
- Overseeing internal and external communications with respect to ESG and sustainability issues.

The ESG Management Committee is chaired by the Chief Executive Officer (CEO) and Members of the Committee are the following GMs:

- General Manager Retail Banking
- General Manager Group Compliance & Corporate Governance
- General Manager Group Risk Management, Chief Risk Officer ("CRO")
- o General Manager Corporate and Investment Banking
- General Manager Transformation, Business Strategy & International Activities
- o General Manager Group Chief Financial Officer ("CFO")
- General Manager Chief Operations Officer ("COO")
- General Manager Group Human Resources
- o General Manager Group Marketing
- General Manager Group Real Estate.

During the first semester of 2023, the ESG Management Committee convened 2 times.

Group Corporate Social Responsibility & Sustainability Division

A dedicated Group Corporate Social Responsibility & Sustainability Division has been established within the Bank, operating under the Group Chief Compliance and Corporate Governance Officer. The Division is competent for corporate social responsibility, as well as sustainability and climate change related issues, activities and projects of the Bank and provides guidance to the first line of defense. Executives of the 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 the Bank's Corporate Social Responsibility policies, community investment, environmental, climate change, social and other similar projects and activities.

Among its responsibilities are included:

- Monitoring of legal and regulatory developments with respect to sustainability matters (incl. C&E risks) and advice on their implementation.
- Proposal of required measures, to ensure compliance with applicable laws, regulations & standards.
- Reporting on measures to ensure compliance with legislative framework and standards regarding ESG risks and/or mitigation of relevant compliance risks.
- Monitoring of compliance measures with increasing focus on liability, litigation and reputational risks arising from ESG (Bank-own or client) matters.
- Implementing and monitoring corporate & social responsibility (CSR) initiatives.
- Preparation of the annual non-financial reports including the non-financial statement and sustainability report.

Climate & Environmental Strategy Sector

A new, independent sector, the Climate & Environmental Strategy Sector, has been set up to strengthen NBG's ESG Governance and the shaping and execution of the Bank and Group's ESG Strategy. To serve its mission, the Sector bears responsibility to:

- Actively support the Bank and Group's Management in shaping NBG's climate and environmental strategy, as well as enabling and monitoring its execution.
- Co-ordinate involved 1st LoD units in identifying, articulating, road-mapping, and carrying out specific initiatives pertaining to Climate & Environmental target-setting and implementation actions to achieve the Bank's C&E strategy.
- Enhance and deepen the awareness of how the organization impacts and is impacted by the Environment and Climate Change, and of NBG's institutional role in promoting the Bank's and its clients' transition to greener and more sustainable models.
- Develop, keep improving, and safeguard methodologies and tools used for measuring and monitoring Climate & Environmental KPIs, relevant to the 1st LoD activity, while also measuring carbon footprint related metrics and other C&E KPIs.
- Provide input, in cooperation with the 1st and 2nd LoD Units, to internal management reports, to external disclosures, as well as to ESG Raters and investors.

8.1.7 NBG Governance on C&E risks: 3LoD model

The Bank has assigned the responsibility for the management of climate related and environmental risks throughout its organizational structure, cascading down through the 3 lines of defense and has simultaneously established new Committees (BoD Innovation and Sustainability Committee and ESG Management Committee) and new units (Group CSR and Sustainability Division, Climate and Environmental Strategy Sector) to further enhance management and oversight of C&E risks and ESG matters overall (as described in 8.1.6)

- The Group CRO is accountable for the supervision of C&E risks and closely collaborates with the GM Transformation, Strategy & International and the GM Group Compliance & Corporate Governance for all major C&E topics.
- The Group Chief Credit Officer and Credit Divisions ensure incorporation of ESG assessments within lending policies & processes.
- The Group Strategic Risk Management Division has been assigned the role to exercise a holistic overview on C&E risk management activities, being the central C&E reference point within Risk Management and the primary liaison between Risk Management and Business Strategy stakeholders for ESG matters, with a main focus on C&E. It aims to align C&E risk management processes involving the different Risk Divisions/experts across risk types (including the execution of C&E Stress testing). This is aligned with NBG's Enterprise Risk Management ("ERM") concept, which is also applicable for the C&E risk area.
- C&E risks are integrated in the existing risk identification, measurement and assessment processes per primary risk type, therefore each Risk Division (Credit Risk, Market & Liquidity Risk, Operational Risk, Strategic/Business Risk):
 - measures, manages and mitigates C&E risks/drivers and their impact on the existing financial & non-financial risk types;
- incorporates C&E risks/drivers in their internal frameworks, policies, procedures and reporting framework and implements enhancements as needed.

Table 43: ESG Governance - Three Lines of Defence

**Transformation & Strategy: Coordination and support of involved 1st Line units in the development and execution of C&E strategy through new C&E Strategy Sector; key crossfunctional efforts included in ESG workstream of NBG's Transformation Program. **Business Units (Corporate & Investment Banking, Retail Banking): Risk-taking and management of C&E risks (incl. sustainable financing, origination strategies to reduce financed emissions). **Other 1st Line Functions (Real Estate, Finance/Procurement, IT/Operations, HR, etc.): Support/enablement of management of C&E risks (incl. actions to reduce greenhouse emissions). **Risk Functions: Identification, assessment, measurement, monitoring and reporting of C&E risks within the Bank's risk management framework. Strategic Risk Management Division has been assigned the role to exercise a holistic overview on C&E risk content, supported in terms of coordination by the Risk Culture & Risk PMO Division. **Compliance & Corporate Governance: Identification of legal framework/regulatory expectations with respect to C&E matters, provision of advice and appropriate guidance to Banks' units to ensure relevant compliance to Banks' units to ensure relevant compliance to Banks' units to ensure relevant compliance risks are duly managed, and updating of Management Body on measures to be taken to ensure compliance, through the CSR & Sustainability Division. **Internal Audit: Assessment of Bank's capacity and capability to manage C&E risks through relevant Audit diagnostics and reviews.	1001C 73. L	Table 43: ESG Governance - Three Lines of Defence			
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The above setup is supported in terms of coordination by the Risk Culture & Risk PMO Division.

8.1.8 ESG Internal Framework (Policies, Codes and Procedures)

NBG constantly seeks to ensure that its contribution substantially and positively impacts the country and its people, always looking ahead to the next day of Greek society. The Bank aims to create positive economic and social impacts for its Stakeholders and more broadly for the economies and societies where it operates, through its activities (the provision of funds, products and services), within its role as an employer, as well as with the deployment of specific programs of CSR actions.

NBG Group Sustainability Policy

As of 2021 the new NBG Sustainability Policy has been approved by the Board of Directors and the Audit Committee, as per the provisions of the applicable legal framework, who reviewed and opined on the Sustainability Policy as part of their Report to Shareholders.

NBG Group Sustainability Policy is publicly available on its website and is also communicated to its employees through Sustainability awareness announcements at NBG's website.

The Policy adheres to the requirements of the applicable legislative and regulatory frameworks, as well as international practices included in international conventions and initiatives and aiming at sustainable development, corporate social responsibility and business ethics.

Fully aware of the significance of our role in contributing to sustainable development, the purpose of the Policy is to set the framework for the development of actions that assist in the management of economic, social, governance and environmental impacts of the Bank and the Group of Companies and mainly lead in:

- Reducing and, where possible, offsetting our environmental impacts (including those related to climate change), as such arises from the financing of our customers' activities, as well as from the operation of NBG itself (including energy consumption of buildings);
- Generating long-term value for our Stakeholders, and the economy at large and the communities where all our Group companies operate in Greece and abroad;
- Undertaking initiatives and innovative actions in the fields of Corporate Governance, Corporate Social Responsibility and Business Ethics, in addition to ensuring compliance with the current legal and regulatory framework for these issues, thereby contributing to our vision of making NBG the Bank of First Choice;
- 4. Protecting the reputation and reliability of the Group and the cultivation / strengthening of our renewed value system.

ESG in Loan Origination

In response to ECB's Climate & Environmental Guide expectations and as part of executing its short-term action plan included in the Thematic Review exercise, NBG has already effectuated enhancements in its lending policies and processes, incorporating the assessment of E, S and G risks of its corporate borrowers. This ESG risk assessment, in which climate and environmental factors are a prominent component, of the "E" part, is performed via an ESG Obligor Assessment questionnaire at the stage of loan origination. The corporate obligor is required to submit responses (qualitative and quantitative), which are fed into respective models (tailored to size and sector), and yield a standardized ESG risk vulnerability outcome, that is co-evaluated together with transaction-specific attributes (in line with the TSC of the 2 first Environmental Goals of the EU Taxonomy, as reflected in NBG's Sustainable Lending Criteria Framework), at the stage of credit assessment.

Social risk is currently not assessed in isolation; instead, social factors are being evaluated together with climate and environmental and governance-related ones in the process (and with the tools) of the ESG Obligor Assessment, taking place at loan origination and credit assessment.

NBG includes a description of the enhancements effectuated in its lending policies and processes, incorporating the assessment of social risk of its corporate borrowers (e.g., existence and validity of Human Rights policy, existence and validity of Health & Safety policy and/or management system e.g., ISO, OHSAS, and/or zero-accidents rule, complaints management process & system, activities' impact on local communities, non-compliance regarding social matters), performed via an ESG Obligor Assessment questionnaire at loan origination. The identification and quantification of social risk is technically- an area not as advanced as climate and environmental risk, therefore with relatively large room for different interpretations and weighing (as it is not standardized with respective 'technical screening'-type criteria or ways to depict and stratify the risk across portfolios, business lines, sectors, as is done for example via the financed emissions metric for transition risk). Hence, lacking currently a solid measurable baseline, the setting of specific targets and limits in the conventional sense, as well as of

objectives adhering to such targets and monitoring thereof, is not something the Bank is pursuing explicitly at the moment.

Given that the definition and the quantification of social factors and risks impact has not yet matured, any further updates/enhancements to the business strategy, financial planning, and risk management practices with respect to social factors and related risks will be dully added and included in the upcoming disclosures.

Finally, via the 'G" part of Obligor Assessment, Governance risks are assessed (e.g. Regulatory Compliance, Transparency, Business Ethics, Remunaration, etc.)

In cases where increased ESG risk vulnerability is identified, NBG requires from its clients to submit relevant action plans and monitors those as part of the credit monitoring process. So far, we are not looping the collective outcome of these assessments back to adjust the Bank's business strategy, in a mechanic/automated way. Rather, we address it on a client by client basis, while we keep collecting such data and information to enhance our database, with the aim to evaluate it holitsically in due course. (Please also see section 8.2.3 Incorporation of ESG in the Credit Granting and Monitoring Process).

Moreover, as a standard practice, NBG conducts evaluation of its service providers on ESG issues, such as human/employee rights, work health and safety, social equality/solidarity, child labor etc. These principles and expectations on the part of NBG apply to any kind of employment relationship, as well as to any third party collaborating with the Bank or a Group company, either within the context of providing on-going services or specific project work.

Remuneration Policy: Alignment with ESG objectives

In line with regulatory provisions, the NBG Group Remuneration Policy is designed with particular attention to avoiding incentive elements (especially in variable compensation) inducing behaviors not aligned with the Bank's aim for sustainable business results or inconsistent with its risk appetite.

Specifically, variable remuneration is supported by the annual performance management process assuring consistency and clarity of relevant performance objectives, including environmental (and climate-related), social and governance (ESG) objectives, as well as broader behavioral expectations aligned with business strategy, culture and values.

The PMS incorporates ESG criteria, and starting from 2021, specific ESG-related targets and key performance indicators (KPIs) have been established for the Top Management. Each year, the ESG-related targets and key performance indicators (KPIs) are further strengthened and refined, becoming more specific and comprehensive.

Other ESG related policies and procedures

Code of Ethics

The Code of Ethics sets out clearly the ethical principles and values, as well as the rules of conduct upheld by the Bank and Group. To this end, the Bank, is aware of its responsibility to respect human rights, meaning avoiding infringing on the human rights of others and addressing such impacts where they occur. In this context, the Bank and Group companies express their commitment to observe and promote values such as integrity, accountability, honesty, transparency, trust, equality and high ethical standards in all operations.

The Bank highly appreciates the importance of ethics and ethical behavior. Therefore, the relevant issues are escalated to Board of Directors level. Specifically, as it is described in the charter of the Board Compliance, Ethics & Culture Committee, its purpose is to assist the Board of Directors in performing its duties in respect of enhancing the internal ethics culture and business integrity, by:

- ensuring that the highest standards of ethics and integrity are applied throughout all of the activities of the Bank in accordance with international best practice; and
- overseeing senior management's efforts to foster a culture of ethics and compliance within the Bank and the Group, to enhance the internal ethics culture and business integrity and to discourage unethical behavior.

NBG Group Policy against Violence and Harassment at Work

The development of a working environment that respects, guarantees and promotes the right of every person to work without violence and harassment is a commitment and priority for the Group of Companies of the National Bank of Greece. In this context, the purpose of the newly adopted Policy is to establish a specialized framework for the prevention and control of all forms of violence and harassment that occurs, whether related to or arising from work, including gender-based violence and harassment, as well as sexual harassment. It is noted that the Policy is in accordance with the provisions of the International Labor Convention No. 190 for the elimination of violence and harassment in the world of work, which was ratified by Article 1 of Greek Law 4808/2021, as well as the provisions of articles 2 et seq. of Greek Law 4808/2021.

NBG Group Internal Violence and Harassment Complaints Management Policy

To the same direction, and in order to best implement the Group's commitment to tackling and – ultimately – eliminating violence and harassment in the workplace, the Bank implements the Internal Violence Complaints Management Policy and Harassment, which provides guidance on the credible reporting of an incident or incidents of violence and harassment at work. In general, the Bank encourages all those involved in the scope of the Policy to report any form of violence and harassment that occurs during, or is associated with, the work, including violence.

Health and Safety

Health and safety in the workplace remain a top priority both for the Bank and the Group companies, in order to ensure a safe working environment, enhance the quality of employees' professional life, and prevent any associated risks.

The Bank has developed a Safety Regulation which is aiming at defining the required actions/procedures and authorities and responsibilities of the officers involved for the prevention and handling of fire, emergencies, and natural disasters.

Accordingly, the necessary measures are taken both regarding the physical protection of customers during their presence in the Bank's premises, as well as the safeguarding and security of their assets

The Bank also, in implementation of Law 3850/2010, has put into effect the Regulation for the Protection of the Health and Safety of NBG employees, while for health and safety issues the Bank has set up the Staff Health and Safety Committee of NBG Employees.

The Committee consists of elected employees' representatives, as well as a representative of the Bank with responsibility for the protection of Health and Safety of employees appointed by the Board of Directors.

The Health and Safety Committee of NBG Employees convenes on a quarterly basis and aims to improve the working environment and the compliance with health and safety requirements.

NBG, in seeking to address health and safety issues as effectively as possible, holds seminars on related issues, such as fire safety (including legislation), crisis management etc.

Responsible Procurement / outsourcing

Supporting its longstanding commitment to responsible operations, NBG has adopted policies, regulations and processes which are given formal substance in relevant Codes of Conduct ensuring transparency and impartiality as well as avoidance of conflicts of interest in its supplier selection and implementation of technical projects. NBG uses a Suppliers Relationship Management System (SRM-SAP), which facilitates cooperation with its suppliers across most of the business sectors. Pursuant to the institutional framework, all parties involved in procurement and technical projects must be aware of and conform with the Bank's and the Group's Code of Ethics, which also applies to outsourcing and technical projects. The Bank reviews and evaluates its suppliers (in terms of quality, certifications, respect for human/employee rights, etc.) on an ongoing basis.

Regular sample qualitative and quantitative controls are carried out for every order and delivery of goods/equipment, etc. In 2022, there were no confirmed incidents where contracts with business partners were terminated or not renewed due to violations related to corruption. All prospective suppliers are under the obligation to comply with Corporate Social Responsibility requirements (documenting compliance by sending relevant supporting material), as these are stipulated in the relevant EU Directives, on issues such as:

- Environmental protection.
- o Child labour.
- Work health and safety.
- Social equality/solidarity.

All NBG suppliers resulting from tender procedures comply with this obligation. Furthermore, the Bank has developed:

- a supplier bribery risk assessment through a specially designed questionnaire, where the Bank assesses the bribery/corruption risk its Third Parties may pose to the Bank; and
- NBG Group's Outsourcing Policy, as per which, among other controls, an ESG questionnaire is enacted for the service providers and relevant assessments are carried out.

NBG Customer Complaints Management Policy

To manage effectively customer complaints, the Bank has introduced a Customer Complaints Management Policy governing in detail customer complaints management and its key principles.

