Barclays PLC
Pillar 3 Report 2023

Creating positive outcomes for our stakeholders

Our Purpose

Working together for a better financial future

Our Vision

A UK-centred leader in global finance

A comprehensive and pre-eminent UK consumer, corporate, wealth and private banking franchise
The leading non-US based investment bank
A strong, specialist US consumer bank

Our Values

Respect
We harness the power of diversity and inclusion in our business, trust those we work with, and value everyone's contribution.

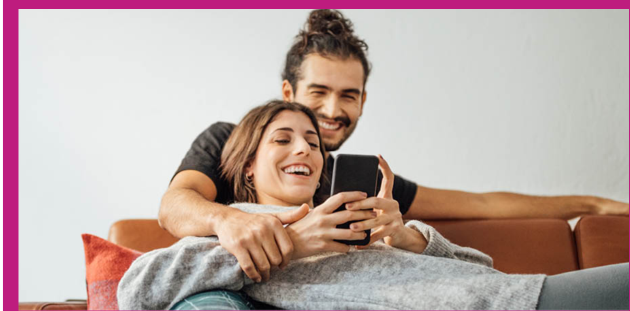
Integrity
We operate with honesty, courage, transparency and fairness in all we do.

Service
We act with empathy and humility, putting the people and businesses we serve at the centre of what we do

Excellence
We set high standards for what we do, championing innovation and using our energy, expertise and resources to make a positive difference

Stewardship
We prize sustainability, and are passionate about leaving things better than we found them.

Customers and clients



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+ **For an index of all risk disclosures in the Pillar 3 and Annual Reports** please see page 218

Barclays PLC Pillar 3 report

The terms Barclays or Group refer to Barclays PLC together with its subsidiaries. The abbreviations '£m' and '£bn' represent millions and thousands of millions of Pounds Sterling respectively.

There are a number of key judgement areas, for example impairment calculations, which are based on models and which are subject to ongoing adjustment and modifications. Reported numbers reflect best estimates and judgements at the given point in time.

Relevant terms that are used in this document but are not defined under applicable regulatory guidance or International Financial Reporting Standards (IFRS) are explained in the results glossary that can be accessed at home.barclays/investor-relations/reports-and-events/latest-financial-results

Forward-looking statements

This document contains certain forward-looking statements within the meaning of Section 21E of the US Securities Exchange Act of 1934, as amended, and Section 27A of the US Securities Act of 1933, as amended, with respect to the Group. Barclays cautions readers that no forward-looking statement is a guarantee of future performance and that actual results or other financial condition or performance measures could differ materially from those contained in the forward-looking statements. Forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. Forward-looking statements sometimes use words such as 'may', 'will', 'seek', 'continue', 'aim', 'anticipate', 'target', 'projected', 'expect', 'estimate', 'intend', 'plan', 'goal', 'believe', 'achieve' or other words of similar meaning. Forward-looking statements can be made in writing but also may be made verbally by directors, officers and employees of the Group (including during management presentations) in connection with this document. Examples of forward-looking statements include, among others, statements or guidance regarding or relating to the Group's future financial position, business strategy, income levels, costs, assets and liabilities, impairment charges, provisions, capital, leverage and other regulatory ratios, capital distributions (including policy on dividends and share buybacks), return on tangible equity, projected levels of growth in banking and financial markets, industry trends, any commitments and targets (including environmental, social and governance (ESG) commitments and targets), plans and objectives for future operations and other statements that are not historical or current facts. By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances. Forward-looking statements speak only as at the date on which they are made. Forward-looking statements may be affected by a number of factors, including, without limitation: changes in legislation, regulations, governmental and regulatory policies, expectations and actions, voluntary codes of practices and the interpretation thereof, changes in IFRS and other accounting standards, including practices with regard to the interpretation and application thereof and emerging and developing ESG reporting standards; the outcome of current and future legal proceedings and regulatory investigations; the Group's ability along with governments and other stakeholders to measure, manage and mitigate the impacts of climate change effectively; environmental, social and geopolitical risks and incidents, pandemics and similar events beyond the Group's control; the impact of competition in the banking and financial services industry; capital, liquidity, leverage and other regulatory rules and requirements applicable to past, current and future periods; UK, US, Eurozone and global macroeconomic and business conditions, including inflation; volatility in credit and capital markets; market related risks such as changes in interest rates and foreign exchange rates; reforms to benchmark interest rates and indices; higher or lower asset valuations; changes in credit ratings of any entity within the Group or any securities issued by it; changes in counterparty risk; changes in consumer behaviour; the direct and indirect consequences of the conflicts in Ukraine and the Middle East on European and global macroeconomic conditions, political stability and financial markets; political elections; developments in the UK's relationship with the European Union (EU); the risk of cyberattacks, information or security breaches, technology failures or other operational disruptions and any subsequent impacts on the Group's reputation, business or operations; the Group's ability to access funding; and the success of acquisitions, disposals and other strategic transactions. A number of these factors are beyond the Group's control. As a result, the Group's actual financial position, results, financial and non-financial metrics or performance measures or its ability to meet commitments and targets may differ materially from the statements or guidance set forth in the Group's forward-looking statements. In setting its targets and outlook for the period 2024-2026, Barclays has made certain assumptions about the macro-economic environment, including, without limitation, inflation, interest and unemployment rates, the different markets and competitive conditions in which Barclays operates, and its ability to grow certain businesses and achieve costs savings and other structural actions. Additional risks and factors which may impact the Group's future financial condition and performance are identified in Barclays PLC's filings with the SEC (including, without limitation, Barclays PLC's Annual Report on Form 20-F for the financial year ended 31 December 2023), which are available on the SEC's website at www.sec.gov

Subject to Barclays PLC's obligations under the applicable laws and regulations of any relevant jurisdiction (including, without limitation, the UK and the US) in relation to disclosure and ongoing information, we undertake no obligation to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Barclays PLC Pillar 3 report

Our annual disclosures contain extensive information on risk as well as capital management. The Pillar 3 report provides a detailed breakdown of Barclays' regulatory capital adequacy and how this relates to Barclays' risk management.

Capital position and risk management in 2023

Anna Cross
Group Finance Director

Taalib Shaah
Group Chief Risk Officer

The CET1 ratio decreased to 13.8% (December 2022: 13.9%) as RWAs increased by £6.2bn to £342.7bn partially offset by an increase in CET1 capital of £0.4bn to £47.3bn.

The UK leverage ratio decreased to 5.2% (December 2022: 5.3%) primarily due to an increase in the leverage exposure.

Summary of risk profile

This section presents a high-level summary of Barclays' risk profile and its interaction with the Group's risk appetite. Please see page 218 for a comprehensive index of all risk disclosures.

The Board makes use of the Risk Appetite Framework to set appetite, and continuously monitors existing and emerging risks. The Group sets its risk appetite in terms of performance metrics as well as a set of mandate and scale limits to monitor risks. The following risk metrics reflect the Group's risk profile:

Common Equity Tier 1 ratio

13.8%

2022: 13.9%
(see page 21)

Common Equity Tier 1 capital

£47.3bn

2022: £46.9bn
(see page 21)

Risk weighted assets

£342.7bn

2022: £336.5bn
(see page 27)

UK leverage ratio

5.2%

2022: 5.3%
(see page 22)

Own funds and eligible liabilities ratio as a percentage of RWAs

33.6%

2022: 33.5%
(see page 34)

Liquidity coverage ratio (LCR)

161%

2022: 165%
(see page 39)

Net stable funding ratio (NSFR)

138%

2022: 137%
(see page 41)

Summary of risk profile continued

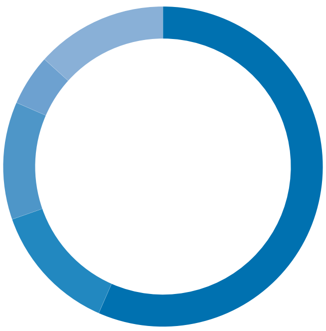
- The CET1 ratio decreased to 13.8% (December 2022: 13.9%) as RWAs increased by £6.2bn to £342.7bn partially offset by an increase in CET1 capital of £0.4bn to £47.3bn
- The UK leverage ratio decreased to 5.2% (December 2022: 5.3%) primarily due to a £38.3bn increase in leverage exposure to £1,168.3bn, largely driven by an increase in trading portfolio assets within Global Markets
- Credit impairment charges were £1,881m (2022: £1,220m), driven by higher delinquencies in US cards, which was anticipated and led to higher coverage ratios. Total coverage ratio remains strong at 1.4% (December 2022: 1.4%)
- The liquidity metrics remain well above regulatory requirements, underpinned by well-diversified sources of funding, a stable global deposit franchise and a highly liquid balance sheet
- The liquidity pool was £298.1bn (December 2022: £318.0bn). The decrease in the liquidity pool was driven by an increase in business funding consumption, a reduction in wholesale funding and a slight reduction in overall deposits, with a decrease in Barclays UK deposits being largely offset by growth in Corporate Bank deposits, reflecting macroeconomic conditions
- The average[a] Liquidity Coverage Ratio (LCR) increased to 161% (December 2022: 156%), equivalent to a surplus of £117.7bn (December 2022: £114.4bn) Total deposits remained largely stable at £538.8bn (December 2022: £545.8bn)
- The average[b] Net Stable Funding Ratio was 138% (December 2022: 137%), which represents a £167.1bn (December 2022: £155.6bn) surplus above the 100% regulatory requirement

Notes

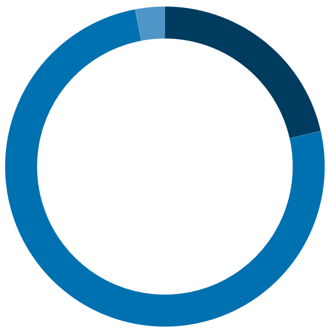
a Represents average of the last 12 spot month end ratios.
b. Represents average of the last four spot quarter end ratios.

+ Please see page 107 for more information on risk appetite, and page 258 of the Annual Report for material and emerging risks.

RWAs increased £6.2bn to £342.7bn
(December 2022: £336.5bn):



	2023 £bn	2022 £bn
Credit risk	**194.0**	197.3
Counterparty credit risk	**44.7**	42.0
Market risk	**40.8**	36.8
Securitisation	**17.7**	16.6
Operational risk	**45.6**	43.8



	2023 £bn	2022 £bn
Barclays UK	**73.5**	73.1
Barclays International	**259.1**	254.8
Head Office	**10.2**	8.6

- Credit Risk RWAs decreased £3.3bn to 194.0bn primarily due to foreign exchange movements, model updates and lower lending within Corporate and Investment Bank (CIB) and Barclays UK mortgages, partially offset by increases in methodology and policy, higher credit card balances within Consumer Cards and Payments (CC&P) and House Price Index (HPI) refresh within Barclays UK
- Counterparty credit risk RWAs increased £2.7bn to £44.7bn primarily due to trading activity and increases in methodology and policy, partially offset by foreign exchange movements
- Market risk RWAs increased £3.9bn to £40.8bn primarily due to trading activity within CIB and an increase in model updates to capture incremental risk arising from Stressed Value at Risk (SVaR) measured on a 10-day basis
- Securitisation RWAs increased £1.1bn to £17.7bn primarily driven by an increase in business activities
- Operational risk RWAs increased £1.7bn to £45.6bn primarily driven by the inclusion of higher 2023 CC&P and Barclays UK income compared to 2020
- Barclays UK RWAs increased to £73.5bn (December 2022: £73.1bn), primarily due to the acquisition of Kensington Mortgage Company (KMC), broadly offset by a reduction across lending portfolios
- Barclays International RWAs increased to £259.1bn (December 2022: £254.8bn) driven by higher CC&P RWAs
- Barclays Head Office RWAs were £10.2bn (December 2022: £8.6bn) primarily driven by methodology and policy updates, and increases in non-customer assets

For more information refer to credit risk (page 47), counterparty credit risk (page 85), market risk (page 92), and operational risk (page 102).

Notes on basis of preparation

Disclosure background

Barclays PLC Pillar 3 disclosures complement the Barclays PLC 2023 Annual Report and provide additional information about Barclays' risk profile, including its regulatory capital, minimum requirements for own funds and eligible liabilities (MREL), RWAs, liquidity and leverage exposures.

The Pillar 3 report is prepared in accordance with the Capital Requirements Regulation and Capital Requirements Directive (CRR and CRD V). In particular, articles 431 to 455 of CRR specify the requirements of the Pillar 3 framework. Those regulations came into force on 1 January 2022, and were implemented by the Prudential Regulatory Authority (PRA) via the PRA Rulebook.

References to CRR, as amended by CRR II, mean the capital regulatory requirements, as they form part of domestic law by virtue of the European Union (Withdrawal) Act 2018, as amended.

The terms risk weighted asset (RWA) and risk weighted exposure amount (RWEA) are used interchangeably throughout the document.

The disclosures included in this report reflects the Barclays PLC's interpretation of the current rules and guidance.

+ **See 'Application of the Basel framework'** on page 10 for a more detailed description

Future regulatory changes

On 23 May 2022, the Financial Policy Committee (FPC) amended the assessment methodology of the Other-Systemically Important Institutions (O-SII) buffer to be based on average UK leverage exposure, rather than total assets, from 31 December 2022. This is in effect from the 2023 assessment and buffer applicable from 1 January 2025.