Also, the Client Conduct Sector which lies in the independent compliance function undertakes to respond promptly to grievances filed either directly by the Bank's customers or by other bodies. The Board of Director's Compliance, Ethics and Culture Committee oversees, among others, conduct issues with a view to ensuring fair treatment of customers (such as products/services design and suitability, sales processes, transparency of fees, satisfaction/complaints) and that the Bank is conducting business in the right way. More specifically, regarding the handling of complaints the Committee:

 Reviews reports submitted by the Group Compliance and Corporate Governance Function on customers issues (such as customer perceptions / customer satisfaction data (survey results)/ customer complaints etc). Monitors and reviews (via the Compliance Function) the procedures on the basis of which the Bank manages centrally all complaints submitted by the Bank's clients so as to ensure the resolution of the issue in a transparent, impartial and objective manner, within the stipulated timeframe, as well as relevant Ombudsman enquiries and recommendations.

Additionally, the Committee receives and reviews complaints related to Board of Directors members and Senior Executives of the Bank.

Complaints regarding the environment

The Bank always adheres to relevant environmental regulations and the applicable legislation. Regarding the Environmental Management of its operations, and in the issue of resolving environmental complaints, during 2022, 7 complaints regarding the Bank's environmental impact were filed via official grievance mechanisms and were settled within the year. The said complaints concerned the following issues: condition of external areas/facades of Branches, repair of damages and air quality or cleanliness inside the Branches. The Bank always makes every possible effort to comply with the relevant regulations and the applicable legislation. In this context, the Bank completed all the appropriate measures regarding the cleaning of buildings and the restoration of any damages.

In 2022, the Bank has not identified any non-compliance with environmental laws and/or regulations, and no fines were imposed on the Bank regarding the environment.

Customer protection & Marketing practices

In its endeavor to remain fully compliant on an ongoing basis with its legal and regulatory requirements, the Bank implements a procedure for controlling newly-launched products and services, according to the regulation for the introduction, modification, withdrawal of the products and services of the Bank. In this context, product characteristics are checked regarding regulatory compliance while the total text and contents of contracts, as well as terms of use and forms providing pre-contractual information, that are intended for contractual agreements between the Bank and its customers are updated on the basis of current guidelines, legislation or business decisions by the Bank's legal services and the Group's Compliance function and then communicated to customers according to procedure also subject to the applicable regulatory framework.

With a view to coordinating the actions required to promote the Bank's corporate identity, the Bank has established the Strategic Communication Committee. The Committee's duties include the approval of programs regarding the promotion of the Bank's corporate image, products and services, as well as the evaluation of proposals for the best development of the Bank's website and alternative channels as a means of marketing its products and services.

Furthermore, specific control procedures are also followed before the launch of any information/promotional activity regarding the Bank's existing and/or new products and/or services, by the competent Compliance and Legal Units. The programs we provide are in accordance with the regulations and optional rules on communication and marketing, aiming at the customer's complete information on the benefits of our products and services. Thus, we ensure that our communications and promotional material are consistent with the provisions of the Hellenic Code of Advertising-Communications, the provisions on unfair competition and consumer protection and the overall existing Greek legislation. We

monitor and strictly adhere to the regulations/ guidelines of the Hellenic Communications Control Council.

Combating bribery and issues related to corruption

The Bank's activities entail exposure to corruption and bribery phenomena, which if not appropriately and timely managed, they may present a significant risk for the Bank, and could adversely affect its financial results, with a serious impact on the Bank and its subsidiaries' reputation, as well as on the further development of its activities, while at the same time they could cause adverse effects on the interests of its clients, shareholders and employees.

In this context, preventive control mechanisms are applied so as to safeguard against any potential risk of bribery and corruption to which the Bank may be exposed in the course of its business/operations. To that end, the Bank's anti-bribery program consists of various essential components, such as anti-bribery and anti-corruption risk assessments, policies and procedures, tone from the top, financial and non-financial controls, raising concerns, management information and periodic reporting, and records' keeping.

This approach is reflected in the Codes and Policies that the Bank has adopted, on the controls embedded within the procedures followed in the Bank's day-to-day operations and on the monitoring and audit processes applied.

The Bank has in place procedures and internal controls which serve to mitigate potential risk and ensure that the Bank is compliant with laws and regulations, which in the event of non-compliance could have a material effect on the Financial Statements. The effective operation of these procedures and internal controls are independently monitored by the various Risk and Control Functions and audited periodically by the Group Internal Audit Function, while the Audit Committee of the Bank's Board of Directors and the Board of Directors through its committees are duly and timely informed through reporting on internal controls, as well as any issues/deficiencies/findings classified as F3 or F4 by the various Risk and Control Functions.

Additionally, in accordance with particular requirements within the applicable regulatory framework (Bank of Greece Governor's Act 2577/2006) imposes in this respect, external auditors review and assess the effectiveness of the Bank's Internal Control System on a three-year basis. In June 2022 the Bank obtained the assessment performed by the external auditor for the period 2019-2021 with no significant findings.

A set of Codes and Policies which the Board of Directors has approved include several measures against the risk of bribery and corruption. Indicatively, such measures are incorporated in the NBG Group Code of Ethics, the Code of Ethics for Financial Professionals, the Anti-Fraud Policy, the Conflict of Interest Policy and the Anti-Bribery Policy. Furthermore, process level controls are in place for the timely prevention or detection of fraud risks. Such control types include clearly defined approval / authorization levels, verifications, physical controls, reconciliation controls, controls over information used in the control and controls with a review element. The nature of controls in place are a mix of automated, semi-automated or manual.

At a further level, the Whistleblowing Policy in force, provides for the existence of appropriate communication channels enabling the submission of whistle-blowers' reports, both in case these may come from within the Bank as well as in case such reports are being submitted by third-parties. The Board of Directors is committed to prevent bribery and corruption and promotes the establishment of a culture against them, according to which any form of bribery and corruption is non-acceptable, while it is responsible for approving the relevant Policies, as well as overseeing its implementation and periodic assessment.

Further, mandatory learning programs on the NBG Group's applicable Code of Ethics, which, focuses, among others, on bribery, corruption issues, and Whistleblowing Policy, as well as an e-learning program dedicated to the Whistleblowing Policy, are provided to all employees of the Bank, and all personnel has access to the internal e-communication network of the Bank (intranet), through which they are able to get prompt and full information on all key matters regarding Group's developments and operations, including internal communication announcements, internal circulars, policies that the Bank has in place etc.

In this context, with the Bank laying great emphasis on ensuring that the highest standards on ethics and integrity are applied throughout all of its activities in accordance with international best practices, the Bank has established the Compliance, Ethics and Culture Committee of the Board of Directors.

Lastly, the Group Compliance and Corporate Governance Functions were certified with the international standard ISO 37001:2016 (Antibribery management systems) for the antibribery management systems in line with the above standard.

With a view to the Bank's full compliance with the current legal and regulatory framework, as well as international best practices and guidelines regarding the combating of corruption and bribery, and considering that these phenomena are very common in international business transactions and undermine the effective corporate governance of the companies, the Bank has in place the following arrangements, Policies and Codes:

- NBG Code of Ethics for Financial Professionals;
- o Group Anti-bribery and Anti-corruption Policy;
- NBG Group Whistleblowing Policy;
- NBG Group Anti-Fraud Policy;
- Conflict of Interest Policy for Board Members, Senior Executives and other NBG Related Parties;
- Conflict of Interest Policy;
- o Policy for Connected Borrowers of the Bank and the Group;
- AML/CFT Policy, which incorporates New Customers Acceptance Policy;
- AML/CFT Policy on Cross-border correspondent banking relationships;
- NBG Group Sanctions Policy;
- NBG Group Policy for Virtual Assets.

Personal Data Management Policy

NBG recognizes and attaches particular importance to the obligation of both the Bank and its Group companies to comply with the applicable legislative and regulatory framework, in general, on the protection of natural persons to the processing of personal data. The Bank and its Group companies collect and manage specific information, which concerns their employees, shareholders, customers with whom they maintain any kind of business relationship, persons with whom they maintain a customer relationship, and third parties in the context of any relationship other than those mentioned above. This information, which contains personal data, is managed in a lawful manner, regardless of the means of collection or storage, ensuring compliance with the current

legislative and regulatory framework and the provisions for confidentiality.

In view of the above, NBG has adopted the "Personal Data Management Policy", which has been revised according to the requirements of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

The Personal Data Management Policy:

- is binding on the Bank and the Group companies as it establishes the basic principles that govern the processing of personal data;
- is binding on all members of the Board of Directors, senior executives, employees of the Bank and the Group companies, and in general all persons employed in the Group either by employment contract or otherwise (including Management Advisors, Special Associates, Staff of companies associated with the Bank or the Group companies);
- is binding on all third parties that provide services to the Group or in the name and on behalf of the Group (including partners, intermediaries, agents and any other persons who cooperate with the Group under outsourcing agreements or otherwise);
- covers all activities of the Group in Greece and abroad, including all operations carried out by any Bank Unit, by a subsidiary or an associated Company, agent, advisor or third party acting on behalf of or in collaboration with the Group;
- covers all forms of processing that are carried out in the context of servicing the operations of the Bank and the Group companies and relate to the maintenance of either physical or electronic data.

Policy on Donations, Sponsorships, Charity Contributions and other Actions of the Group

The NBG Group has developed and implemented, since May 2016, Policy on Donations, Sponsorships, Charity Contributions and other Actions of the Group. This Policy aims, among others, at setting specific principles and rules concerning actions related to donations, sponsorships, charitable contributions, scholarships and other related activities in the context of this Policy, at ensuring high level of ethics on donations, complying with the applicable legal and regulatory framework regarding actions that fall into the scope of this policy (e.g. transparency) as well as adopting procedures that promote transparency in NBG Group's donations.

According to the Policy, the NBG Group shall not undertake and/or participate in actions to support political organizations, parties or movements. This Policy applies in parallel, complements and is complemented by the provisions set out in other Group Policies, such as the Conflict of Interest Policy for Senior Executives and the Anti-Bribery Policy.

Furthermore, in accordance with international best practices related to donations, sponsorships and other related actions and in compliance with the provisions of Article 6 of Greek Law 4374/2016 regarding transparency in the relationships between banks and media companies and sponsored persons, the Bank discloses information on all payments made within the relevant fiscal year, to media companies and sponsored persons.

8.2 ESG Risk Management Framework

Acknowledging the importance of ESG related risks, the Bank has updated its Risk Taxonomy Framework, by defining such risks as "transversal", i.e. considers them as drivers of existing types of financial and non-financial risk (rather than stand-alone risk types). In line with the sequential approach, C&E risks have been prioritized. More specifically, the Bank:

- Proceeded with governance arrangements and assigned the responsibility for the management of C&E risks across its organizational structure, cascading down through the three lines of defence and established new committees (Innovation and Sustainability Committee and ESG Management Committee) to steer and oversee relevant initiatives.
- Proceeded with the identification and materiality assessment of such risks and their incorporation in the overall Risk Management Framework, committing to a concrete action plan for monitoring, assessing and managing the particular risks going forward.
- Incorporated ESG risks/drivers in the Risk Management Framework of the existing risk types and implemented the necessary enhancements into their area of expertise, as follows:
 - ESG related qualitative and quantitative risk metrics (C&E metrics for monitoring purposes) have been introduced to the Risk Appetite Framework of the Bank.
 - The Bank incorporated the assessment of ESG risks in its Credit Granting & Monitoring Process of the corporate portfolio. In this context, documentation, and tools (i.e., ESG process guidelines, user manuals, ESG scoring methodologies, ESG specific scorecards) have been developed and are used by the corporate underwriters in order to assess and classify obligors and transactions in terms of ESG related risks and sustainability lending criteria.
 - The Bank aligned the Operational Risk Programs with the inclusion of ESG risks based on the requirements set by the competent authorities.
 - The Bank considers C&E risks impact as material, in the context of its Strategy and Business Model sustainability going forward.
 - The Bank has incorporated C&E risks in its Stress Testing framework to assess vulnerabilities related to climate risk components. The selection and examination of appropriate climate scenarios are applied per material risk type and transversally, on the basis of proportionality. The Bank had participated in the 2022 ECB Climate Stress Test and leveraged the relevant feedback, internal processes, data and infrastructure alongside with external sources and proxy models for further enhancement of C&E Risk Management capabilities.
- The Bank performs an assessment and incorporation of climate related and environmental factors in the normative and economic perspectives in its ICAAP. The methodological approach to assess C&E risks involves:
 - A distinct mapping of C&E risk drivers to existing financial and non-financial types of risk;
 - Materiality assessment of environmental risks, beyond climate: and
 - Incorporation of forward-looking perspective for risk types with material C&E risk impact.

- The Bank continuously enhances its C&E risk data, monitoring and reporting. In this context:
 - o Implemented international practices and standards.
 - Implemented ESG information and IT infrastructure-related enhancements to phase-in the Pillar III disclosures, starting with 2022 information, with all required qualitative and quantitative elements concerning ESG risks, as per the relevant EBA Guidelines. The Bank is developing on an ongoing basis further systemic integration required throughout the transitional period until June 2024 (full implementation).

8.2.1 ESG data and IT infrastructure-related enhancements

The Bank appreciates the significance of data-driven decision making, as well as well-supported reporting, and has set to short term goals the relevant actions for data enhancements and IT infrastructure adaptation to be able to deliver the transparency implied in a higher frequency of reporting both for management and regulatory purposes.

In this context:

- The Bank has in place an Operational Risk Taxonomy through the introduction of additional Level 3 and Level 4 loss event types, in order to capture environmental issues;
- The Bank has introduced and monitors through the KRI Dashboard operational risk KRIs for environmental factors;
- Important emphasis has been pledged to the ongoing improvement/enhancement of data availability, quality, management, and governance. Initial database development actions are already in place and necessary tasks for the data collection, data gaps and data remediation have already been launched and implemented to enable analyses regarding portfolio diversification going forward, income reliance and sensitivities;
- Specific data mart infrastructure has, already, been exploited, to cover information and data needed for the results of Climate NII Stress Test, as well as for internal business risk analysis and management information purposes;
- The Bank has already adopted the relevant Climate Stress Test ESG related data aggregated information within Integrated Forecasting & Stress Testing Platform to enhance the forecasting process towards an ESG-oriented output across all relevant risk areas;
- The Bank has incorporated in its Transformation Program specific initiatives to enhance ESG data and IT infrastructure (see Chapter 3).

With the above, the Bank establishes a good basis for conveying the impact of C&E risks on the Bank's business model, strategy and risk profile, enabling the Management Body to comprehend potential business vulnerabilities to such risks and steer accordingly. As the Bank's internal reporting capabilities mature and data availability allows for wider and/or more in-depth analysis, the demonstration (conveying) of such impact is expected to become more apparent and more insightful.

8.2.2 Risk Appetite Framework: ESG quantitative statements

The Bank has already introduced into its Risk Appetite Framework ('RAF') two Key Risk indicators, namely the ESG composite index and the Digital active users, in order to be linked with regulatory requirements in relation to ESG risks. Both KRIs' breach escalation process is performed at ExCo level. Additionally, the Bank has supplemented its RAF with four new metrics for monitoring purposes, as presented in the below table.

In addition to the above:

- an ESG-related dimension is included in the Credit Concentration Risk metrics - "Top-20 obligors credit limit" and "Top 10 standalone SPVs", positively accounting for the financing of transition plans to a green economy; and
- the Bank has no appetite for financing of activities involving environmental risks that have been prohibited by EU regulations.

The Bank is planning to enhance its RAF with the introduction of additional quantitative indicators and respective thresholds, aiming at setting its risk appetite towards financing of ESG sensitive sectors and in relation to its strategic direction and business model priorities. This will become feasible as methodological approaches mature, quantification/analytical capabilities develop, and additional climate and environmental data becomes available from the implementation of the ESG Credit Assessment and EU Taxonomy, as well as the development of the ESG related Transformation Project initiatives.

Table 44: ESG indicators in Risk Appetite dashboard

Metric Type	Indicator name	Remarks	
Risk appetite limit	ESG rating	The metric addresses the perception of market regarding the ambition and pace of implementation of the ESG strategy; to this end, a composite index is used, which comprises ratings from 8 important rating agencies.	
Risk appetite limit	Digital active users	The metric refers to the level of Digital active users that have used NBG's Internet Banking and/or Mobile Banking at least once in the last 12 months and aims to monitor the execution of digital transformation strategy to preserve competitive position/business model viability.	
For monitoring	"Emission Intensive" population	The purpose of the metric is to identify the financed "emission intensive" Corporate population, also considering the credit quality of the underlying obligors.	
For monitoring	EPC allocation of new mortgage portfolio disbursements	The purpose of the metric is to track the energy efficiency of the Real Estates collaterals of new Mortgage disbursements.	
For monitoring	Core income reliance on CPRS perimeter (NFCs)	The metric refers to the Core income (i.e., Gross interest income and fee and commission income) reliance on economic sectors that are potentially highly affected by climate – transition risk (based on 'CPRS' classification), included in the perimeter of Non-Financial Corporations ('NFCs').	
For monitoring	Δ Financed GHG emissions	The metric refers to the evolution of Scope 3 financed emissions for specific Asset classes/Sectors. The calculation will be performed within 2023 as the methodology for the measurement of GHG emissions is under development, including a complete internal Financed Emissions proxy measurement model for the standard use in historical calculations (part of the Transformation program for 2023).	