On 30 November 2022, the PRA published its consultation paper 'Implementation of the Basel 3.1 standards', which covers the remaining parts of the Basel III standards to be implemented in the UK.

On 27 September 2023, the PRA announced their intention to move the final Basel 3.1 standards implementation date by six months to 1 July 2025 and to reduce the transitional period to 4.5 years to ensure full implementation by 1 January 2030.

On 12 December 2023, the PRA published its Policy Statement 'Implementation of the Basel 3.1 standards near-final part 1' (PS17/23), which covers the Credit Valuation Adjustments (CVA), Counterparty Credit Risk (CCR), Market Risk and Operational Risk elements of the Basel 3.1 standards. A second near final policy statement is expected in Q2 2024 which will cover; Credit Risk - Standardised Approach (SA) and Internal Ratings Based approach (IRB), Credit Risk Mitigation (CRM), Output Floor, Reporting and Disclosure.

Notes on basis of preparation (continued)

Presentation of risk data in the Pillar 3 disclosures versus the Annual Report and Accounts

This document discloses Barclays' assets in terms of exposures and capital requirements. For the purposes of this document:

Credit losses

Where credit impairment or losses are disclosed within this document, Barclays has followed the IFRS definitions used in the Annual Report.

Scope of application

Where this document discloses credit exposures or capital requirements, Barclays has followed the scope and application of its Pillar 1 capital adequacy calculations (unless noted otherwise).

Definition of credit exposures

- Credit exposure, or 'Exposure at Default' (EAD) is defined as the estimate of the amount at risk in the event of a default (before any recoveries) or through the decline in value of an asset. This estimate takes account of contractual commitments related to undrawn amounts
- In contrast, an asset on the Group's balance sheet is reported as a drawn balance only. This is one of the reasons why exposure values in the Pillar 3 report differ from asset values as reported in the Annual Report

Table 4 provides a reconciliation between IFRS balances and EAD for credit risk, counterparty credit risk and securitisations.

Policy, validation and sign-off

Throughout the year ended 31 December 2023, and to date, Barclays has operated a framework of disclosure controls and procedures to ensure the completeness and accuracy of the Group's Pillar 3 disclosure.

+ **See Appendix D** for the reference to Barclays' compliance with the Pillar 3 disclosure requirements.

Barclays is committed to operating within a strong system of internal controls. A framework of disclosure controls and procedures are in place to support the approval of the Group's external regulatory disclosures. Specific governance committees are responsible for examining the Group's external reports and disclosures to ensure they have been subject to adequate verification and comply with applicable standards and legislation. These committees report their conclusions to the Board Audit Committee (BAC).

This governance process is in place to provide both management and the Board with sufficient opportunity to debate and challenge the Group's disclosures before they are made public.

"We confirm that Barclays' Pillar 3 disclosures, to the best of our knowledge, comply with the updated Pillar 3 framework within the PRA Rulebook and have been prepared in compliance with Barclays' internal control framework".

Anna Cross
Group Finance Director

Taalib Shaah
Chief Risk Officer

Scope and application of Basel framework

This section explains the scope of application of Basel framework in relation to capital adequacy.

Tables 1 and 2

Show the scope of permission of calculation approaches that summarises the various approaches to calculate risk weighted assets, and Barclays' permission to use them.

Tables 3 and 4

Show the mapping of financial statement categories to the regulatory risk types and a reconciliation of financial statement carrying values against regulatory exposures.

Table 5

Shows the entities which have a different method of consolidation between accounting and regulatory balance sheets.

Table 8

Shows how IFRS balances contribute to the regulatory scope of consolidation on a line-by-line basis.

Application of the Basel framework

Overview

Barclays has applied the Basel framework since inception. This is currently implemented in accordance with CRR and CRD requirements and the PRA Rulebook.

Pillar 1:

covers the regulatory capital requirements including the calculation of risk weighted assets for credit risk, counterparty credit risk, market risk and operational risk

Pillar 2:

covers the consideration of whether additional capital is required over and above the Pillar 1 risk calculations. A firm's own internal models and assessments support this process

Pillar 3:

covers external communication of risk and capital information by banks as specified in the Basel framework to promote transparency and good risk management

Pillar 3 requires the disclosure of exposures and associated risk weighted assets for each risk type and approach to calculating capital requirements for Pillar 1.

Distinct regulatory capital approaches are followed for each of the following risk and exposure types:

- credit risk (including certain non-traded equity exposures)
- counterparty credit risk (CCR)
- credit valuation adjustment (CVA)
- market risk
- securitisations
- operational risk

Approaches to calculate capital requirements under CRR and CRD

Credit risk

The credit risk RWA calculation is based on an exposure at default (EAD) that typically reflects the value used for accounting purposes where assets are on balance sheet. In addition, where Barclays has the necessary regulatory permissions, it estimates Probability of Default (PD) and Loss Given Default (LGD).

- Standardised approach: assesses capital requirements using standard industry-wide risk weightings based on a detailed classification of asset types, external credit ratings and maturity. For off-balance sheet items a regulatory credit conversion factor is used to estimate the regulatory EAD
- Internal Ratings-Based approach (IRB): assesses capital requirements using the Group's specific data and internal models to calculate risk weightings. As such, internal calculations of PD and LGD are used to model risk weights, and internal calculations of credit conversion factors are used to estimate the regulatory EAD for off-balance sheet commitments

+ See page 47 **for more details on for credit risk**

Counterparty credit risk

CCR applies to derivative and securities financing transaction (SFT) exposures. It differs from credit risk in how the EAD is calculated. CCR arises where a counterparty default may lead to losses of an uncertain nature as the values of any resulting claims are market driven. This uncertainty is factored into the valuation of the Group's credit exposure arising from such transactions. The Group uses three methods under the regulatory framework to calculate CCR exposures:

- The Internal Model Method (IMM), subject to regulatory approval, which allows the use of internal models to calculate an effective expected positive exposure (EEPE), multiplied by a factor stipulated by the regulator called alpha. Barclays uses this approach for certain derivative and SFT exposures and its alpha is currently set at 1.4, which is the regulatory minimum
- The Standardised approach for counterparty credit risk (SA-CCR) used for derivatives, which is the sum of replacement cost at a netting set level plus an add-on (dependent on potential future exposure (PFE)) calculated for each asset class within a netting set, multiplied by a factor stipulated by the regulator called alpha, currently set at 1.4. Barclays uses SA-CCR for derivatives under the Leverage Ratio calculations, where model use is not permitted, as well as for a small subset of derivatives not covered by the IMM regulatory permission
- The Financial Collateral Comprehensive Method (FCCM), which is the net position of SFT exposures after the application of volatility adjustments prescribed under CRR

+ See page 85 **for more details on counterparty credit risk exposures.**

Application of the Basel framework (continued)

Credit valuation adjustment capital charge

The CVA is the capital charge accounting for potential marked to market (MTM) losses due to credit quality deterioration of a counterparty (that does not necessarily default). Two approaches can be used to calculate the adjustment:

- Standardised approach: this approach takes account of the external credit rating of each counterparty, EAD from the calculation of the CCR and the effective maturity
- Advanced approach: Barclays has approval to use the IMM approach for counterparty credit risk as well as permission to use a value at risk (VaR) model for the specific risk of debt instruments for the purposes of estimating potential MTM losses from credit quality deterioration. As a result of these regulatory approvals, Barclays uses the advanced approach for CVA wherever possible. This approach requires the calculation of the charge as; (a) a 10-day 99% VaR measure for the most recent one-year period; and (b) the same measure for a one year stressed period. The sum of the two VaR measures is multiplied with the relevant multiplication factor, based on the number of market risk back-testing exceptions for the most recent 250 business days, to yield the capital charge

+ See page 91 **for more details on CVA**

Market risk

RWA calculations for market risk assess the losses from market driven movements in the prices of financial assets and liabilities. Two approaches can be used:

- Standardised approach: a calculation is prescribed that depends on the type of contract, the net position at portfolio level, and other inputs that are relevant to the position. For instance, for equity positions a general market risk component captures changes in the market (systematic risk) while specific market risk is calculated based on features of the specific security (idiosyncratic risk)
- Model-based approach: subject to regulatory permission, the Group can use proprietary VaR models to calculate capital requirements. Under the CRR and CRD framework, stressed VaR, incremental risk charge and all-price risk models must also be used to ensure that sufficient levels of capital are maintained

+ See page 92 **for more details on capital requirements for market risk.**

Securitisation exposures

A separate regulatory framework exists for the calculation of securitisation risk weighted assets as per Regulation (EU) 2017/2402 (the Securitisation Regulation) and Regulation (EU) 2017/2401 (amendments to CRR). The following approaches are used for the calculation:

- Internal ratings based approach (Sec IRBA): uses modelled inputs where a bank has permission to use the IRB approach for the exposures being securitised; this can only be used if at least 95% of the assets would be in scope of the IRB regulatory approval
- Standardised approach (Sec SA): uses standardised inputs where a bank does not have permission to generate its own model parameters for the exposures being securitised, or where more than 5% of the asset pool is not covered by the bank's IRB regulatory approval
- External ratings based approach/internal assessment approach (Sec ERBA/Sec IAA): ERBA maps ratings from approved External Credit Assessment Institutions to capital requirements whereas IAA generates an internal estimate of an external rating and is then mapped to the ERBA risk weights; use of IAA is subject to regulatory approval
- 1250% if the above approaches are not applicable

In certain cases, for example if a bank has a senior exposure to a securitisation, it is possible to cap the capital requirements arising from any of the above approaches to that of the underlying pool.

+ See page 96 **for more details on securitisation exposures.**

Operational risk

Capital set aside for operational risk is deemed to cover the losses or costs resulting from human factors, inadequate or failed internal processes and systems or external events.

To assess capital requirements for operational risk, the standardised approach (TSA) is applied. Under TSA, banks are required to hold regulatory capital for operational risk equal to the annual average, calculated over a rolling three-year period, of the relevant income indicator (across all business lines), multiplied by a percentage factor by business lines as per the regulatory requirement.

+ See page 102 **for more details on capital requirements for operational risk.**

Large exposures

An institution shall not incur an exposure, post application of credit risk mitigation, to a client or group of connected clients that exceeds 25% of its eligible capital. If the client is an institution or a group of connected clients that has one or more institutions, the limit is 25% of its eligible capital or GBP130m whichever is higher. The eligible capital represents Tier 1 capital.

As at 31 December 2023, Barclays had not exceeded the large exposure limit set in CRR, and as such no capital charge applied.

Application of the Basel framework (continued)

Regulatory capital, leverage and MREL requirements

Minimum capital requirements

As at 31 December 2023, the Group's Overall Capital Requirement for CET1 was 12.0% comprising a 4.5% Pillar 1 minimum, a 1.5% Global Systemically Important Institution (G-SII) buffer, a 2.6% Pillar 2A requirement, a 2.5% capital conservation buffer (CCB) and a 0.9% countercyclical capital buffer (CCyB).

G-SIIs, such as the Group, are subject to a number of additional prudential requirements, including the requirement to hold additional capital buffers above the level required by Basel III standards. The level of the G-SII buffer is set by the Financial Stability Board (FSB) according to a bank's systemic importance and can range from 1% to 3.5% of RWAs. The G-SII buffer must be met with CET1. On 27 November 2023, the FSB published an update to its list of G-SIIs, maintaining the 1.5% G-SII buffer that applies to the Group.

The PRA requires UK firms to hold additional capital to cover risks which the PRA assesses are not fully captured by the Pillar 1 capital requirement. The PRA sets this additional capital requirement (Pillar 2A) at least annually, derived from each firm's individual capital guidance. The Pillar 2A requirement, based on a point in time assessment, has been set as a proportion of RWAs. The Group's updated Pillar 2A requirement is 4.6% of which at least 56.25% needs to be met with CET1 capital, equating to 2.6% of RWAs.

The Group is also subject to a 'combined buffer requirement' consisting of; (i) a CCB and (ii) a CCyB. The Group's CCyB is based on the buffer rate applicable for each jurisdiction in which the Group has exposures.

The PRA may also impose a confidential 'PRA buffer' to cover risks over a forward looking planning horizon, including with regard to firm-specific stresses or management and governance weaknesses. If the PRA buffer is imposed on a specific firm, it must be met separately to the combined buffer requirement, and must be met fully with CET1 capital.

The Group's CET1 target ratio of 13-14% takes into account headroom above requirements which includes a confidential institution-specific PRA buffer. The Group remains above its minimum capital regulatory requirements including the PRA buffer.

+ Please see page 364 **of the Annual Report for more information on prudential developments.**

Minimum leverage requirements

The Group is subject to a UK leverage ratio requirement of 4.1%. This comprises the 3.25% minimum requirement, a G-SII additional leverage ratio buffer (G-SII ALRB) of 0.53% and a countercyclical leverage ratio buffer (CCLB) of 0.3%.The Group is also required to disclose an average UK leverage ratio which is based on capital on the last day of each month in the quarter and an exposure measure for each day in the quarter.