8.2.3 Incorporation of ESG in the Credit Granting and Monitoring Process

The Bank in Q1.22 incorporated the assessment of ESG Risks in its loan origination, credit-granting and monitoring process for the corporate portfolio. In this context, documentation and tools (i.e., ESG process guidelines, user manuals, ESG scoring methodologies, ESG specific scorecards) have been developed and are used by the corporate underwriters in order to assess and classify obligors in terms of ESG related risks. Overall, the ESG assessment consists of two components:

- The ESG Obligor assessment, which is performed for all Corporate clients within the ESG Sensitive Perimeter (internally defined based on industry sector sensitivity to climate-related factors, applying the Climate Policy Relevant Sectors classification), based on a recently developed set of sector-specific questionnaires (scorecards), in order to capture the material ESG topics of each obligor, as defined in relevant international standards (e.g., Sustainability Accounting Standards Board, GRI standards).
- The ESG Facility Assessment, which is based on the evaluation of the characteristics (e.g., maturity, loan's purpose alignment with the Sustainable Lending Criteria Framework) of the loan transaction that affect the ESG performance. The Sustainable Lending Criteria Framework establishes 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 above process results in a score and a grade for each component (Environmental, Social and Governance), as well as for the overall ESG assessment. The overall ESG score is then classified as Increased, Medium or Low based on the overall ESG performance of the obligor and the assessment of the Transaction and is used for both loan origination and ESG risk monitoring purposes.

Going forward, the Bank is planning to further enhance the incorporation of ESG factors in its Credit Risk Management Framework and, therefore, key activities are being included in the Transformation Program as follows:

- Scorecards to be fully tested for provision of adequate riskbased info and rolled-out to loan origination for existing clients;
- Integration of C&E risks in lending policies (incl. exclusion list, thresholds, limits);
- Risk classification to be based on qualitative/quantitative info on how C&E risks drive credit risk;
- Comprehensive risk mitigation measures for collaterals to be applied where appropriate;
- Adequate monitoring of C&E risks across portfolios;
- Incorporation of C&E risks into loan pricing framework.

results and conclusion

8.2.4 Incorporation of ESG in Operational Risk

The monitoring and management of operational risk is mainly performed through the following four components, for each of which the Bank has incorporated ESG factors:

- Internal Events Management: For the incorporation of ESG risks, the Bank has enhanced its Operational Risk Taxonomy, through the introduction of additional Level 3 and Level 4 risk event types, in order to capture environmental and social issues. Further to the introduction of new risk event types, the Bank has also introduced ESG themes to flag existing and prospective risk events that are classified under other risk event types, in case these are related to environmental and social factors (e.g. physical loss damage). Based on the introduced risk event types and themes, the Bank can swiftly define the perimeter of ESG-related events within its internal loss dataset.
- Risk and Control Self-Assessment (RCSA): RCSA is preformed based on the Operational Risk Taxonomy which incorporates ESG risk types.
- Scenario analysis: The Bank developed scenarios integrating environmental and social factors, in order to identify and measure the impact of extreme events (i.e. with a substantial negative impact on the Bank's profitability and/or reputation) under this perimeter. Scenarios are mapped to risk types and themes described in the Bank's Operational Risk Taxonomy.
- Key Risk Indicators (KRIs): The Bank has introduced and monitors through the KRI Dashboard of the Bank a set of KRIs for environmental and social factors.

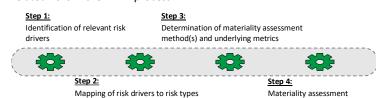
Although historical data do not reflect material losses from ESG-related events, the Bank introduced the abovementioned enhancements to better manage, monitor and mitigate ESG-related risks, effectively acknowledging that there are potentially material ESG factors that could drive operational risk in the future. This is mostly based on a conservative forward-looking view (i.e. future ESG-related losses may be greater compared to historical ones), as well as the fact that such events may have material reputational impact in the future, due to the shifting expectations of customers and the broader society around ESG matters.

8.2.5 C&E-related risk identification and materiality assessment

Overview

The Group follows a four-step approach with regards to the identification and materiality assessment of climate and environmental risks. The ownership of C&E risk identification and materiality assessment (hereinafter referred to also as "RIMA") process lies within the Group Risk Management. Due to the multidisciplinary nature of C&E risks the process involves the contribution of a variety of internal stakeholders from all three lines of defence with expertise on C&E risks. The process is conducted on an annual basis in the context of the ICAAP cycle and involves the following steps, as illustrated in the following figure:

Figure 4: Methodological approach regarding the inclusion of C&E-related risks in the RIMA process



Identification of relevant risk drivers

through transmission channels

The Group recognizes that the systematic identification of the relevant risk drivers with regards to the C&E risks is a matter of vital importance for sound risk management and decision-making. The C&E risk drivers identification process relies on a variety of internal and external sources of information.

From an external perspective the Group relies on scientific literature, supervisory expectations and relevant regulatory guidance, climate scenarios developed by industry leading bodies such as the Network for Greening the Financial System ("NGFS")², data from global multi-regional databases such as the EXIOBASE³, as well as, publications from internationally renowned organizations. These inputs are used to result to a well – informed understanding of relevant C&E risk drivers and assessment of ways (i.e. transmission channels) that could affect the risks the Group is exposed to.

The identification of primary C&E risk drivers takes into account their degree of relevance with a set of factors specific to Group including its business model and overall strategy, risk profile, as well as, sectoral and geographical concentrations of its portfolio. On the basis of the aforementioned sources of information and factors, the Group has identified as primary drivers of C&E risks the following non – exhaustive list.

Table 45: Non – exhaustive list of identified primary C&E risk drivers

Climate relat	Other environmental	
Transition	Physical	
Policy and legal	Heat & drought	Water stress & Waste Management
Technological developments	Floods	
Market sentiment		

The rationale and relevance to Group of the aforementioned identified risk drivers is documented below:

² For further information please refer to NGFS.

³ For further information please refer to Exiobase - Home.

Table 46: Relevance of C&E risk drivers

Identified risk driver	Relevance to NBG
Policy and legal	In accordance with the scientific literature and regulatory guidance the Bank
Technological developments	acknowledges that transition risks are inherently associated with uncertain
Market sentiment	financial impacts that could result from low – carbon transition, including policy changes, new legislations, technological breakthroughs and shifts in market preferences and norms.
Heat & drought	The Bank might be exposed to acute physical risks, namely heat & drought and flood risk,
Floods	on the basis of its primary geographical location of its lending activities (i.e. Greece).
Water stress	The Bank is geographically concentrated to Greece. Taking into consideration historical data, as well as relative projections regarding the ratio of water withdrawals to water supply (water stress level), Greece is among the geographical locations that are expected to be extremely highly influenced (> 80%) by 2040 (based on publicly available official sources of forecasts).
Waste management	In accordance with the scientific literature, the Group acknowledges that waste usage and management constitute a key indicator of environmental risk, and its monitoring could lead to the proper identification of areas where additional waste reduction efforts are needed to protect the environment and ensure sustainable waste management practices. In terms of financial impact, waste usage intensive sectors of the corporate portfolio could be highly influenced by potential material costs that may occurred (e.g., regulatory fines for clients or increased cost from the application of eco-friendly technologies).

In addition to the above, the Bank monitors scientific developments and assesses the relevance of additional candidate risk drivers (e.g., biodiversity loss, deforestation and unconventional site clearance, inter alia) to its risk profile and strategy and might proceed to further enhancements in the above list when the maturity of candidate risk drivers reaches a certain level from a scientific perspective and reliable data will become available in order to allow for proper inclusion in the RIMA process.

Mapping of risk drivers to risk types through transmission channels

Acknowledging the importance of risks stemming from climaterelated and environmental factors, as well as in alignment with the regulatory expectations regarding a robust RIMA process⁴, as a second step, the Bank has developed a bottom-up process with regards to the mapping of transmission channels and identified risk drivers with Level 1 risk types.

Mapping refers to the internal process established by the Bank for the interconnection among C&E-related risk drivers, transmission channels (i.e., the pathways through which the impacts of these risks are transmitted or spread throughout various sectors of the economy and society) and risk types in order to assess both potential financial and non-financial impacts that may arise for the Group such as losses due to credit quality deterioration, loss of market share and customer trust, litigation/liability, reputational risk e.tc.

The assessment is tailored to the Group's business model and risk profile, and it is performed in order to obtain a holistic and well-documented view of the impact of C&E-related risks on existing risk categories, as well as appropriately comprehend the impact of those on the business environment in which it operates and in strategic and business decision making.

The analysis is summarized on the tables below.

⁴ ECB, Good practices for climate-related and environmental risk management – Observations from the 2022 thematic review, November 2022.

Climate Transition risks

 Table 47: Climate Transition risks – Risk drivers, transmission channels & potential impact

Risk Driver	Transmission channels	Affected Level 1 Risk Types	Description and Potential Impact(s)
Policy & Legal		Credit Risk	The risk of deteriorating clients' creditworthiness as a result of late adaption or not adhering to regulations (i.e. declining profitability/losses due to higher carbon price, fines, value of the property), resulting in credit losses for the Bank.
	Policy changes /Non- compliance with the C&E regulatory	Strategic/ Business Risk	The risk that the Bank might be exposed to due to non or late compliance of its clients with climate-related laws and regulations, or inability of the NBG to undertake early action resulting in financial impact i.e. decrease in profitability and core income generating capacity due to loss of market share, customer trust, increase in funding costs e.tc.
	framework & related fines	Operational Risk	Large exposures to client segments that are impacted by policy changes resulting in reputational risk for the Bank. Litigation associated with clients affected by the transition process, resulting in legal risk for the Group.
		Liquidity Risk	Revenue streams of the clients may become more fragile / volatile under transition scenarios, resulting in deterioration of the Bank's liquidity position.
	Increased costs for the	Credit Risk	The risk of deteriorating clients' creditworthiness, either operating in non- green industries (e.g., increased costs or inability to transition their business by applying new technologies), or possessing low energy efficiency properties/collaterals, resulting in credit losses for the Bank.
substitution of existing products & services or low energy efficiency properties	Strategic/ Business Risk	The risk on which the Bank might be exposed from obligors, mainly operating in non-green industries (e.g., increased costs or inability to transition their business by applying new technologies) or possessing low energy efficiency properties/collaterals, resulting in financial impact for the Group through decrease in profitability and core income generating capacity.	
		Credit Risk	The risk that the clients of the Bank experience loss of business and lack of trust and therefore declining revenues and profits due to late or no transition to sustainable products and services, resulting in credit losses for the Bank.
Market Sentiment	Stakeholders (investors, consumers e.tc.) seeking sustainable products and services	Strategic/ Business Risk	The risk that the clients experience loss of business and lack of trust and thus declining revenues and profits due to late or no transition to sustainable products and services, resulting in financial impact for the bank through decrease in profitability and core income generating capacity.
	and services	Market Risk	Market sentiment due to policy changes and technology resulting in market value changes to the trading portfolio of the Bank.
		Liquidity Risk	The risk that the Bank may be exposed to due to late or no transition to sustainable products and services, impacting clients' trust (increased retail/wholesale funding cost and increased deposits outflows).

Climate Physical risks

 Table 48: Climate Physical risks – Risk drivers, transmission channels & potential impact

Risk Driver	Transmission channels	Affected Level 1 Risk Types	Description and Potential Impact(s)				
Acute events	Damage to property and assets in high-risk	Credit Risk	The risk that clients' ability to repay their obligations is diminished or the value of their properties/premises is reduced due to climate events (i.e. loss of business, increased cost of repair), resulting in credit losses for the Bank.				
Acute events	locations	Operational Risk	The risk of damage to the Bank's properties resulting in incurred expenses.				
		Liquidity Risk	Difficulties maintaining funding to support operations due to deposits outflows.				
Chronic events	events Increased costs to address damages or losses caused by climatic incidents		Increased costs for the clients that face structural deterioration due to the geographical location of their business operations (corporate) and value of property (retail), thus affecting their creditworthiness, resulting in credit losses for the Bank.				

Environmental risks

Table 49: Environmental risks – Risk drivers, transmission channels & potential impact

Risk Driver	Transmission channels	Affected Level 1 Risk Types	Description and Potential Impact(s)
	Potential fines for intensive water usage and waste management	Credit Risk	The risk of deteriorating clients' creditworthiness as a result of late adaption or not adhering to regulations (i.e. declining profitability/losses due to lower demand, specific restrictions for products, fines, value of the property being diminished), resulting in credit losses for the Bank.
Policy & Legal		Strategic/ Business Risk	The risk of experiencing adverse impacts as a result of late adaption or not adhering to regulations (i.e. declining profitability/losses due to lower demand, specific restrictions for products, fines, value of the property being diminished), resulting in financial impact for the bank through decrease in profitability and core income generating capacity.
	Reputational / Market perception	Strategic/ Business Risk	The risk of reputational impact, based on a potentially adverse market sentiment of various stakeholders regarding the Bank's position compared to peers, incorporating the growing expectations and sensitivities in the value chain, as a result of a late or no adoption of ESG-related legislation or strategy implementation.

Determination of materiality Assessment methods and underlying metrics

The materiality assessment process established by the Group for C&E related risks ensures that all the aforementioned potential impacts identified through the mapping of C&E related risk drivers and transmission channels, are assessed both quantitatively and qualitatively through the use of relevant metrics. The assessment method and the associated metrics with regards to the inclusion of C&E-related risks in the RIMA process are summarized in the following figures:

Figure 5: C&E risks materiality assessment process – Overview – Credit & Strategic / Business risks

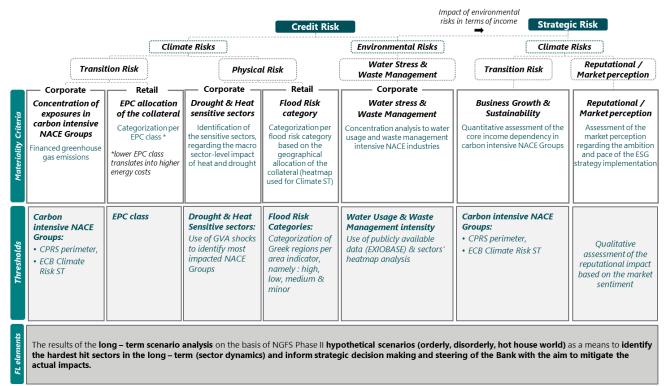
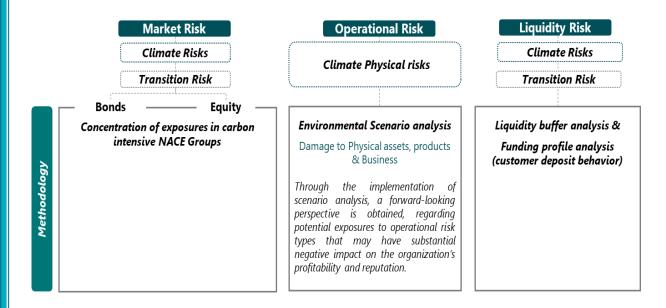


Figure 6: C&E risks materiality assessment process – Overview – Market, Operational & Liquidity risks



Materiality Assessment Results

The outcome of the C&E-related materiality assessment performed, is presented on an aggregated level alongside with the employed criteria / methodology per risk type, in the table below.

Table 50: C&E-related risks - Outcome of RIMA process

Risk Type			Criteria / Methodology	Result
	Climate Risk	Transition (Corporate)	Concentration of exposures in carbon intensive NACE Groups	Material
		Transition (Retail)	EPC allocation of the collateral	Material
Credit Risk		Physical (Corporate)	Drought & Heat sensitive sectors	Immaterial
		Physical (Retail)	Flood Risk category	Material
	Environmental Risk (Corporate)		Water stress & Waste management	Immaterial
	C&E Risk	Reputational / Market perception	Qualitative assessment of the reputational impact	Material
Strategic/ Business Risk	Climate Risk	Transition	Business Growth & Sustainability	Material
	Environmental	Risk (Corporate)	Water stress & Waste Management	Immaterial
Market Risk	Climate Risk	Transition (Bonds & Equities)	Carbon intensive NACE Groups	Immaterial
Operational Risk	C&E Risk	Physical	Environmental Scenario analysis	Immaterial
Liquidity Risk	Climate Risk Transition		Liquidity buffer analysis & Funding profile analysis	Immaterial

C&E Materiality Assessment - Forward – looking perspective

The Bank has incorporated a forward-looking perspective into its materiality assessment of Climate and Environmental risks, focusing mainly on the Corporate portfolio.