Minimum requirements for own funds and eligible liabilities (MREL)

As at 31 December 2023, the Group was required to meet the higher of: (i) two times the sum of 8% Pillar 1 and 4.6% Pillar 2A equating to 25.2% of RWAs; and (ii) 6.75% of leverage exposures. In addition, the higher of regulatory capital and leverage buffers apply. CET1 capital cannot be counted towards both MREL and the buffers, meaning that the buffers, including the above mentioned confidential institution-specific PRA buffer, will effectively be applied above MREL requirements.

Application of the Basel framework (continued)

Scope of consolidation

In this report, Barclays PLC is presented on a consolidated basis. All disclosures are published for Barclays PLC for the year ended 31 December 2023. The consolidation basis used is the same as that used for reporting regulatory capital adequacy to the PRA. This scope of consolidation is similar to that used for the reporting of statutory accounts for most of the Group's activities, except for:

- subsidiaries engaged in non-financial activities such as insurance and securitisation vehicles that are fully consolidated for statutory purposes but are not consolidated for regulatory purposes (exposures to securitisation vehicles are subject to a specific capital treatment)
- subsidiaries where nature of consolidation is different between accounting and regulatory consolidation which are excluded for statutory purposes but included for regulatory purposes
- associates, joint ventures and participations, that are financial in nature and accounted for on an equity basis in the statutory accounts, are consolidated in proportion to Barclays PLC's participation for regulatory purposes
- entities that are not financial in nature, as well as private equity investments treated as associates, are accounted for on an equity basis in the statutory accounts, but are deducted from capital for regulatory purposes

+ See page 163 **for further details on Management of securitisation exposures and page 19 for list of entities that contribute the differences in the scopes of consolidation**

Significant subsidiaries

The Group's significant subsidiaries as at 31 December 2023 are Barclays Bank PLC, Barclays Bank UK PLC, Barclays Bank Ireland PLC and Barclays Capital Securities Limited. Pillar 3 disclosures are published in standalone documents for above entities as 'Barclays Bank PLC Pillar 3 Report', 'Barclays Bank UK PLC Pillar 3 Report', 'Barclays Bank Ireland PLC Pillar 3 Report' and 'Barclays Capital Securities Limited Pillar 3 Report' respectively.

Barclays Bank PLC

Barclays Bank PLC is a wholly-owned subsidiary of Barclays PLC and consists of Corporate and Investment Bank (CIB), Consumer, Cards and Payments (CC&P) and Head Office.

Barclays Bank PLC is currently regulated by the PRA on a solo-consolidated basis and comprises Barclays Bank PLC plus certain additional subsidiaries, subject to PRA approval. The disclosures provided in the document for Barclays Bank PLC are based on the above regulatory scope of consolidation. This differs from the accounting disclosures, where Barclays Bank PLC Group relates to Barclays Bank PLC and all its subsidiaries.

On 20 December 2022, the PRA granted permission for leverage minimum requirements to be set at the sub-consolidated level for Barclays Bank PLC effective from 1 January 2023 replacing the individual requirement that was due to become effective at that time. As a result, the Barclays Bank PLC leverage disclosures are presented on both the Barclays Bank PLC solo-consolidated and Barclays Bank PLC sub-consolidated basis.

Refer to the 'Barclays Bank PLC Pillar 3 Report' for further information.

Barclays Bank UK PLC

Barclays Bank UK PLC is the wholly-owned ring-fenced bank of Barclays PLC. The consolidation of the parent entity, Barclays Bank UK PLC and its subsidiaries, is referred to as Barclays Bank UK Group and consists of Personal Banking, Business Banking and Barclaycard Consumer UK businesses.

From 1 January 2023 as mandated by the amended SS45/15, Barclays Bank UK PLC became subject to UK Leverage Ratio disclosure requirements on an individual basis in addition to the existing requirements in place for Barclays Bank UK Group. As a result, the leverage disclosures are presented on both the Barclays Bank UK PLC and Barclays Bank UK Group consolidated basis.

Refer to the 'Barclays Bank UK PLC Pillar 3 Report' for further information.

Barclays Bank Ireland PLC

Barclays Bank Ireland PLC (also referred to as Barclays Europe) is a wholly owned subsidiary of Barclays Bank PLC. Barclays Bank Ireland PLC is licensed as a credit institution by the Central Bank of Ireland (CBI) and is designated as a significant institution, directly supervised via the Single Supervisory Mechanism (SSM) of the European Central Bank (ECB). Refer to the 'Barclays Bank Ireland PLC Pillar 3 Report' for further information.

Barclays Capital Securities Limited

Barclays Capital Securities Limited is a wholly owned subsidiary of Barclays Bank PLC and is a Private Limited Company domiciled and incorporated in the United Kingdom. It is a PRA designated investment firm. Refer to the 'Barclays Capital Securities Limited Pillar 3 Report' for further information.

Scope of permission for calculation approaches

Barclays seeks permission from its regulators to use modelled approaches where possible, to enable risk differentiation.

Barclays PLC has regulatory approval to use its internal credit models in the calculation of the majority of its credit risk and counterparty credit risk exposures. The following table summarises the principal portfolios within Barclays that use the standardised and advanced IRB approaches as at 31 December 2023.

Table 1: The scope of the STD and AIRB approaches for credit and counterparty credit risk excluding CVA

As at 31 December 2023	Credit risk (see Table 10)	Counterparty credit risk excl. CVA (see Tables 10)		
	RWA	RWA		
Business	£m	£m	Advanced Internal Ratings Based (AIRB) approach	Standardised (STD) approach
Barclays UK	61,233	178	• UK managed retail and wholesale portfolios • UK cards	• Minor legacy retail and wholesale portfolios • Further Education and Local Authority portfolios • High quality liquidity pool assets (HQLA) • Barclays Partner Finance • UK Wealth Portfolio
Barclays International	139,547	41,204	• UK and Ireland Corporate portfolio • Non-EEA HQLA • Most Investment Bank portfolios • Germany retail credit cards	• HQLA • Mainly Non-UK managed retail (including Private Bank) and wholesale portfolios (including legacy) • Further Education and Local Authority portfolios • US retail credit cards, joint card issuance, partner finance, secure lending, commercial payment and any recent portfolio acquisitions • European Corporate Portfolio previously in the Corporate Bank • Certain portfolios typically with low or no defaults, or insufficient historical data
Head Office	10,844	—	• Small number of portfolios (including Italy Home Loans)	• Small number of portfolios (including Equity exposures)
Group Total	211,624	41,382		

Barclays' AIRB roll-out plans are discussed with regulators and updated based on an agreed schedule.