Specifically, the forward-looking elements have been incorporated for assessing transition risk on its corporate portfolio, by utilizing the results of the long – term exploratory scenario analysis, on the basis of NGFS Phase II hypothetical scenarios (orderly, disorderly), as a means to identify the hardest hit sectors in the long – term (sector dynamics). The results were extrapolated to the total Corporate portfolio, based on weighted average transition risk adjusted PD per cortor.

The respective quantitative analysis indicated rather limited impacts within a short to medium–term (3-year), while the long–term horizon results are used as a means to assess sector dynamics and inform strategic decision making in order to manage transition risk in the future. The analysis revealed that the hardest hit sectors under both orderly and disorderly scenarios are "Energy", "Construction", "Transportation and storage", as well as "Wholesale and retail trade".

The Bank has, also, leverage the results of the above-mentioned NGFS scenarios, in order to estimate its core income reliance on carbon-intensive sectors up until 2050 per each NGFS hypothetical scenario. The analysis was focused on the evolution and the concentration of the core income of Non-financial corporations' portfolio, as well as of the associated exposures, in the 30-year horizon, based on sectoral growth and market rate assumptions per scenario. The analysis revealed that the Bank's Non-financial

corporations' portfolio income reliance on C&E high risk sectors is material and remains fairly stable, going forward, under both the orderly and disorderly scenarios and before any portfolio diversification effect (being the most notable mitigating action in this respect).

Regarding portfolio diversification-related initiatives, these refer to the short-, medium- and long-term target setting, and comprise an essential objective within the Bank's Transformation Plan for 2023.

The Bank estimates that, in a short to medium term horizon (3 years), the impact from C&E risks will be limited, thus it is not necessary to hold additional capital for such risks. Noteworthy, the abovementioned will be re-assessed on a regular basis, taking into consideration any potential regulatory requirements or guidance that may arise, as well as the best practice methodologies.

It is also noted that the Bank has already implemented mitigating actions, such as:

- Enhancement of the governance and risk management framework (i.e. identification of new risk drivers, methodological approaches for estimating the financial impact etc.) around the area of C&E risks,
- Prioritized and extensive Transformation initiatives, which are closely monitored and containing ambitious targets.

8.2.6 ESG Risk Management - Planned actions

Going forward, the Bank is planning to further enhance the incorporation of ESG factors in its Risk Management Framework, as methodological approaches mature, quantification/analytical capabilities develop and additional climate and environmental data become available.

Moreover, key initiatives relevant to the implementation of the ESG strategy are being included in the Transformation Program (see chapter 3 "NBG's Transformation Program") to ensure high level of focus and execution discipline in the aforementioned critical areas and alignment between business strategy and risk management priorities. Planned actions for 2023 include enhancements in the following areas:

- C&E Credit Risk Capabilities (within lending policies, credit risk classification, loan pricing etc.).
- Scenario Analysis and Stress Testing, emphasizing on the interlink with NZ Strategy and targets.
- Expansion of regular monitoring and reporting, employing standard methodologies for measurement of GHG emissions and other KRIs.

8.3 Quantitative Disclosures on Climate change transition and physical Risks and mitigating actions

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. To that end, NBG has thoroughly studied the disclosure templates and associated instructions and explored synergies with all involved Units to efficiently and effectively source required information from the relevant stakeholders and is well n track in standardising this sourcing of information and integration in its IT infrastructure.

The relevant information can be found in the tables below.

Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity

Summary, comments on content / perimeter

The template includes Group exposures towards non-financial corporates, including loans and advances, debt securities and equity instruments, classified in the accounting portfolios in the banking book, by sector of economic activities using NACE codes based on the principal activity of the counterparty. The template excludes financial assets held for trading or assets held for sale. Exposures to financial corporations, sovereigns, central banks, general and local governments and household exposures to private individuals are also excluded. Furthermore, the Bank is disclosing additional information concerning RES (Renewale Energy Sources) exposures that are included in the Template perimeter giving a forward looking to it's volumes breakdown to sectors that highly contribute to climate change in alignment with its ESG Strategy.

Approach limitations

Data on financed emissions have not been populated in the template. This disclosure is expected to be made from 2024 onwards, in order to enhance the granularity and quality of underlying data originating from the Bank's counterparties. It should be underlined that the Bank has started measuring its financed emissions in the following PCAF asset classes: i. Listed equity and corporate bonds, ii. Business loans and unlisted equity iii. Commercial Real Estate, iv. Project finance, v. Mortgages, vi. Vehicle loans, and vii. Sovereign debt, creating its internal GHG Emissions Inventory for 2020, 2021 and 2022. As previously explained, the main limitation is the lack of data, either from a financial or an emissions' standpoint.

Methodological approach, key assumptions, applicable standards used

In order to identify exposures towards companies excluded from EU Paris-aligned Benchmarks, the Bank based its analysis primarily on the NACE code of the debtor's economic activity (since the large majority of companies that are the Bank's counterparties do not publish information with respect to their revenue mix and/or other activity based metrics) to interpret the conditions for exclusion from the Paris-aligned Benchmarks, in particular points (d) to (g) from the respective Guidance, overriding as appropriate in specific cases (e.g. including big borrowers with known principal activity meeting PAB exclusion conditions or excluding RES-related/flagged borrowers despite their generic NACE-based categorization).

NPE classification is aligned with Stage 3 classification based on the IFRS9 accounting standard and the gross carrying amount of Stage 2 instruments has also been disclosed according to IFRS9 definition.

Exposures are allocated to the relevant maturity bucket depending on the remaining maturity of the corresponding financial instrument. The computation of the average maturity of the exposures has been performed by weighing individual exposure maturities with the gross carrying amount of the exposures.

Evolution, plans for enhanced disclosure, timelines

The Bank aims to disclose its estimated financed emissions for specific sectors of obligors' activity as of end 2022 in its upcoming ESG Report 2022 and works towards setting science-based emission targets for specific sectors in the forthcoming months. Moreover, the Bank is already in the process of increasing its financed emissions obligor perimeter, in alignment with the relevant Pillar 3 definitions and requirements. The target is to measure the financed emissions stemming from the totality of the eligible per PCAF corporate portfolio by the end of 2023, as well as to keep improving the measurement's data quality score by collecting and using more actual reported and activity data from its obligors, where applicable and available.

Table 51: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity

	30.06.2023							
		а	b	d	е	f	g	h
			Gross carrying	amount		Accumulated in negative char credit ri	alue due to	
			Of which exposures towards companies excluded from EU Parisaligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	Of which stage 2 exposures	Of which non- performing exposures	S	of which tage 2 xxposures	Of which non- performing exposures
1	Exposures towards sectors that highly contribute to climate change*	17,700	1,839	1,420	975	(797)	(107)	(576)
2	A - Agriculture, forestry and fishing	317		67	63	(41)	(8)	(30)
3	B - Mining and quarrying	58	0	4	4	(3)	0	(2)
4	B.05 - Mining of coal and lignite	0		0	0	0	0	C
5	B.06 - Extraction of crude petroleum and natural gas	0	0	0	0	0	0	C
6	B.07 - Mining of metal ores	30		0	0	0	0	(
7	B.08 - Other mining and quarrying	28		4	4	(2)	0	(2,
8	B.09 - Mining support service activities	0		0	0	0	0	(
9	C - Manufacturing	4,321	701	410	354	(308)	(35)	(244)
10	C.10 - Manufacture of food products	1,118		150	72	(63)	(14)	(45)
11	C.11 - Manufacture of beverages	124		14	17	(13)	(2)	(9)
12	C.12 - Manufacture of tobacco products	59		25	1	(2)	0	C
13	C.13 - Manufacture of textiles	110		13	31	(25)	(2)	(22)
14	C.14 - Manufacture of wearing apparel	86		23	37	(26)	(4)	(21)
15	C.15 - Manufacture of leather and related products C.16 - Manufacture of wood and of products of wood	13		1	3	(3)	0	(3)
16	and cork, except furniture; manufacture of articles of straw and plaiting materials	17		4	6	(5)	0	(5,
17	C.17 - Manufacture of pulp, paper and paperboard	129		10	6	(4)	(1)	(3)
18	C.18 - Printing and service activities related to	51		7	9	(6)	(1)	(4,
19	printing C.19 - Manufacture of coke oven products	701	701	0	0	(6)	0	C
20	C.20 - Production of chemicals	187	701	9	13	(8)	0	(7,
21	C.21 - Manufacture of pharmaceutical preparations	178		9	8	(8)	0	(7)
22	C.22 - Manufacture of rubber products	154		25	11	(10)	(1)	(8)
	C.23 - Manufacture of other non-metallic mineral							
23	products	202		55	7	(7)	(1)	(4
24	C.24 - Manufacture of basic metals	574		7	81	(80)	(2)	(72
25	C.25 - Manufacture of fabricated metal products, except machinery and equipment	157		21	26	(20)	(2)	(17
26	C.26 - Manufacture of computer, electronic and optical products	36		1	0	(1)	0	(
27	C.27 - Manufacture of electrical equipment	275		6	3	(5)	0	(2
28	C.28 - Manufacture of machinery and equipment n.e.c.	41		9	13	(10)	0	(10
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	12		0	0	0	0	0
30	C.30 - Manufacture of other transport equipment	14		0	0	0	0	(2
31	C.31 - Manufacture of furniture	32		13	4	(4)	(1)	(3
32	C.32 - Other manufacturing	29		3	4	(3)	0	(3)
33	C.33 - Repair and installation of machinery and equipment	22		3	1	(1)	0	C

^{*} In accordance with the Commission delegated regulation EU) 2020/1818 supplementing regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks -Climate Benchmark Standards Regulation - Recital 6: Sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1892/2006

Table 51: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity 30.06.2023 (continued)

		а	b	d	е	f	g	h	
			Gross carrying amount				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
			Of which exposures towards companies excluded from EU Parisaligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	Of which stage 2 exposures	Of which non- performing exposures		Of which stage 2 exposures	Of which non- performing exposures	
34	D - Electricity, gas, steam and air conditioning supply	2,209	694	68	8	(26)	(6)	(4)	
35	D35.1 - Electric power generation, transmission and distribution	2,031	518	67	8	(25)	(6)	(4)	
36	D35.11 - Production of electricity	1,475	313	53	7	(20)	(4)	(3)	
37	D35.2 - Manufacture of gas; distribution of gaseous fuels through mains	176	176	0	0	(2)	0	0	
38	D35.3 - Steam and air conditioning supply	3		1	0	0	0	0	
39	E - Water supply; sewerage, waste management and remediation activities	48		3	1	(1)	0	(1)	
40	F - Construction	462		80	35	(36)	(13)	(19)	
41	F.41 - Construction of buildings	244		59	23	(25)	(11)	(12)	
42	F.42 - Civil engineering	162		7	4	(3)	0	(1)	
43	F.43 - Specialised construction activities	56		14	9	(8)	(1)	(6)	
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	3,205	180	421	286	(216)	(28)	(161)	
45	H - Transportation and storage	3,947	264	78	28	(40)	(5)	(24)	
46	H.49 - Land transport and transport via pipelines	337	264	24	9	(13)	(3)	(8)	
47	H.50 - Water transport	2,437		41	12	(8)	0	(11)	
48	H.51 - Air transport	3		2	0	(1)	(1)	0	
49	H.52 - Warehousing and support activities for transportation	1,165		11	6	(18)	(1)	(6)	
50	H.53 - Postal and courier activities	5		0	1	0	0	0	
51	I - Accommodation and food service activities	1,763		251	175	(104)	(11)	(79)	
52	L - Real estate activities	1,370		39	21	(22)	(2)	(10)	
53	Exposures towards sectors other than those that highly contribute to climate change*	1,733	0	168	105	(103)	(27)	(67)	
54	K - Financial and insurance activities	41		0	0	0	0	0	
55	Exposures to other sectors (NACE codes J, M - U)	1,692		167	105	(103)	(27)	(67)	
56	TOTAL	19,433	1,839	1,588	1,080	(900)	(134)	(643)	

^{*} In accordance with the Commission delegated regulation EU) 2020/1818 supplementing regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks -Climate Benchmark Standards Regulation - Recital 6: Sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006

Table 51: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity 31.12.2022

			31.12.2022					
		а	b	d	е	f	g	h
			Gross carrying	amount		_	impairment, a inges in fair v risk and provi	alue due to
			Of which exposures towards companies excluded from EU Parisaligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	Of which stage 2 exposures	Of which non- performing exposures	:	Of which stage 2 exposures	Of which non- performing exposures
1	Exposures towards sectors that highly contribute to climate change*	18,103	1,890	1,609	1,040	(894)	(145)	(631
2	A - Agriculture, forestry and fishing	385		70	45	(45)	(9)	(31)
3	B - Mining and quarrying	24		5	4	(3)		(2
4	B.05 - Mining of coal and lignite	0						
5	B.06 - Extraction of crude petroleum and natural gas	0						
6	B.07 - Mining of metal ores	7		_		(2)		
7	B.08 - Other mining and quarrying	17		5	4	(2)		(2
<i>8</i>	B.09 - Mining support service activities C - Manufacturing	<i>0</i> 4,495	851	400	373	(220)	(24)	(262
9 10	C.10 - Manufacturing C.10 - Manufacture of food products	4,495 1,212	851	490 194	373 84	(330) (81)	(34) (11)	(56
11	C.11 - Manufacture of beverages	115		19	16	(13)	(5)	(9
12	C.12 - Manufacture of tobacco products	73		13	7	(7)	(3)	(6
13	C.13 - Manufacture of textiles	109		13	31	(23)	(1)	(22
14	C.14 - Manufacture of wearing apparel	86		28	34	(22)	(5)	(18
15	C.15 - Manufacture of leather and related products	16		1	6	(5)		(4
	C.16 - Manufacture of wood and of products of wood							
16	and cork, except furniture; manufacture of articles of straw and plaiting materials	20		4	7	(6)		(5
17	C.17 - Manufacture of pulp, paper and paperboard	130		35	5	(4)	(1)	(3
18	C.18 - Printing and service activities related to	53		10	8	(5)		(4
	printing		0.74		_			, .
19	C.19 - Manufacture of coke oven products	851	851	14 9	12	(7)		//
20 21	C.20 - Production of chemicals C.21 - Manufacture of pharmaceutical preparations	192 183		2	13 9	(7) (8)		(5 (7
22	C.22 - Manufacture of pharmaceutical preparations C.22 - Manufacture of rubber products	146		24	10	(9)	(1)	(8
23	C.23 - Manufacture of other non-metallic mineral products	201		44	10	(7)	(1)	(5
24	C.24 - Manufacture of basic metals	533		7	83	(80)	(3)	(73
25	C.25 - Manufacture of fabricated metal products,	161		27	24			
	except machinery and equipment C.26 - Manufacture of computer, electronic and				24	(20)	(3)	(17
26 27	optical products C.27 - Manufacture of electrical equipment	32 234		12 9	4	(1) (4)	(1) (1)	(2
	C.28 - Manufacture of machinery and equipment						(1)	
28	n.e.c.	43		10	13	(10)		(10
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	10		1				
30	C.30 - Manufacture of other transport equipment	12		0				
31	C.31 - Manufacture of furniture	34		12	6	(5)	(1)	(4
32	C.32 - Other manufacturing	31		13	5	(3)		(4
33	C.33 - Repair and installation of machinery and	20		3		(1)		
55	equipment					(1)		

^{*} In accordance with the Commission delegated regulation EU) 2020/1818 supplementing regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks -Climate Benchmark Standards Regulation - Recital 6: Sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No

Table 51: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity 31.12.2022 (continued)

		a	b	d	e	f	g	h
			Gross carrying	amount		negative c	d impairment, hanges in fair v it risk and prov	alue due to
			Of which exposures towards companies excluded from EU Parisaligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	Of which stage 2 exposures	Of which non- performing exposures		Of which stage 2 exposures	Of which non- performing exposures
34	D - Electricity, gas, steam and air conditioning supply	2,096	591	59	8	(28)	(5)	(5)
35	D35.1 - Electric power generation, transmission and distribution	1,989	488	50	7	(27)	(4)	(5)
36	D35.11 - Production of electricity	1,425	228	39	7	(22)	(4)	(5)
37	D35.2 - Manufacture of gas; distribution of gaseous fuels through mains	104	104	9	1	(1)	(1)	
38	D35.3 - Steam and air conditioning supply	3						
39	E - Water supply; sewerage, waste management and remediation activities	51		2	1	(1)		(1)
40	F - Construction	450		84	30	(30)	(9)	(20)
41	F.41 - Construction of buildings	237		49	19	(19)	(5)	(14)
42 43	F.42 - Civil engineering F.43 - Specialised construction activities	155 58		13 22	4 8	(6) (8)	(1) (2)	(1) (6)
44	G - Wholesale and retail trade; repair of motor	3,510	188	483	304	(234)	(36)	(175)
	vehicles and motorcycles					` ′		
45	H - Transportation and storage H.49 - Land transport and transport via pipelines	4,048 333	259 <i>259</i>	109 <i>26</i>	49 8	(43)	(7) <i>(</i> 3 <i>)</i>	(19)
46 47	H.50 - Water transport	2,567	239	52	35	(16)	(1)	(4) (11)
48	H.51 - Air transport	21		2	33	(2)	(1)	(11)
49	H.52 - Warehousing and support activities for transportation	1,122		28	6	(16)	(2)	(3)
50	H.53 - Postal and courier activities	5						
51	I - Accommodation and food service activities	1,729		266	165	(133)	(41)	(78)
52	L - Real estate activities	1,314		43	60	(48)	(3)	(39)
53	Exposures towards sectors other than those that highly contribute to climate change*	1,494		173	121	(96)	(12)	(74)
54	K - Financial and insurance activities	59						
55	Exposures to other sectors (NACE codes J, M - U)	1,435		173	120	(96)	(12)	(74)
56	TOTAL	19,597	1,890	1,783	1,161	(990)	(157)	(706)

^{*} In accordance with the Commission delegated regulation EU) 2020/1818 supplementing regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks -Climate Benchmark Standards Regulation - Recital 6: Sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006

Considering that within sectors that highly contribute to climate change there are RES related exposures, the above balances are recalculated excluding those exposures leading to the following gross carrying amounts and respective percentages.

Table 52: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector excluding RES 30.06.2023

Category	Gross Carrying Amount	Renewables Gross Carrying Amount	Gross Carrying Amount Without Renewables
High Contribution	17,700	1,224	16,475
Low Contribution	1,733	6	1,727
Total	19,433	1,231	18,202

Table 53: : 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector excluding RES (%) 30.06.2023

	Percentage
High Contribution	91,08%
Low Contribution	8.92%
High Contribution Excluding Renewables	84.78%
Low Contribution Including Renewables from High Contribution	15.22%

Tablec 51: **1.CC** - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity 30.06.2023 (continued)

	30.06.2023 (continued)	- 1	m	n	0	р
•			Res	idual Mat	urity	_
			> 5	> 10		Average
		<= 5	year	year	> 20	weighted
		years	<= 10	<= 20	years	maturity
			years	years		,
1	Exposures towards sectors that highly contribute to climate change*	10,275	4,434	2,679	312	6
2	A - Agriculture, forestry and fishing	174	130	12	1	4
3	B - Mining and quarrying	18	39	1	0	6
<i>4</i> 5	B.05 - Mining of coal and lignite B.06 - Extraction of crude petroleum and natural gas	0 0	0 0	0 0	0 0	0 9
6	B.07 - Mining of metal ores	3	27	0	0	8
7	B.08 - Other mining and quarrying	15	11	1	0	4
8	B.09 - Mining support service activities	0	0	0	0	0
9	C - Manufacturing	3,152	1,058	98	12	3
10	C.10 - Manufacture of food products	880	210	25	3	3
11	C.11 - Manufacture of beverages	90	33	1	0	3
12	C.12 - Manufacture of tobacco products	58	1	0	0	1
13	C.13 - Manufacture of textiles	77 77	4 7	29 2	0 0	5 2
14 15	C.14 - Manufacture of wearing apparel C.15 - Manufacture of leather and related products	12	1	0	0	2
	C.16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles					
16	of straw and plaiting materials	14	2	1	0	3
17	C.17 - Manufacture of pulp, paper and paperboard	115	12	2	0	2
18	C.18 - Printing and service activities related to printing	40	10	1	0	2
19	C.19 - Manufacture of coke oven products	600	101	0	0	3
20	C.20 - Production of chemicals	144	42	0	0	3
21	C.21 - Manufacture of pharmaceutical preparations	114	54	10	0	4
22	C.22 - Manufacture of rubber products	112	40 51	1	1	3
23 24	C.23 - Manufacture of other non-metallic mineral products C.24 - Manufacture of basic metals	145 324	51 250	5 0	1 0	3 3
2 5	C.25 - Manufacture of fabricated metal products, except machinery and equipment	117	230	10	6	4
26	C.26 - Manufacture of computer, electronic and optical products	10	25	0	1	5
27	C.27 - Manufacture of electrical equipment	100	169	6	0	5
28	C.28 - Manufacture of machinery and equipment n.e.c.	38	2	1	0	2
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	11	1	0	0	1
30	C.30 - Manufacture of other transport equipment	14	0	0	0	1
31	C.31 - Manufacture of furniture	21	9	2	0	4
32	C.32 - Other manufacturing	22	6	1	0	3
33	C.33 - Repair and installation of machinery and equipment	17	620	2 2 2	0	3
34 35	D - Electricity, gas, steam and air conditioning supply	909 <i>850</i>	638 <i>601</i>	662 580	0	8 7
36	D35.1 - Electric power generation, transmission and distribution D35.11 - Production of electricity	400	554	521	0 0	9
37	D35.11 - Floudiction of gaseous fuels through mains	57	36	82	0	10
38	D35.3 - Steam and air conditioning supply	2	1	0	0	4
39	E - Water supply; sewerage, waste management and remediation activities	25	16	7	0	6
40	F - Construction	304	129	28	1	4
41	F.41 - Construction of buildings	165	68	11	0	4
42	F.42 - Civil engineering	106	43	14	0	4
43	F.43 - Specialised construction activities	33	18	3	1	4
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	2,648	432	109	17	3
45 46	H - Transportation and storage	2,250	707	723	267	7
46 47	H.49 - Land transport and transport via pipelines	58 2.047	231	47	1	8
17 18	H.50 - Water transport H.51 - Air transport	2,047 3	389 0	0 0	1 0	3
+0 49	H.52 - Warehousing and support activities for transportation	3 137	87	676	265	14
50	H.53 - Postal and courier activities	5	0	0	0	1
51	I - Accommodation and food service activities	450	851	455	7	7
52	L - Real estate activities	345	434	584	7	9
53	Exposures towards sectors other than those that highly contribute to climate change*	1,431	190	54	58	4
54	K - Financial and insurance activities	32	9	0	0	6
55	Exposures to other sectors (NACE codes J, M - U)	1,398	181	54	58	4
		-,				
56	TOTAL	11,706	4,624	2,733	370	5

Tablec 51: 1.CC - Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity 31.12.2022 (continued)

	311212322 (continued)	- 1	m	n	0	р
			Res	idual Mat	urity	
			> 5	> 10		Avorago
		<= 5	year	year	> 20	Average weighted
		years	<= 10	<= 20	years	maturity
			years	years		matarrey
1	Exposures towards sectors that highly contribute to climate change*	10,905	4,393	2,488	317	6
2	A - Agriculture, forestry and fishing	250	112	23	1	4
3	B - Mining and quarrying	14	9	1	0	4
4 5	B.05 - Mining of coal and lignite B.06 - Extraction of crude petroleum and natural gas	0 0	0 0	0 0	0 0	0
6	B.07 - Mining of metal ores	2	5	0	0	6
7	B.08 - Other mining and quarrying	12	4	1	0	3
8	B.09 - Mining support service activities	0	0	0	0	0
9	C - Manufacturing	3,355	1,029	96	14	3
10	C.10 - Manufacture of food products	1,020	172	17	2	3
11	C.11 - Manufacture of beverages	78	36	1	1	4
12	C.12 - Manufacture of tobacco products	72	0	0	0	1
13	C.13 - Manufacture of textiles	78	4	27	0	6
14	C.14 - Manufacture of wearing apparel	74	6	5	0	2
15	C.15 - Manufacture of leather and related products	15	1	0	0	1
16	C.16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16	2	1	0	3
17	C.17 - Manufacture of pulp, paper and paperboard	98	31	1	0	2
18	C.18 - Printing and service activities related to printing	41	11	1	0	3
19	C.19 - Manufacture of coke oven products	636	215	0	0	3
20	C.20 - Production of chemicals	150	42	0	0	3
21	C.21 - Manufacture of pharmaceutical preparations	123	50	10	0	4
22	C.22 - Manufacture of rubber products	115	26	5	1	3
23	C.23 - Manufacture of other non-metallic mineral products	152	43	6	0	3
24	C.24 - Manufacture of basic metals	304	229	0	0	4
25	C.25 - Manufacture of fabricated metal products, except machinery and equipment	123	19	12	7	3
26	C.26 - Manufacture of computer, electronic and optical products	11 119	19 109	0 5	0 0	5 4
27 28	C.27 - Manufacture of electrical equipment C.28 - Manufacture of machinery and equipment n.e.c.	40	2	1	0	2
29	C.29 - Manufacture of motor vehicles, trailers and semi-trailers	10	0	0	0	2
30	C.30 - Manufacture of other transport equipment	12	0	0	0	2
31	C.31 - Manufacture of furniture	22	9	2	1	4
32	C.32 - Other manufacturing	28	2	1	0	2
33	C.33 - Repair and installation of machinery and equipment	18	1	1	0	3
34	D - Electricity, gas, steam and air conditioning supply	998	550	544	4	7
35	D35.1 - Electric power generation, transmission and distribution	933	512	541	4	7
36	D35.11 - Production of electricity	456	476	492	0	8
37	D35.2 - Manufacture of gas; distribution of gaseous fuels through mains	63	37	3	0	6
38	D35.3 - Steam and air conditioning supply E - Water supply; sewerage, waste management and remediation activities	2 32	1 17	<u>0</u>	<i>0</i>	<i>3</i>
39 40	F - Construction	320	112	16	2	4
41	F.41 - Construction of buildings	156	69	12	1	4
42	F.42 - Civil engineering	128	26	1	0	3
43	F.43 - Specialised construction activities	36	18	4	1	5
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	2,885	492	116	17	3
45	H - Transportation and storage	2,106	904	771	266	8
46	H.49 - Land transport and transport via pipelines	59	226	47	1	9
47	H.50 - Water transport	1,935	632	0	0	4
48	H.51 - Air transport	20	0	0	0	3
49	H.52 - Warehousing and support activities for transportation	87	47	724	265	15
50	H.53 - Postal and courier activities	5	0	0	0	1
51	I - Accommodation and food service activities	538	756	430	5	7
52	L - Real estate activities	407	411	488	8	9
53	Exposures towards sectors other than those that highly contribute to climate change*	1,329	113	36	17	4
54	K - Financial and insurance activities	1 205	28 85	0	7	8
55	Exposures to other sectors (NACE codes J, M - U)	1,305	85	36	9	4
56	TOTAL	12,234	4,506	2,524	334	5
		,,	.,500	_,>= .	30.	

^{*} In accordance with the Commission delegated regulation EU) 2020/1818 supplementing regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks -Climate Benchmark Standards Regulation - Recital 6: Sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006

Banking book- Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the collateral 30.06.2023

Summary, comments on content / perimeter

This template shows the gross carrying amount of loans collateralised with commercial and residential immovable property and of repossessed real estate collaterals, including information on the level of energy efficiency of the collaterals measured in terms of kWh/m² energy consumption and, in terms of the label of the energy class label of the Energy Perormance Certificate (EPC) of the collateral as defined in the EU Energy Performance of Buildings Directive. Only collaterals eligible to receive such an EPC label have been included. Other collateral types for which such information is not applicable (e.g. plot of land) have been excluded.

Gross carrying amount of exposures, which has been calculated on the basis of the value covered by RRE and CRE collaterals, while other collaterals and uncollateralized parts of exposure have been excluded, is disclosed by energy efficiency buckets based on the specific energy consumption of the collateral in kWh/m², as indicated in the EPC of the collateral or as estimated in the absence of the EPC. Gross carrying amount is also grouped by the EPC label of the collateral for those collaterals where the EPC is available to the Bank. Column 'Without EPC label of collateral' shows exposures for which the Bank does not have the EPC information of the collateral.

Approach limitations

Energy Performance Certificates are mandatory for all property transactions performed in the EU, according to the requirements set out in the Energy Performance of Buildings Directive (2010/31/EU) and the Energy Efficiency Directive (2012/27/EU). The number of actual EPCs available to the Bank is limited due to the lack of access to a centralized registry/repository at the country level and to the fact that EPCs were not required for older transactions, prior to the enforcement of relevant EU Directives.

Based on the above, the model limitations or considerations for model improvements have been identified as follows: i) The model was developed on externally provided data ii) Common data fields between the Bank's dataset and the data provided by the external provider were scarce. Hence a multitude of potential model drivers and segmentation variables had to be eliminated hence, greater systemic availability of internal data (on attributes/features of own collaterals), as well as greater variety of available collateral attributes could significantly ameliorate model performance iii) the energy efficiency estimation did not derive from model development but rather was based on publicly available information from the Ministry of Environment and Energy.

Methodological approach, key assumptions, applicable standards used

Regarding the EPC label estimation, a selection process was performed to identify the candidate segmentation variables (attributes of our collaterals) and drivers of the model. The analysis indicated 2 variables: a) the logarithm of the collateral value divided by the collateral square meters, and b) the year of construction as the models' drivers. Optimization for classification accuracy was conducted by testing the feature 'Geographical location' as a potential segmentation variable in the model development. The key outcome was the location of each collateral grouped in seven regional clusters (Northern-East suburbs, Central-West suburbs, Central-South suburbs, Center of Athens, Rest of Attiki, prefecture of Thessaloniki, Rest of Greece). Data imputation was also

performed to remediate the missing values and outliers and enable the allocation of EPC class to the affected entries (unique collaterals). A property type mapping was applied to categorize buildings with commercial use as residential where appropriate and assess their eligibility to receive an EPC label.

The methodological approach that was followed, was based on externally provided data and required the fit of a K-Nearest Neighbor (KNN) model having as features the available information in the bank's internal database for relevant real estate properties. A separate model was developed for each of seven regional clusters, following a similar development methodology. Additional features from the ones used in the final model, contained within the dataset of the external provider, which however were not available in the bank's internal database. Following the development of the model a set of post-model business rules were applied to the model outcome related to the construction year and predicted EPC class. The rules applied were in line with business intuition driven by the legislative requirements regarding construction permits.

The developed model yielded an accuracy of plus or minus 1 EPC Energy Class label of 75.7% in the training sample, 74.2% for the test sample, which is considered as an acceptable level of model performance. The performance of the model was in line with the expectations set by YPEKA's distribution of EPC classes per year of construction, considering for the differences in representation of the Bank's sample distribution.

Regarding the energy efficiency estimation (in kWh/m²) the Bank enhanced its estimation model considering more factors as described below. More specifically, the energy efficiency property type mapping was aligned with the EPC estimation property type mapping for consistency. These properties according to their postcode, were mapped to Climate Zones (A, B, C, D) as presented within Art. 6 – Climate Zones | Ministry of Environment and Energy (opengov.gr), and were assigned an Energy Efficiency in kWh/m², based on a statistical analysis of:

- the average energy intensity factors per building type in the 4 climate zones from Ministry of Environment and Energy's EPCs Statistical Analysis report 2021;
- the number of EPCs per building type, municipality and energy class from Ministry of Environment and Energy's EPCs database;
- the boundaries of the energy intensities among the different energy classes (A+, A, B+, B, C, D, E, F, G) in relation to the energy intensity of a reference similar building, as described in the Technical Instructions of the Technical Chamber of Greece regarding Energy Performance Certificate calculation methodology.

The above methodology caused a shift of volumes to lower consumption buckets, especially in RRE portfolio, compared to the respective results of December 2022.

Evolution, plans for enhanced disclosure, timelines

The Bank is well on track in designing and implementing policy changes to ensure EPC information is collected from its clients, aiming to increase the coverage of its real-estate collaterals with reported certificates, including:

- The redesign of Collateral Valuations forms with new, ESG relevant fields, and
- the augmentation of NBG collateral valuation reports with a brand new, dedicated fact sheet regarding environmental and social data, as well as relative risk factors for buildings and sites, incorporated in the Bank's proprietary valuation software.

The completion of the IT implementation and deployment is scheduled within 2023.

Moreover, the Bank has launched a research & development effort to introduce GIS technologies to its processes and location-based analytics to its tools, to meet the requirements on ESG criteria and the growing demand for big data processing in the near term so as to facilitate and provide in depth assessments and information on various risks, concerning the Bank's collaterals.