Scope of permission for calculation approaches (continued)

Table 2: Summary of the scope of application of regulatory methodologies for CVA, market and operational risk

As at 31 December 2023		
Risk Type	Risk weighted assets £m	Scope
Credit value adjustment	**3,392**	CVA for all contracts in scope as defined by article 382 of the CRR. Barclays has permission to use an internal model for the specific risk of debt instruments and therefore is allowed to use the advanced method for CVA for such instruments where applicable. The standardised method for CVA is used otherwise.
Market risk	**40,761**	The risk of loss from changes in the prices of assets in the trading book are captured by a combined RWA calculation for general and specific market risks. The regulatory permission for Barclays to use models considers risk categories and legal entities; see table 11 on page 28 for capital requirements related to each approach and risk category. See page 154 for more information.
		Barclays has regulatory approval for VaR modelling for general market risk, which is designed to capture the risk of loss arising from changes in market interest rates, along with the risk of losses arising from changes in foreign exchange, commodities and equity market value.
		The capital charge for specific market risk is designed to protect against losses from adverse movements in the price of an individual security owing to factors related to the individual issuer. Barclays has permission to model specific market risk, including credit spread, migration, and default risks, for certain legal entities and product types. Where the Group does not have permission to use a model (notably in Barclays Capital Inc), the standardised approach is applied.
Operational risk	**45,558**	The Group applies TSA for operational risk regulatory capital purposes.

Linkage between financial statements and regulatory risk

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

This table outlines the differences in the basis of consolidation for accounting and regulatory purposes. It provides an allocation of the balance sheet line items reported under the scope of regulatory consolidation between the different regulatory risk frameworks. Information regarding the market risk valuation methodologies, independent price verifications process and procedures for valuation adjustments or reserves can be found in the Management of market risk section from page 153.

			Carrying value of items				
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation[a]	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework[b]	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from own funds
As at 31 December 2023	£m	£m	£m	£m	£m	£m	£m
Assets							
Cash and balances at central banks	224,634	224,634	224,634	—	—	—	—
Cash collateral and settlement balances	108,889	108,889	15,471	51,370	—	—	42,048
Loans and advances at amortised cost	399,496	390,630	338,384	—	52,246	—	—
Reverse repurchase agreements and other similar secured lending at amortised cost	2,594	2,594	—	2,391	203	—	—
Trading portfolio assets	174,605	175,557	7,170	—	—	168,387	—
Financial assets at fair value through the income statement	206,651	206,284	10,811	183,103	5,201	190,272	—
Derivative financial instruments	256,836	256,108	—	255,987	121	250,755	—
Financial assets at fair value through other comprehensive income	71,836	71,896	71,136	—	760	—	—
Investments in subsidiaries, associates and joint ventures	879	25	25	—	—	—	—
Goodwill and intangible assets	7,794	7,821	—	—	—	—	7,821
Property, plant and equipment	3,417	3,419	3,419	—	—	—	—
Current tax assets	121	121	121	—	—	—	—
Deferred tax assets	5,960	5,959	5,959	—	—	—	—
Retirement benefit assets	3,667	3,667	—	—	—	—	3,667
Other assets	6,191	6,868	6,868	—	—	—	—
Assets included in disposal groups classified as held for sale	3,917	3,917	3,917	—	—	—	—
Total assets	1,477,487	1,468,389	687,915	492,851	58,531	609,414	53,536
Liabilities[c]							
Deposits at amortised cost	538,789	538,789	—	—	—	—	538,789
Cash collateral and settlement balances	94,084	93,884	—	69,760	—	—	24,124
Repurchase agreements and other similar	41,601	41,601	—	18,913	—	—	22,688
Debt securities in issue	96,825	85,227	—	—	—	—	85,227
Subordinated liabilities	10,494	10,494	—	—	—	—	10,494
Trading portfolio liabilities	58,669	59,111	—	—	—	58,535	576
Financial liabilities designated at fair value	297,539	297,189	—	202,828	—	291,092	6,097
Derivative financial instruments	250,044	249,468	—	248,725	743	245,111	—
Current tax liabilities	529	518	—	—	—	—	518
Deferred tax liabilities	22	22	—	—	—	—	22
Retirement benefit liabilities	266	266	—	—	—	—	266
Other liabilities	12,013	15,285	—	—	—	—	15,285
Provisions	1,584	1,619	—	—	—	—	1,619
Liabilities included in disposal groups classified as held for sale	3,164	3,164	—	—	—	—	3,164
Total Liabilities	1,405,623	1,396,637	—	540,226	743	594,738	708,869

Notes

a The balances shown in column 'Carrying values under the scope of regulatory consolidation' do not equal the sum of those in the columns relating to the regulatory framework, as certain assets can be in scope for more than one regulatory framework. As such, assets included in line items for 'Financial assets at fair value through the income statement', and 'Derivative financial instruments', can be subject to credit risk, counterparty credit risk and market risk.

b The column 'Subject to securitisation framework' includes non-trading book drawn positions for traditional and synthetic. Trading book securitisation positions are included in 'Subject to the market risk framework'.

c For liabilities, balances shown in column 'Not subject to capital requirements or subject to deduction from capital' are residual amount so that 'Carrying values under the scope of regulatory consolidation' equal to the sum of those in the columns relating to the regulatory framework.

Linkage between financial statements and regulatory risk (continued)

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

This table provides a reconciliation between assets carrying values under the regulatory scope of consolidation as per table 3 and the exposures used for regulatory purposes, split as per the regulatory risk framework.

Off-balance sheet amounts: Under the credit risk framework, these balances principally consist of undrawn credit facilities before application of credit conversion factor (CCF). Under the counterparty credit risk framework, the off-balance sheet items principally consist of the exposure due to collateral posted in SFTs

Difference in netting rules: This reflects the additional benefits allowed per regulatory rules over and above the netting permitted under International Financial Reporting Standards (IFRS)

Differences due to consideration of provisions: The carrying value of assets is net of impairment. The regulatory exposure calculated under advanced IRB approach adds back the impairment

Differences due to credit risk mitigation (CRM): Impact of CRM on the regulatory exposure value,such as collateralisation and guarantees

Differences due to credit conversion factor: Impact of the CCF on the off-balance sheet exposure

Differences due to securitisation with risk transfer: This reflects the exposures of synthetic securitisation trades which are derecognised as per accounting standard

Other differences: This reflects the difference between assets carrying values as defined per IFRS and the values defined per regulatory reporting purposes

Differences due to regulatory add-ons: this reflects regulatory add-ons relevant to the standardised approach to CCR, such as PFE add on and FCCM haircuts

Difference between input balance and modelled regulatory output: This reflects the modelling of exposures, such as the use of the IMM for CCR