Table 54: 2.CC - Banking book- Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the collateral 30.06.2023

		а	b	С	d	е	f	g	h	i	j	k	-1	m	n	0	р
							Total g	ross cai	rying	amour	mount amount						
			Lev	Level of energy efficiency (EP score in kWh/m² of collateral)							nergy (l of	Without EPC label of collateral				
			0; <=100	>100; <=200	>200; <=300	>300; <=400	>400; <=500	>500	Α	В	С	D	Е	F	G		Of which level of energy efficiency (EP score in kWh/m² of collateral) estimated
1	Total EU area	8,846	1,634	2,640	2,404	774	401	697	1	5	74	214	82	44	41	8,385	96%
2	Of which Loans collateralised by commercial immovable property	1,770	42	112	519	181	250	589	0	0	41	155	47	16	0	1,511	95%
3	Of which Loans collateralised by residential immovable property	6,655	1,589	2,483	1,831	546	128	78	0	0	0	0	0	0	0	6,655	100%
4	Of which Collateral obtained by taking possession: residential and commercial immovable properties	421	3	44	54	44	24	33	1	5	33	59	35	28	41	219	0%
5	Of which Level of energy efficiency (EP score in kWh/m² of collateral) estimated	8,268	1,634	2,580	2,191	764	401	697								8,090	100%

^{*} According to EBA guidelines, EPC labels are reported only for actual data available to the Bank while energy consumption is presented for both actual and estimated values. Ifestimated EPC labels are included also, more than half of the total volume would fall within the first three EPC classes (A, B, C).

Table 54: 2.**CC** - Banking book- Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the collateral 31.12.2022

_		a	D	<u> </u>	a	e	т	g	n	'	J	К		m	n	0	Р
		_		_			Total g	ross cai	rying	amour	nt amo	unt					
			Lev	el of ene kWl	ergy effic n/m² of	in	Level of energy efficiency (EPC label of collateral)							Without EPC label of collateral			
			0; <=100	>100; <=200	>200; <=300	>300; <=400	>400; <=500	>500	А	В	С	D	E	F	G		Of which level of energy efficiency (EP score in kWh/m² of collateral) estimated
1	Total EU area	8,789	17	69	5,605	1,706	859	313	1	22	84	220	64	48	44	8,306	97.4%
2	Of which Loans collateralised by commercial immovable property	1,670	17	50	1,277	125	105	15	0	17	50	160	27	17	0	1,400	94.2%
3	Of which Loans collateralised by residential immovable property	6,768	0	0	4,223	1,536	720	290	0	0	0	0	0	0	0	6,768	100%
4	Of which Collateral obtained by taking possession: residential and commercial immovable properties	350	0	19	104	46	34	8	1	5	34	61	37	30	44	139	0%
5	Of which Level of energy efficiency (EP score in kWh/m² of collateral) estimated	8,272	0	0	5,404	1,696	859	313								8,086	100%

Banking book- Climate change transition risk: Climate change transition risk: Exposures to top 20 carbon-intensive firms

The Bank does not have any exposures towards counterparties that are among the top-20 most carbon intensive corporates worldwide.

Table 55: 4.CC - Banking book- Climate change transition risk: Climate change transition risk: Exposures to top 20 carbon-intensive firms 30.06.2023

	a	b	С	d	е
	Gross carrying amount (aggregate)	Gross carrying amount towards the counterparties compared to total gross carrying amount (aggregate)*	Of which environmentally sustainable (CCM)	Weighted average maturity	Number of top 20 polluting firms included
1	-	-	-	-	-

^{*}For counterparties among the top 20 carbon emitting companies in the world as per Climate Accountability Institute (https://www.thecorporategovernanceinstitute.com/insights/news-analysis/the-20-most-polluting-companies-in-the-world-esg/)

Table 55: 4.CC - Banking book- Climate change transition risk: Climate change transition risk: Exposures to top 20 carbon-intensive firms

	a	b	d	е	
	Gross carrying amount (aggregate)	Gross carrying amount towards the counterparties compared to total gross carrying amount (aggregate)*	Of which environmentally sustainable (CCM)	Weighted average maturity	Number of top 20 polluting firms included
1	-	-	-	-	-

^{*}For counterparties among the top 20 carbon emitting companies in the world as per Climate Accountability Institute (https://www.thecorporategovernanceinstitute.com/insights/news-analysis/the-20-most-polluting-companies-in-the-world-esg/)

Banking book- Climate change physical risk: Exposures subject to physical risk

Summary, comments on content / perimeter

The template presents information on exposures in the banking book (including loans and advances, debt securities and equity instruments not held-for-trading and not held-for-sale), towards non-financial corporates, broken down by economic activity (NACE code), for the sectors that are sensitive to acute and/or chronic climate change events. It also provides information on loans collateralized with immovable property and on repossessed real estate collaterals, exposed to chronic and acute climate-related hazards. Exposures (or the portion thereof) collateralized by other collateral types have been excluded.

All exposures are included in the first column (Gross carrying amount) whereas exposures sensitive to impact from climate change physical events are shown in following columns according to relevant breakdowns presented considering their remaining maturities, climate risk sensitivity and credit quality.

For rows 'Loans Collateralized by Residential Real Estate / Commercial Real Estate' the gross carrying amount has been calculated on the basis of the value covered by RRE and CRE collaterals, while other collaterals and uncollateralized parts of exposure have been excluded.

Approach limitations

The materiality assessment for physical risk has been carried out by the Bank for exposures in Greece, covering 84% of total loan Group exposures.

Methodological approach, key assumptions, applicable standards used

Apart from the materiality assessment of transition risk, the Bank is currently performing the materiality assessment for physical risks in the loan portfolio. The Bank has laid down a methodology based on sensitivity and exposure analysis (when separately assessed) to derive vulnerability to physical risk factors. The vulnerability assessment aims to identify potential significant hazards and related risk and forms the basis for the decision to continue the risk assessment, while it is aligned with the Invest EU methodology ("Technical guidance on the climate proofing of infrastructure in the period 2021-2027") and with the "ECB: Good practices for climate related and environmental risk management: Observations from the 2022 thematic review"). The analysis is applied to the corporate portfolio per NACE sector (22 NACE codes) at a country level (Greece), while for exposures covered by real estate (RE) properties

- collateral the analysis is applied at a regional level for each of the 4 climatic zones in Greece.

The analysis is broken down into three steps, comprising of a sensitivity analysis, an assessment of the exposure, and then a combination of the two for the vulnerability assessment. Therefore, it assigns a 3-level sensitivity score from low to high to each sector taking into consideration the sensitivity of the specific economic activities (e.g. power generation) to physical risks (e.g. drought). The aim of the sensitivity analysis (3-level score) is to identify which climate risks are relevant to the specific type of asset, irrespective of its location. Sources used to assess sensitivity analysis include EU, national reports, and scientific literature publicly available. The aim of the exposure analysis (3-level score) is to identify which climate physical risks (eight acute and eight chronic) are relevant to the location irrespective of the asset's sector or type, and it is useful to understand how the exposure of different areas will change as a result of changing climate conditions.

For the assessment of exposure to future conditions, climate projections for the hot-house scenario of IPCC AR5 RCP 8.5 with a horizon of 2050 are taken into consideration. Climate projections have been used, from 7 selected state-of-the-art pairs of global (GCMs) / regional climate models (RCMs) developed under the EURO-CORDEX program with an horizontal spatial resolution of about 11x11 km.

Analysis indicated that NACE sector A scores a high level of vulnerability both at chronic and acute risks, while both sectors B and D, score a high level of vulnerability at acute risks. Additionally, sector E, scores a high level at acute and both at chronic and acute risks.

Further analysis shows that the climate vulnerability score for the sub-sector D35.11 Production of electricity is Medium both for and chronic, acute and chronic acute risks. In parallel, the Bank has developed a methodological approach to estimate the vulnerability of real estate (RE) properties (linked to mortgages/collaterals) to all physical climate risks and to selected risks which are more relevant to buildings type of asset (i. sea level rise, soil & coastal erosion; ii. soil & coastal erosion; iii. wildfire; iv. cyclone/ hurricane/ typhoon/ storm/ tornado; v. floods), taking into consideration their max value per climate zone (four climatic zones). Analysis has been carried out at a regional level, in order to capture at a higher resolution, the impact of climate change. Analysis indicated that the climate vulnerability of RE properties located at Climate Zone D has been estimated as Low, at Climate Zones B and C estimated as Medium, while at Climate Zone A as High for Acute

From those three classifications, exposures to geographical areas with High climate vulnerability, are included in the set of 'exposures sensitive to impact from climate change physical events' under the respective categories of 'chronic', 'acute', 'chronic and acute'.

Evolution, plans for enhanced disclosure, timelines

The Bank will continue to assess the vulnerability of its exposures to physical risk factors and will enhance its methodology to increase the granularity and perimeter of relevant inputs along with the level of accuracy of corresponding results.

Table 56 : 5.CC - Ban	king book	- Clim	ate c	hang	e phy	sical ris	k: Exposu	res subje	ct to phy	sical risk	30.06.20	023
	b	С	d	е	f	g	h	i	j	k	1	m
							Gro	ss carryin	g amount			

	Gross carrying amount													
				of	whic	ch exposi	ıres sensi	tive to im	pact from	climate ch	ange phys	ical e	vents	
		Brea	kdowi	n by ma	aturity	/ bucket	of which	of which	of which	Of which	Of which	Accı	umulated ir	npairment,
								exposures		Stage 2	non-		cumulated	0
								sensitive		exposures	performing		0	alue due to
							from	to impact from	to impact		exposures	cre	dit risk and	provisions
			> 5	> 10			chronic	acute	chronic					Of which
		<= 5	year	year	> 20	Average	climate	climate	and acute				of which	non-
		years	<= 10	<= 20	years	weighted maturity	change	change	climate				Stage 2 exposures	performing
		,		years		maturity	events	events*	change				схрозитсэ	exposures
	24.7								events				/- \	(==)
1 A - Agriculture, forestry and fishing2 B - Mining and quarrying	317 58	154 12	119 30	12 1	1	4 7		43	286	62 3	63	(40) (2)	(7)	(30) (1)
3 C - Manufacturing	4,321	12	30	-		,		43		3	2	(2)		(1)
D - Electricity, gas, steam and air conditioning	2,209	431	52	131		5		615		11	0	(7)	(1)	
4 supply	2,209	451	52	131		3		013		11	U	(7)	(1)	
E - Water supply; sewerage, waste management	48	18	14	7	0	6			39	2	0	(1)		
5 and remediation activities 6 F - Construction	462													
G - Wholesale and retail trade; repair of motor														
7 vehicles and motorcycles	3,205													
8 H - Transportation and storage	3,947													
9 L - Real estate activities	1,370													
Loans collateralised by residential immovable 10 property	7,291	69	93	304	554	21		1,020		341	82	(41)	(17)	(23)
Loans collateralised by commercial immovable														
11 property	2,661	122	202	164	25	8		514		89	58	(45)	(3)	(38)
12 Repossessed colalterals	368							62				(9)		
Other relevant sectors (breakdown below where														
13 relevant)														

^{*}Please note the climate change physical risk template has a cut of date of 30.06.2023, hence the latest acute climate events in Greece (i.e. wildfires and floods) have not been fully evaluated and estimated.

n n

 Table 56:
 5.CC - Banking book- Climate change physical risk: Exposures subject to physical risk 31.12.2022

а	b	С	d	е	f	g	h	i	j	k	ı	m	n	n
							Gro	ss carryin	g amount					
				o	fwhic	h exposi	ıres sensit	ive to imp	act from	climate ch	ange physi	cal e	events	
		Brea	akdow	n by m	aturity	bucket	sensitive		of which exposures sensitive to impact	Of which Stage 2 exposures	Of which non- performing exposures	a char	ccumulated nges in fair	-
		<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years		Average weighted maturity	from chronic climate change events	from acute climate change events	both from chronic and acute climate change events				of which Stage 2 exposures	Of which non- performing exposures
1 A - Agriculture, forestry and fishing	385	226	110	23	1	4			359			(44)	(9)	(30)
2 B - Mining and quarrying 3 C - Manufacturing	24 4,495	8	5	1		4		14		1	2	(2)		(2)
D - Electricity, gas, steam and air conditioning 4 supply	2,096	516	72	52	4	4		644		12		(7)	(1)	
E - Water supply; sewerage, waste management and remediation activities	51	24	13	3	0	5			41	2	1	(1)		
6 F - Construction	450													
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	3,510													
8 H - Transportation and storage	4,048													
9 L - Real estate activities	1,314													
Loans collateralised by residential immovable	7,307	79	103	329	588	21		1,099		392	62	(38)	(17)	(20)
Loans collateralised by commercial immovable	2,587	168	157	194	14	8		534		113	51	(37)	(9)	(23)
12 Repossessed colalterals	376							63				(10)		
Other relevant sectors (breakdown below where														

Other climate change mitigating actions that are not covered in the EU Taxonomy

Due to the relevant additional guidelines by EBA, the Bank presents in the following table, by type of instrument, the exposures on the Bank's asset side of the balance sheet that can potentially be assessed as EU Taxonomy aligned and will eventually be reported on GAR/BTAR templates. More specifically, the table below, despite its original title and purpose (to work alongside Templates 7, 8 and 9, and capture *other* exposures, *over and above* the GAR and BTAR-related ones) shows currently, in the lack of GAR and BTAR indicators, all exposures of the Bank considered as 'green' (by applying own internal standards), as an *interim* indicator of climate change mitigating actions.

Table 57: 10.CC - Other climate change mitigating actions that are not covered in the EU Taxonomy 30.06.2023

	a	b	С	d	е	f
	Type of financial instrument	Type of counterparty	Gross carrying amount	Type of risk mitigated (Climate change transition risk)	Type of risk mitigated (Climate change physical risk)	Qualitative information on the nature of the mitigating actions
1		Financial corporations	71	Yes	No	This category pertains to Green and Sustainable Bonds issued by European Financial Institutions. Based on the review of the underlying Frameworks established by the issuers as well as the associated Impact Reports (where available), the proceeds of these instruments are directed towards activities that aim to promote a sustainable, low-carbon economy.
2	Bonds (e.g. green, sustainable, sustainability-linked under standards other	Non-financial corporations	46	Yes	No	This category encompasses Green and Sustainability-linked bonds that have been issued by Greek corporations. Regarding the Green Bonds, our evaluation entailed a thorough analysis of the use of proceeds as outlined in the respective frameworks, as well as an examination of the corresponding Impact Reports. Based on this analysis, we have concluded that the financing derived from these bonds is being directed towards activities aimed at mitigating the effects of climate change. As for the Sustainability-linked bonds, our assessment has centered on the issuers' stated targets and concluded that these targets are related to clients' decarbonization paths.
3 4	than the EU standards)	Of which Loans collateralised by commercial immovable property				Citatis decardonization patris.
5		Households Of which Loans collateralised by residential immovable property				
6 7		Of which building renovation loans				
7		Other counterparties	20	Yes	No	This category includes a Green Bond issued by an EU Member State.
8		Financial corporations	452	Yes	No	This category mainly consists of loan exposures to Corporate or SME customers that NBG S.A has classified as 'Sustainable' based on the assessment criteria determined in our internal Sustainable Lending Criteria Framework, and loan balances of obligors that are operating in Renewable Energy Sources-related industry. It also includes balances to Small Business customers for the installation of solar panels and the construction of photovoltaic power stations.
9		Non-financial corporations	2,279	Yes	No	This category mainly consists of loan exposures to Corporate or SME customers that NBG S.A has classified as 'Sustainable' based on the assessment criteria determined in our internal Sustainable Lending Criteria Framework, and loan balances of obligors that are operating in Renewable Energy Sources-related industry. It also includes balances to Small Business customers for the installation of solar panels and the construction of photovoltaic power stations.
10	Loans (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Of which Loans collateralised by commercial immovable property	320	Yes	No	This category mainly consists of loan exposures to Corporate or SME customers that NBG S.A has classified as 'Sustainable' based on the assessment criteria determined in our internal Sustainable Lending Criteria Framework, and loan balances of obligors that are operating in Renewable Energy Sources-related industry. It also includes balances to Small Business customers for the installation of solar panels and the construction of photovoltaic power stations.
11		Households	81	Yes	No	The balance refers mainly to loan exposures to individual customers that NBG S.A has classified as 'Green' based on specific characteristics of lending products with a loan purpose of climate change mitigation, such as loans - for energy improvements in homes - for the purchase, repair or construction of energy upgraded homes - for the purchase of new hybrid and electric vehicles
12		Of which Loans collateralised by residential immovable property	27	Yes	No	The balance mainly refers to loan exposures related to the purchase, repair or construction of energy upgraded homes.
13 14		Of which building renovation loans	46	Yes	No	The balance mainly refers to loan exposures related to energy improvements in homes.
14		Other counterparties				

 Table 57: 10.CC - Other climate change mitigating actions that are not covered in the EU Taxonomy 31.12.2022

a b c d e f

	Type of financial instrument	Type of counterparty	Gross carrying amount	Type of risk mitigated (Climate change transition risk)	Type of risk mitigated (Climate change physical risk)	Qualitative information on the nature of the mitigating actions
1		Financial corporations	58	Yes	No	This category pertains to a Green Bond issued by a European financial institution. Based on the Green Bond framework established by the issuer and the corresponding Impact Report, the funds raised from the bond are allocated to initiatives that promote a sustainable, low-carbon economy.
2	Bonds (e.g. green, sustainable, sustainability-linked under standards other	Non-financial corporations	44	Yes	No	This category encompasses Green and Sustainability-linked bonds that have been released by Greek corporations. Regarding the Green Bonds, our evaluation entailed a thorough analysis of the use of proceeds as outlined in the respective frameworks, as well as an examination of the corresponding Impact Reports. Based on this analysis, we have concluded that the financing derived from these bonds is being directed towards activities aimed at mitigating the effects of climate change. As for the Sustainability-linked bonds, our assessment has centered on the issuers' stated targets and concluded that these targets are related to clients' decarbonization paths.
3	than the EU standards)	Of which Loans collateralised by commercial immovable property Households				
5		Of which Loans collateralised by residential immovable property Of which building renovation loans				
7		Other counterparties	5	Yes	No	This category includes Green and Sustainable Bonds that have been issued by either the European Union or its member states.
8		Financial corporations	321	Yes	No	This category maingly consists of loan exposures to Corporate or SME customers that NBG S.A has classified as sustainable based on the assessment criteria determined in our internal Sustainable Lending Criteria Framework or loan balances of obligors that are operating in Renewable Engergy Sources-related industry. There are also included balances to Small Business customers for the installation of solar panels and the construction of photovoltaic power stations.
9		Non-financial corporations	1,664	Yes	No	This category maingly consists of loan exposures to Corporate or SME customers that NBG S.A has classified as sustainable based on the assessment criteria determined in our internal Sustainable Lending Criteria Framework or loan balances of obligors that are operating in Renewable Engergy Sources-related industry. There are also included balances to Small Business customers for the installation of solar panels and the construction of photovoltaic power stations.
	Loans (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Of which Loans collateralised by commercial immovable property	118	Yes	No	This category maingly consists of loan exposures to Corporate or SME customers that NBG S.A has classified as sustainable based on the assessment criteria determined in our internal Sustainable Lending Criteria Framework or loan balances of obligors that are operating in Renewable Engergy Sources-related industry. There are also included balances to Small Business customers for the installation of solar panels and the construction of photovoltaic power stations.
11		Households	78	Yes	No	The balance refers mainly to loan exposures to individual customers that NBG S.A has classified as green based on specific characteristics of lending products with a loan purpose of climate change mitigation such as loans - for energy improvements in homes - for the purchase, repair or construction of energy upgraded homes - for the purchase of new hybrid and electric vehicles
12		Of which Loans collateralised by residential immovable property	62	Yes	No	The balance mainly refers to loan exposures related to energy improvements in homes and purchase, repair or construction of energy upgraded homes.
13		Of which building renovation loans Other counterparties	47	Yes	No	The balance mainly refers to loan exposures related to energy improvements in homes and purchase, repair or construction of energy upgraded homes.

9 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 nonpayment 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 assetbacked 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 resecuritizations.

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 raiting, 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 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"), Resindetial 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 as of December 2021. The portfolio consists of predominantly secured Residential Mortgage loans, Large Corporate, Small and Medium Enterprises ("SMEs"), Small Business Lending ("SBL") and Consumer loans.

NBG has entered into a definitive agreement with funds managed by Bracebridge Capital (the "Investor") for the sale of 95% of the Mezzanine and Junior notes in July 2022. The Bank will retain 100% of the Senior notes and 5% of the mezzanine and junior notes. The Bank has also applied for the provision of the State Guarantee (under the asset protection scheme Hercules II) for the Senior notes, back in June 2022. The guarantee will be activated along with the completion of the transaction, when doValue Greece (the "Servicer") will have already assumed full responsibility for the portfolio servicing. The transaction is estimated to be completed within the 2H.23.

Project "Solar"

In addition to project "Frontier II" and according to its NPE Divestment Policy, NBG along with the rest three systemic banks (i.e. Alpha Bank, Eurobank and Piraeus Bank) initiated a joint transaction for the disposal of a portfolio of Greek NPEs in the form of a rated securitization under the project name "Solar", which aims to utilize the provisions of HAPS. The Solar portfolio consists of predominantly secured Small and Medium Enterprises ("SMEs") loans with a gross book value of c. €1.2 billion as of September 2021, of which c. €170 million correspond to NBG's share. The sale process kicked-off in September 2022 and binding offers were received in December 2022. The transaction is estimated to be completed within the 2H.23.

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.

Table 58: EU SEC1 - Securitisation exposures in the non-trading book (€ mio) 30.06.2023

	Institution acts as originator							nstitutio	n acts as sp	onsor	Institution acts as investo			
_	STS of which SRT	Tradition I	al Non-STS of which SRT	Sy	nthetic of which SRT	Sub-total	_	ditional Non-STS	Synthetic			ditional Non-STS	Synthetic	Sub-total
1 Total exposures		6.8	6.8			6.8						86		86
2 Retail (total) 3 residential mortgage 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		6.8 6.8	6.8 6.8			6.8 6.8						86 86		86 86

Table 58: EU SEC1 - Securitisation exposures in the non-trading book (€ mio) 31.12.2022

			Institutio	n acts as o	riginat	tor	Institution acts as sponsor Institution acts as inve							nvestor	
			Traditional		Syr	thetic	Sub-total	Tra	ditional	Synthetic	Sub-total	Tra	aditional	Synthetic	Sub-total
	_	STS	Non-	STS		of which		STS	Non-STS	1		STS	Non-STS		
		of which SRT		of which SRT		SRT									
1	Total exposures		6.8	6.8			6.8								
2 1	Retail (total)		6.8	6.8			6.8	1							
3	residential mortgage		6.8	6.8			6.8								
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 59: EU SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor (€ mio) 30.06.2023

				values (by F deductions)		Exposure values (by regulatory approach)			n) RWEA (by regulatory approach)				Capital charge after cap				
		≤20% RW	>20% >50% to to 50% 100% RW RW	>100% to <1250% RW	1250% RW/ deductions	IRBA	SEC-ERBA (including IAA)	SEC-SA	1250% RW/ deductions	IRBA	SEC-ERBA (including IAA)	SEC-SA	1250% RW/ deductions	IRBA	SEC-ERBA (including IAA)	SEC-SA	1250% RW/ deductions
1	Total exposures			6.8				6.8				77.5				6	
2	Traditional transactions			6.8				6.8				77.5				6	
3	Securitisation			6.8				6.8				77.5				6	
4	Retail			6.8				6.8				77.5				6	
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 59: EU SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor (€ mio) 31.12.2022

			bands/deductions)				Exposure values (by regulatory approach)			RWEA (by re	Capital charge after cap						
		≤20% RW	>20% >5 to t 50% 10	50% to <	>100% to :1250% RW	1250% RW/ deductions	SEC- IRBA	SEC-ERBA (including IAA)	SEC-SA		SEC- SEC-ERBA IRBA (including IAA)	SEC-SA	1250% RW/ deductions	SEC- SEC IRBA (inc		SEC-SA	1250% RW/ deductions
1	Total exposures				6.8	_			6.8			77.5	_			6.2	_
2	Traditional transactions				6.8				6.8			77.5				6.2	
3	Securitisation				6.8				6.8			77.5				6.2	
4	Retail				6.8				6.8			77.5				6.2	
5	Of which STS																
6	Wholesale																
7	Of which STS																
8	Re-securitisation																
	Synthetic transactions																
10	Securitisation																
11	Retail underlying																
12	Wholesale																
13	Re-securitisation																

Table 60: EU SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments (€ mio) 30.06.2023

			Exposures securitised by the institu	tion - Institution acts as originator or as sponsor
		Total outsta	nding nominal amount	Total amount of specific credit risk adjustments made during the period
			Of which exposures in default	_
1	Total exposures	5,283	4,558	269
2	Retail (total)	5,283	4,558	269
3	residential mortgage	5,283	4,558	269
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 60: EU SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments (€ mio) 31.12.2022

			Exposures securitised by the institut	tion - Institution acts as originator or as sponsor
		Total outsta	anding nominal amount	Total amount of specific credit risk adjustments made during the period
	_		Of which exposures in default	_
1	Total exposures	5,392	4,779	236
2	Retail (total)	5,392	4,779	236
3	residential mortgage	5,392	4,779	236
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			

Investments in securtisation positions

On June 30th, 2023, the Group held investments in rated collateralized loan obligations (CLOs) with a total carrying amount of € 86 mn. The aforementioned investments are risk weighted using the securitization External Ratings-Based Approach (SEC-ERBA).

Table 61: EU SEC4 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor (€ mio) 30.06.2023

	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				n) RWEA (by regulatory approach)					Capital charge after cap		
	≤20%	>20% to	>50% to	>100% to	1250% RW/	SEC-	SEC-ERBA	SEC-	1250% RW/	SEC-	SEC-ERBA	SEC-	1250%	SEC-	SEC-ERBA	SEC-	1250%
	RW	50% RW	100% RW	<1250% RW	deductions	IRBA	(including IAA)	SA	deductions	IRBA	(including IAA)	SA	RW/ deductions	IRBA	(including IAA)	SA	RW/ deduction
1 Total exposures	30			56	_		86				84		_		6.7		_
2 Traditional transactions	30			56			86				84				6.7		
3 Securitisation	30			56			86				84				6.7		
4 Retail 5 Of which STS																	
6 Wholesale	30			56			86				84				6.7		
7 Of which STS 8 Re-securitisation																	
9 Synthetic transactions																	
10 Securitisation																	
11 Retail underlying																	
12 Wholesale																	
13 Re-securitisation																	

10 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 risk stemming from limited or less stable sources of funding over the longer term (i.e., funding risk), or from insufficient available collateral for Eurosystem, secured or wholesale funding (i.e., asset encumbrance risk) or from a concentration in unencumbered assets disrupting the Bank's ability to generate cash in times of reduced market liquidity for certain asset classes (i.e., concentration risk). Therefore, Liquidity Risk captures both the risk of the Bank being unable to liquidate assets in a timely manner with reasonable terms, and the risk of unexpected increases in the Bank's cost of funding.

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.

Liquidity Developments in Q2 2023

During the second quarter of 2023, NBG's liquidity position remained solid, in line with Greece's positive prospects for further economic growth.

LCR and NSFR, as well as the Bank's Liquidity Buffer remain significantly above the regulatory and internal limits, based on its traditional deposit base, notwithstanding TLTRO III repayment.

Sources of liquidity

The Bank's principal sources of liquidity are its customer deposits, Eurosystem funding currently via the TLTROs with ECB, which is gradually decreasing, repurchase agreements (repos) with FIs and wholesale funding through the issuance of (MREL-eligible) securities. 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 own issued covered bonds.

During the second quarter of 2023, NBG remained in a comfortable liquidity position, as the Group customer deposits resumed on an upward trend and stood at €55.7 billion on 30 June 2023, driven by the time deposits growth, as interest rates increased.

Additionally, the Bank's participation to the TLTRO III ECB's refinancing operations, decreased to €1.9 billion on 30 June 2023, compared to €5 billion on 31 March 2023. The Bank's secured interbank funding transactions decreased to almost zero as of 30 June 2023 as well.

As a result, on 30 June 2023 the Bank's LCR stood at the very high level of 244.8% (Group: 253.8%), despite TLTRO III repayment and NSFR reached the highest historical level and stood at 150.1% (Group: 149.3%). Finally, Loan-to-Deposit ratio stood at 56.4% and 57.4% as of 30 June 2023, on a domestic (Greece) and on a Group level, respectively.

During the second quarter of 2023 the Bank's cost of funding increased by 12bps and on 30 June 2023 stood at 58bps. The increase is driven by the maturity of the Bank's cheaper TLTRO funding and the increase in customer deposits' cost, as the ECB raised interest rates further by 50bps.

Finally, the aforementioned positive developments resulted in NBG resting on its historically strongest liquidity buffer of €25.5 billion as at 30 June 2023.

The next tables present the key components of NBG's LCR, as per the respective guidelines on LCR 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 enable 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. Stress testing is performed at least monthly and results are reported to the ALCO & BRC.

Via the ILAAP, the Bank performs annually a comprehensive set of liquidity stress tests, capturing severe market-wide and idiosyncratic economic shocks, including a long-term stress test over a 3-year horizon, in which the Bank's Business Plan is tested under an adverse macroeconomic scenario, designed by the Economic Analysis Unit.

Additionally, other ad-hoc short-term stress test exercises, in order to examine specific extraordinary events, (e.g. the COVID-19 crisis), may be performed when deemed necessary.

Adequacy of liquidity risk management arrangements

The Bank maintains and continuously improves its liquidity management framework, approved by ALCO and BRC, that describes how the Bank manages, monitors, measures and reports liquidity risk. The framework contains policies, metrics, and comprehensive processes that are frequently updated and further enhanced to capture market and bank-specific developments.

Additionally, the Bank's liquidity risk management framework is further reviewed and evaluated by the Single Supervisory Mechanism ("SSM") ensuring its effectiveness, continuous improvement and suitability.

Institution's overall liquidity risk profile associated with the business strategy

The Bank's current liquidity state is at its strongest levels historically, as it is outlined by the Basel III regulatory liquidity metrics, which are significantly higher than their respective regulatory minimums. The overall risk profile of NBG also encompasses the maintenance of a very high liquidity buffer and a steadily increasing deposit base. 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 longerterm available funding."

Customised measurement tools or metrics

In order to effectively monitor liquidity risk, the Bank has introduced an additional risk appetite metric with specific related limits, in the current Risk Appetite Framework. Except for the RAF limits on the regulatory metrics of Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), the Bank also measures and manages an internal liquidity risk metric, the Liquidity Buffer (HQLAs), which stands at the highest historical level of €21 billion as of 30 June 2023, well above the risk tolerance limit.

Liquidity exposures and funding needs at the level of individual legal entities, foreign branches and subsidiaries

The Group's subsidiaries measure, report and manage their own individual Liquidity Risk, ensuring they are self-sufficient in case of a local crisis.

Table 62: EU LIQ1 - Quantitative Information of Liquidity Coverage Ratio 2023

€ mio		Total unweig	ghted value	Total weigl	nted value
Quarter 6	ending on	31.03.2023	30.06.2023	31.03.2023	30.06.2023
Number	of data points used in the calculation of averages	12	12	12	12
HIGH-QU	ALITY LIQUID ASSETS				
1	Total high-quality liquid assets			23,638	23,752
CASH-OU	TFLOWS				
2	Retail deposits and deposits from small business customers, of which:	35,894	35,940	2,151	2,170
3	Stable deposits	31,126	31,034	1,556	1,552
4	Less stable deposits	4,768	4,905	595	618
5	Unsecured wholesale funding	13,464	13,149	5,551	5,348
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks				
7	Non-operational deposits (all counterparties)	13,464	13,149	5,551	5,348
9	Secured wholesale funding	0	0	2	0
10	Additional requirements	1,248	1,400	1,248	1,400
11	Outflows related to derivative exposures and other collateral requirements	1,248	1,400	1,248	1,400
13	Credit and liquidity facilities				
14	Other contractual funding obligations	360	269	338	246
15	Other contingent funding obligations	12,857	13,596	736	779
16	TOTAL CASH OUTFLOWS			10,026	9,943
CASH-INF	LOWS				
18	Inflows from fully performing exposures	730	701	594	568
19	Other cash inflows	187	213	184	210
20	TOTAL CASH INFLOWS	917	914	777	778
EU-20c	Inflows Subject to 75% Cap	917	914	777	778
				TOTAL ADJUS	
21	LIQUIDITY BUFFER			23,638	23,752
22	TOTAL NET CASH OUTFLOWS			9,249	9,166
23	LIQUIDITY COVERAGE RATIO (%)			255.9	259.8

Table 62: EU LIQ1 - Quantitave Information of Liquidity Coverage Ratio 2022

€ mio			Total unwei	ighted value			Total weig	hted value	
Quarter endin	g on	31.03.22	30.06.22	30.09.22	31.12.22	31.03.22	30.06.22	30.09.22	31.12.22
Number of dayerages	lata points used in the calculation of	12	12	12	12	12	12	12	12
HIGH-QUALIT	Y LIQUID ASSETS								
1 Total hi	gh-quality liquid assets					21,999	22,642	22,870	23,170
CASH-OUTFLC	DWS								
Retail d	eposits and deposits from small business								
2 custome	•	33,051	33,925	34,752	35,500	1,924	1,987	2,049	2,112
of which									
3 Stable a	leposits	29,229	29,867	30,446	30,929	1,461	1,493	1,522	1,546
4 Less sta	ble deposits	3,822	4,059	4,306	4,571	462	493	527	565
5 Unsecui	red wholesale funding	12,572	13,011	13,510	13,598	5,300	5,496	5,652	5,657
h ·	onal deposits (all counterparties) and s in networks of cooperative banks								
7 Non-ope	erational deposits (all counterparties)	12,572	13,011	13,510	13,598	5,300	5,496	5,652	5,657
9 Secured	l wholesale funding		0	0	0		3	3	3
10 Addition	nal requirements	1,125	1,032	1,091	1,156	1,125	1,032	1,091	1,156
11	rs related to derivative exposures and other al requirements	1,125	1,032	1,091	1,156	1,125	1,032	1,091	1,156
13 Credit a	nd liquidity facilities								
	ontractual funding obligations	527	532	478	402	508	512	457	381
15 Other co	ontingent funding obligations	9,882	10,633	11,345	12,062	565	608	649	689
16 TOTAL (CASH OUTFLOWS	-	-	-	-	9,422	9,638	9,900	9,997
CASH-INFLOW	/S								
18 Inflows	from fully performing exposures	711	725	727	758	578	595	603	617
19 Other ca	ash inflows	200	154	160	167	197	151	158	164
	CASH INFLOWS	911	879	887	924	774	746	760	781
EU- 20c <i>Inflows</i>	Subject to 75% Cap	911	879	887	924	774	746	760	781
21 11011151	TV DUFFED						ADJUSTED		22 170
•	TY BUFFER NET CASH OUTFLOWS					21,999 8,648	22,642 8,892	22,870	23,170
	TY COVERAGE RATIO (%)					8,648 254.7	8,892 254.7	9,139 250.5	9,217 251.6
23 LIQUIDI	11 COVERAGE RATIO (%)					254.7	254.7	230.3	251.0

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 tables above that the Bank's LCR remains significantly above the regulatory limit, despite TLTRO III repayment in Q2 2023, which reflects the continuous improvement of NBG's liquidity profile, driven by the customer deposits growth.