			Items subject to			
As at 31 December 2023		Total	Credit risk framework	Securitisation framework	CCR framework	Market risk framework
1	**Assets carrying value amount under the scope of regulatory consolidation (as per template LI1)**	**1,239,297**	**687,915**	**58,531**	**492,851**	**609,414**
2	**Liabilities carrying value amount under the regulatory scope of consolidation (as per template LI1)**	**(540,969)**	**—**	**(743)**	**(540,226)**	**(594,738)**
3	**Total net amount under the regulatory scope of consolidation**	**698,328**	**687,915**	**57,788**	**(47,375)**	**14,676**
4	**Off-balance sheet amounts**	**1,457,644**	**347,048**	**9,663**	**1,100,933**	
5	Differences in valuations	**—**	**—**	**—**	**—**	
6	Differences due to different netting rules, other than those already included in row 2	**(987,959)**	**—**	**—**	**(987,959)**	
7	Differences due to consideration of provisions	**2,116**	**2,116**	**—**	**—**	
8	Differences due to the use of credit risk mitigation techniques (CRMs)	**(21,439)**	**(20,827)**	**(612)**	**—**	
9	Differences due to credit conversion factors	**(208,231)**	**(208,231)**	**—**	**—**	
10	Differences due to Securitisation with risk transfer	**28,662**	**—**	**28,662**	**—**	
11	Other differences	**(469)**	**(1,779)**	**1,363**	**(53)**	
11a	Differences due to Regulatory add-ons	**17,467**	**—**	**(106)**	**17,573**	
11b	Differences between input balance and modelled regulatory output	**68,293**	**1,158**	**390**	**66,745**	
12	**Exposure amounts considered for regulatory purposes**	**1,054,412**	**807,400**	**97,148**	**149,864**	

Linkage between financial statements and regulatory risk (continued)

Table 5: LI3 Outline of the differences in the scopes of consolidation (entity by entity)

		Method of regulatory consolidation					
Name of the entity	Method of accounting consolidation	Full consolidation	Proportional consolidation	Equity Method	Neither consolidated nor deducted[a]	Deducted	Description of the entity
Barclays Insurance Services Company Limited	Fully consolidated				Y		Insurance and reinsurance activities
Barclays Insurance Guernsey PCC Limited	Fully consolidated				Y		Insurance and reinsurance activities
Salisbury Receivables Company LLC	Fully consolidated				Y		Financial service activities, except insurance and pension funding
Barclays Insurance US Inc.	Fully consolidated				Y		Insurance and reinsurance activities
Sheffield Receivables Company LLC	Fully consolidated				Y		Financial service activities, except insurance and pension funding
Sunderland Receivables Company LLC	Fully consolidated				Y		Financial service activities, except insurance and pension funding
Sunderland Receivables SA	Fully consolidated				Y		Financial service activities, except insurance and pension funding
EnterCard Group AB	Equity		Y				Financial service activities, except insurance and pension funding
BGF Group PLC	Equity		Y				Financial service activities, except insurance and pension funding
Palomino Limited	Not consolidated	Y					Financial service activities, except insurance and pension funding

Note

a Equity investment into these entities are risk weighted or deducted from capital subject to threshold.

Analysis of treasury and capital risk

This section details Barclays' capital position providing information on capital resources, requirements, leverage and liquidity.

Key Metrics in 2023

Common Equity Tier 1 ratio

13.8%

(see page 21)

Own funds and eligible liabilities ratio as a percentage of RWAs

33.6%

(see page 34)

UK leverage ratio

5.2%

(see page 22)

Liquidity Coverage ratio (LCR)

161%

(see page 39)

Net stable funding ratio (NSFR)

138%

(see page 41)

Analysis of treasury and capital risk (continued)

Table 6: KM1 - Key metrics - Part 1

This table shows key regulatory metrics and ratios as well as related components such as own funds, RWAs, capital ratios, additional requirements based on Supervisory Review and Evaluation Process (SREP), capital buffer requirements, leverage ratio, LCR and NSFR.

KM1 ref		As at 31.12.23 £m	As at 30.09.23 £m	As at 30.06.23 £m	As at 31.03.23 £m	As at 31.12.22 £m
	Available own funds (amounts)					
1	Common Equity Tier 1 (CET1) capital[a]	**47,304**	47,958	46,640	45,985	46,878
1a	Fully loaded common Equity Tier 1 (CET1) capital[b]	**47,016**	47,668	46,434	45,740	46,178
2	Tier 1 capital[a]	**60,507**	59,755	60,339	59,709	60,102
2a	Fully loaded tier 1 capital[b]	**60,219**	59,465	60,133	59,464	59,402
3	Total capital[a,c]	**68,882**	68,536	69,231	68,214	70,072
3a	Fully loaded total capital[b,d]	**68,229**	67,781	68,548	67,232	68,653
	Risk-weighted exposure amounts					
4	Total risk-weighted exposure amount[a]	**342,717**	341,868	336,946	338,448	336,518
4a	Fully loaded total risk-weighted exposure amount[b]	**342,650**	341,753	336,868	338,380	336,345
	Capital ratios (as a percentage of risk-weighted exposure amount)					
5	Common Equity Tier 1 ratio (%)[a]	**13.8%**	14.0%	13.8%	13.6%	13.9%
5a	Fully loaded common Equity Tier 1 ratio (%)[b]	**13.7%**	13.9%	13.8%	13.5%	13.7%
6	Tier 1 ratio (%)[a]	**17.7%**	17.5%	17.9%	17.6%	17.9%
6a	Fully loaded tier 1 ratio (%)[b]	**17.6%**	17.4%	17.9%	17.6%	17.7%
7	Total capital ratio (%)[a,c]	**20.1%**	20.0%	20.5%	20.2%	20.8%
7a	Fully loaded total capital ratio (%)[b,d]	**19.9%**	19.8%	20.3%	19.9%	20.4%
	Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount)					
UK 7a	Additional CET1 SREP requirements (%)	**2.6%**	2.4%	2.4%	2.4%	2.4 %
UK 7b	Additional AT1 SREP requirements (%)	**0.9%**	0.8%	0.8%	0.8%	0.8 %
UK 7c	Additional T2 SREP requirements (%)	**1.1%**	1.1%	1.1%	1.1%	1.1 %
UK 7d	Total SREP own funds requirements (%)	**12.6%**	12.3%	12.3%	12.3%	12.3 %
	Combined buffer requirement (as a percentage of risk-weighted exposure amount)					
8	Capital conservation buffer (%)	**2.5%**	2.5%	2.5%	2.5%	2.5%
9	Institution specific countercyclical capital buffer (%)	**0.9%**	0.9%	0.5%	0.5%	0.4%
10	Global Systemically Important Institution buffer (%)	**1.5%**	1.5%	1.5%	1.5%	1.5%
11	Combined buffer requirement (%)	**4.9%**	4.9%	4.5%	4.5%	4.4%
UK 11a	Overall capital requirements (%)	**17.5%**	17.2%	16.8%	16.7%	16.7%
12	CET1 available after meeting the total SREP own funds requirements (%)	**6.7%**	7.1%	6.9%	6.7%	7.0%

Notes

a Transitional capital and RWAs are calculated applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.

b Fully loaded capital and RWAs are calculated without applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.

c Total transitional capital is calculated applying the grandfathering of CRR II non-compliant capital instruments included within Tier 2 capital.

d Total fully loaded capital is calculated without applying the grandfathering of CRR II non-compliant capital instruments included within Tier 2 capital.