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 successful MREL issuances.

Explanations on the actual concentration of funding sources

NBG's participation to the ECB TLTRO III refinancing operations, decreased, as ECB changed the modalities of the TLTRO, curbing significantly its public funding dependance.

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, which are considered relevant for the Bank's liquidity profile and are not captured in the LCR disclosure template.

Table 63: EU LIQ2 - Net Stable Funding Ratio 30.06.2023

		Unweighted value by residual maturity W				
		No maturity	< 6m	6m to < 1yr	≥ 1yr	
vailable s	table funding (ASF) Items					
1	Capital items and instruments	7,035	0	0	424	7,458
2	Own funds	7,035	0	0	424	7,458
3	Other capital instruments	0	0	0	0	0
4	Retail deposits	0	36,984	2,922	2,992	40,617
5	Stable deposits	0	31,689	2,496	2,549	35,025
6	Less stable deposits	0	5,296	426	442	5,591
7	Wholesale funding:	0	12,985	1,100	2,641	9,189
8	Operational deposits	0	0	0	0	0
9	Other wholesale funding	0	12,985	1,100	2,641	9,189
10	Interdependent liabilities	0	0	0	0	0
11	Other liabilities:	425	3,000	0	0	0
12	NSFR derivative liabilities	425				
13	All other liabilities and capital instruments not included in the		3,000	0	0	0
	above categories		3,000			
14	TOTAL AVAILABLE STABLE FUNDING (ASF)					57,289
	table funding (RSF) Items					
15	Total high-quality liquid assets (HQLA)	0	0	0	0	441
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	7,494	2,271	26,571	25,556
18	Performing securities financing transactions with financial	0	3,011	0	0	0
	customers collateralised by Level 1 HQLA subject to 0% haircut	U	3,011	U	U	U
19	Performing securities financing transactions with financial					
	customer collateralised by other assets and loans and advances to financial institutions	0	1,467	144	242	460
20	Performing loans to non- financial corporate clients, loans to					
20	retail and small business customers, and loans to sovereigns,	0	2,700	1,883	16,278	16,272
	and PSEs, of which:	· ·	_,, 00	1,003	20,270	20,272
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	252	192	6,354	5,623
23	With a risk weight of less than or equal to 35% under the Basel	0	0	0	0	0
	II Standardised Approach for credit risk	U	U	U	U	O
24	Other loans and securities that are not in default and do not	_				
	qualify as HQLA, including exchange-traded equities and trade	0	64	52	3,697	3,201
25	finance on-balance sheet products	•	•	•	•	•
25	Interdependent assets	0	0	0	0	0
26 27	Other assets:	0	2,725	22	10,802	11,884
	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	987	0	0	839
29	NSFR derivative assets	0	0	0	0	0
30	NSFR derivative liabilities before deduction of variation margin					
	posted	0	944	0	0	47
31	All other assets not included in the above categories	0	794	22	10,802	10,998
32	Off-balance sheet items	0	0	0	5.020	502
3	TOTAL REQUIRED STABLE FUNDING (RSF)					38,383
						·
4	NET STABLE FUNDING RATIO (%)					149.3

 Table 63: EU LIQ2 - Net Stable Funding Ratio 31.12.2022

€ mio		Unweighted value by residual maturity				Weighted val
	-	No maturity	< 6m	6m to < 1yr	≥ 1yr	-
Available :	stable funding (ASF) Items				-	-
1	Capital items and instruments	6,399	0	0	399	6,799
2	Own funds	6,399	0	0	399	6,799
3	Other capital instruments	0	0	0	0	0
4	Retail deposits	0	39,755	1,362	707	39,488
5	Stable deposits	0	34,329	1,161	594	34,310
6	Less stable deposits	0	5,426	201	114	5,178
7	Wholesale funding:	0	20,072	14	3,686	9,989
8	Operational deposits	0	0	0	0	0
9	Other wholesale funding	0	20,072	14	3,686	9,989
10	Interdependent liabilities	0	0	0	0	0
11	Other liabilities:	384	2,940	0	0	0
12	NSFR derivative liabilities	384				
13	All other liabilities and capital instruments not included in the		2,940	0	0	0
	above categories		2,570			
14	TOTAL AVAILABLE STABLE FUNDING (ASF)		-		-	56,275
	stable funding (RSF) Items					
15	Total high-quality liquid assets (HQLA)	0	0	0	0	448
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	7,732	2,295	27,229	26,413
18	Performing securities financing transactions with financial	0	3,321	0	0	0
18	customers collateralised by Level 1 HQLA subject to 0% haircut	U	3,321	U	U	U
	Performing securities financing transactions with financial					
19	customer collateralised by other assets and loans and advances to financial institutions	0	1,270	1	333	460
	Performing loans to non- financial corporate clients, loans to					
20	retail and small business customers, and loans to sovereigns,	0	2,793	2,064	16,347	16,697
20	and PSEs, of which:	· ·	2,733	2,001	10,017	10,037
	With a risk weight of less than or equal to 35% under the Basel					
21	II Standardised Approach for credit risk	0	0	0	0	0
22	Performing residential mortgages, of which:	0	296	196	6,932	6,138
	With a risk weight of less than or equal to 35% under the Basel					
23	II Standardised Approach for credit risk	0	0	0	0	0
	Other loans and securities that are not in default and do not					
24	qualify as HQLA, including exchange-traded equities and trade	0	54	33	3,617	3,118
	finance on-balance sheet products				*	ŕ
25	Interdependent assets	0	0	0	0	0
26	Other assets:	0	2,788	0	10,021	11,130
27	Physical traded commodities	s0	0	0	0	0
	Assets posted as initial margin for derivative contracts and		1 250		0	1.063
28	contributions to default funds of CCPs	0	1,250	0	0	1,063
29	NSFR derivative assets	0	0	0	0	0
20	NSFR derivative liabilities before deduction of variation margin	0	020	0	0	10
30	posted	0	920	0	0	46
31	All other assets not included in the above categories	0	618	0	10,021	10,021
32	Off-balance sheet items	0	0	0	4,754	475
33	TOTAL REQUIRED STABLE FUNDING (RSF)					38,467
34	NET STABLE FUNDING RATIO (%)					146.3

APPENDIX

List of abbreviations

Abbreviation	Definition	Abbreviation	Definition		
ABS	Asset-Backed Securities	IAS	International Accounting Standards		
ACC	Additional Credit Claims	ICAAP / ILAAP	Internal Capital / Liquidity Adequa Assessment Process		
AFS	Available for Sale	ICMA	International Capital Markets Association		
A-IRB	Advanced Internal Ratings Based (Approach)	ICT	Information and Communication Technology		
ALCO	Asset Liability Committee	IFRS	International Financial Reporting Standards		
ALM	Asset Liquidity Management	IMA	Internal Model Approach		
AMC	Asset Management Companies	IRB	Internal Ratings Based (approach)		
AML	Anti-Money Laundering	IRRBB	Interest Rate Risk in the Banking Book		
APP	Asset Purchasing Program	IRS	Interest Rate Swaps		
APS	Asset Protection Scheme	ISDA	International Swaps and Derivatives Association		
ATHEX	Athens Exchange	IT	Information Technology		
BAC	Board Audit Committee	ITS	Implementing Technical Standards		
BC	Bankruptcy Code	IVS	International Valuation Standards		
BCBS	Basel Committee on Banking Supervision	JST	Joint Supervisory Team		
BoG	Bank of Greece	KPI	Key Performance Indicator		
BoS	Board of Supervisors (EBA)	KRI	Key Risk Indicator		
bps	Basis Point	LCR	Liquidity Coverage Ratio		
BRC	Board Risk Committee	LGD	Loss Given Default		
BRRD	Bank Recovery and Resolution Directive	LR	Leverage Ratio		
BTAR	Banking Book Taxonomy Alignment Ratio	M&A	Mergers and Acquisitions		
BU	Business Unit	MDA	Maximum Distributable Amount		
C&E	Climate & Environment	MIS	Management Information System		
CBR	Combined Buffer Requirements	ML	Money Laundering		
ССВ	Capital Conservation Requirement	МоВ	Months on Book		
CCF	Credit Conversion Factor	MRA	Moody's Risk Advisor		
ССМ	Climate Change Mitigation	MREL	Minimum Requirements for Own Funds & Eligible Liabilities		
ссо	Chief Credit Officer	MRO	Main Refinancing Operations		
ССР	Code of Civil Procedure	MVS	Model Validation Sector		
CCR	Counterparty Credit Risk	MVU	Model Validation Unit		
ССуВ	Countercyclical Capital Buffer	NACE	Nomenclature of Economic Activities		
CDS	Credit Default Swap	NBG	National Bank Of Greece, S.A		
CEBS	Committee of European Banking Supervisors	NCA	National Competent Authority		
CEF	Credit Equivalent Factor	NFC	Non-Financial Corporates		
CEO	Chief Executive Officer	NII	Net Interest Income		
CET1	Common Equity Tier 1	NMRF	Non-Modellable Risk Factors		
CFO	Chief Financial Officer	NPE	Non Performing Exposure		
CMS	Collateral Management System	NPL	Non Performing Loan		
COO	Chief Operations Officer	NPV	Net Present Value		
CPRS	Climate Policy Relevant Sectors	NRA	National Resolution Authorities		
CRD	Capital Requirements Directive	NSFR	Net Stable Funding Ratio		
CRM	Corporate Rating Model	NZ Framework	Net Zero Framework		
CRO	Chief Risk Officer	O/N	Overnight		
CRR	Capital Requirements Regulation	OCP	Open Currency Position		
CSA	Credit Support Annex	OCR			
CSA	• • • • • • • • • • • • • • • • • • • •		Overall Capital Requirement Out-of-Court Workout		
	Corporate Sector Purchasing Program	OCW			
CSRBB	Credit Spread Risk in the Banking Book	OR	Operational Risk		
CSR	Corporate Social Responsibility	ORCO	Operational Risk Management Committee		
CVA	Credit Valuation Adjustment	ORMF	Operational Risk Management Framework		
DCD	Domestic Credit Division	ORR	Obligors' Risk Rating		

APPENDIX

DGSD Deposit Guarantee Schemes Directive O-SII Other Systemically Important Instituted days past due OTC Over-the-counter DDD Definition of Deafult P&L Profit and Loss DTA Deferred Tax Asset P2G Pillar 2 Guidance DTC Deferred Tax Credit P2R Pillar 2 Requirement EAD Exposure at Default PD Probability of Default EBA European Banking Authority PE Performing Exposures EBF European Banking Federation PELTROS Pandemic Emergency Long-Term Institutions EBITDA Earnings Before Interest, Tax, Depreciation and Amortization PEPP Pandemic Emergency Purchase Progrations EC European Commission PMO Project Management Office ECAI External Credit Assessment Institutions ppts Percentage points ECB European Commission PMO Project Management Office ECAI External Credit Assessment Institutions ppts Percentage points ECB European Commission PSE Public Sector Entity ECB<	Refinancing
DoD Definition of Deafult P&L Profit and Loss DTA Deferred Tax Asset P2G Pillar 2 Guidance DTC Deferred Tax Credit P2R Pillar 2 Requirement EAD Exposure at Default PD Probability of Default EBA European Banking Authority PE Performing Exposures EBF European Banking Federation PELTROS Pandemic Emergency Long-Term In Operations EBITDA Earnings Before Interest, Tax, Depreciation and Amortization EC European Commission PMO Project Management Office ECAI External Credit Assessment Institutions ppts Percentage points ECB European Central Bank PSE Public Sector Entity ECL Expected Credit Losses PSI Private Sector Involvement EDIS European Deposit Insurance Scheme QCCP Qualifying Central Counterparty EFSF European Financial Stability Facility RAF Risk Appetite Framework EIB European Investment Bank RAPM Risk-Adusted Performance Metrics EIF European Investment Fund RCF Risk Culture Framework EIOPA European Insurance & Occupational Pensions RCSA Risk and Control Self-Assessment Authority EL Expected Loss EPC Energy Performance Certificate RTS Regulatory Technical Standards EPC Energy Performance Certificate RTS Regulatory Technical Standards ERBA External Ratings Based Approach RWA Risk Weighted Assets ESA European Supervisory Authorities SA Standardized Approach ESG Environmental, Social & Governance SAU Special Assets Unit ESMA European Securities & Markets Authority SEC Securities and Exchange Commission ESGM European Systemic Risk Board SFDR Sustainable Finance Disclosure Regules ESG Environmental, Forcial & Markets Authority SEC Securities and Exchange Commission	ram
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ETEAN Hellenic Fund for Entrepreneurship and SGP Stability & Growth Pact Development	
EU European Union SICR Significant Increase of Credit Risk	
EVE Economic Value of Equity SL Specialised Lending	
EVS European Valuation Standards SME Small & Medium Enterprises	
EW Early Warning SPPI Solely Payments of Principal and Inte	erest
ExCo Executive Committee SPV Special Purpose Vehicle	050
FBE Forborne Exposures SR Securitization Repositories	
FI Financial Institution SRB Single Resolution Board FIRE Supply Section internal retires based (approach) SRCO Segment Risk & Control Officer	
F-IRB Foundation internal ratings-based (approach) SRCO Segment Risk & Control Officer	\
FRTB Fundamental Review of the Trading Book SREP Supervisory Review and Evaluation P	rocess
FSB Financial Stability Board SRM Single Resolution Mechanism	
FVTOCI Fair Value Through Other Comprehensive SSM Single Supervisory Mechanism Income	
FVTPL Fair Value Through Profit or Loss ST Stress Test	
FX Foreign Exchange STS Single, Transparent, St (securitization)	andardized
GAAP Generally Accepted Accounting Principles sVaR Stressed Value at Risk	
GAR Green Asset Ratio TF Terrorist Financing	
GHG emissions Greenhouse Gas Emissions TFEU Treaty on the Functioning of the Union	European
GGB Greek Government Bond TLAC Total Loss Absorbing Capacity	
GHOS Governors and Heads of Supervision TLTRO Targeted Long-Term Refinancing Ope	erations
GICD Group International Credit Division TRIM Targeted Review of Internal Models	
GL Guidelines TSCR Total SREP Capital Requirement	
GMORM(D) Group Market & Operational Risk Management URCO Unit Risk & Control Officer	
(Division)	
GMRA Global Master Repurchase Agreement UAT User Acceptance Testing	
GRC Governance Risk & Compliance UTP Unlikeliness to Pay	
GRCA(D) OGroup Risk Control & Architecture (Division) VaR Value at Risk	

APPENDIX

GRCD	Group Retail Credit Division	VCV	Variance-Covariance
G-SII	Global Systemically Important Institution	WAM	Weighted Average Maturity
HCMC	Hellenic Capital Market Commission		
HDB	Hellenic Development Bank		
HFSF	Hellenic Financial Stability Fund		
HRRC	Human Resources and Remuneration Committee		
HTCS	Held to Collect and Sell		