The CET1 ratio decreased to 13.8% (December 2022: 13.9%) as RWAs increased by £6.2bn to £342.7bn partially offset by an increase in CET1 capital of £0.4bn to £47.3bn:

- c.125bps increase from 2023 attributable profit, including the c.25bps negative impact of structural cost actions, of which c.10bps are offset in other capital movements
- c.70bps decrease driven by returns to shareholders including the 8p per share total dividend and £1.25bn of share buybacks announced with FY22 and H123 results
- c.10bps decrease from other capital movements, including the impact of regulatory change on 1 January 2023 relating to IFRS 9 transitional relief, the impact of the KMC acquisition, and movements in other regulatory capital deductions
- c.50bps decrease as a result of a £13.2bn increase in RWAs excluding the impact of foreign exchange movements, primarily driven by higher CIB and CC&P RWAs
- An £8.2bn decrease in RWAs as a result of foreign exchange movements was offset by a £1.1bn decrease in CET1 capital due to a decrease in the currency translation reserve

Analysis of treasury and capital risk (continued)

Table 6: KM1 - Key metrics - Part 2

KM1 Ref		As at 31.12.23 £m	As at 30.09.23 £m	As at 30.06.23 £m	As at 31.03.23 £m	As at 31.12.22 £m
	Leverage ratio					
13	Total exposure measure excluding claims on central banks[a]	**1,168,275**	1,202,417	1,183,703	1,168,899	1,129,973
14	Leverage ratio excluding claims on central banks (%)[a,d]	**5.2%**	5.0%	5.1%	5.1%	5.3%
	Additional leverage ratio disclosure requirements					
UK 14a	Fully loaded ECL accounting model leverage ratio excluding claims on central banks (%)[b]	**5.2%**	4.9%	5.1%	5.1%	5.3%
UK 14b	Leverage ratio including claims on central banks (%)[a]	**4.3%**	4.0%	4.2%	4.1%	4.3%
UK 14c	Average leverage ratio excluding claims on central banks (%)[a,c]	**4.8%**	4.6%	4.8%	4.8%	4.8%
UK 14d	Average leverage ratio including claims on central banks (%)[a,c]	**4.0%**	3.9%	4.0%	3.9%	3.9%
UK 14e	Countercyclical leverage ratio buffer (%)	**0.3%**	0.3%	0.2%	0.2%	0.2%
	Liquidity Coverage Ratio					
15	Total high-quality liquid assets (HQLA) (Weighted value)[e]	**310,328**	313,477	319,310	322,981	320,450
UK 16a	Cash outflows - Total weighted value	**283,268**	284,150	286,577	287,558	283,445
UK 16b	Cash inflows - Total weighted value	**90,627**	86,316	83,251	81,048	77,389
16	Total net cash outflows (adjusted value)[e]	**192,641**	197,835	203,326	206,510	206,056
17	Liquidity coverage ratio (%)[f]	**161%**	159%	157%	157%	156%
	Net Stable Funding Ratio[g]					
18	Total available stable funding	**606,785**	599,820	596,469	591,303	576,491
19	Total required stable funding	**439,651**	434,055	429,846	424,617	420,889
20	NSFR ratio (%)	**138%**	138%	139%	139%	137%

Notes

a Transitional UK leverage ratios are calculated applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.

b Fully loaded UK leverage ratio is calculated without applying the IFRS9 transitional arrangements of the CRR as amended by CRR II.

c Average UK leverage ratio uses capital based on the last day of each month in the quarter and an exposure measure for each day in the quarter.

d Although the leverage ratio is expressed in terms of T1 capital, the leverage ratio buffers and 75% of the minimum requirement must be covered solely with CET1 capital. The CET1 capital held against the 0.53% G-SII ALRB was £6.1bn and against the 0.3% CCLB was £3.5bn.

e Prior period comparatives have been updated to reflect the average measures as amended by CRR II.

f LCR computed as a trailing average of 12 month-end observations to the reporting date.

g NSFR is computed as a trailing average of the last four spot quarter end positions. No prior comparative available.

The UK leverage ratio decreased to 5.2% (December 2022: 5.3%) primarily due to a £38.3bn increase in leverage exposure to £1,168.3bn, largely driven by an increase in trading portfolio assets within Global Markets.

The average LCR for the 12 months to 31 December 2023 increased to 161% (December 2022:156%), with average HQLA decreasing by £10bn and average net cash outflows decreasing by £13bn.

As at 31 December 2023, the trailing average NSFR for the last four spot quarter end positions was 138% (December 2022: 137%), equivalent to a surplus of £167bn (December 2022: 155bn) above the 100% regulatory requirement.

Analysis of treasury and capital risk (continued)

Table 7: CC1 – Composition of regulatory own funds

This table shows the components of regulatory capital presented on both a transitional and fully loaded basis.

			As at 31.12.23	As at 31.12.23	As at 31.12.22	As at 31.12.22
			Transitional Position	Fully Loaded	Transitional Position	Fully Loaded
		Ref†	£m	£m	£m	£m
	Common Equity Tier 1 (CET1) capital: instruments and reserves					
1	Capital instruments and the related share premium accounts	a	**4,288**	**4,288**	4,373	4,373
	of which called up share capital and share premium	a	***4,288***	***4,288***	*4,373*	*4,373*
2	Retained earnings[a]	b	**52,935**	**52,935**	50,436	50,436
3	Accumulated other comprehensive income (and other reserves)[a]	b, c	**(3,152)**	**(3,152)**	(4,421)	(4,421)
UK-5a	Independently reviewed interim profits net of any foreseeable charge or dividend	b	**3,393**	**3,393**	4,200	4,200
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**		**57,464**	**57,464**	54,588	54,588
	Common Equity Tier 1 (CET1) capital: regulatory adjustments					
7	Additional value adjustments		**(1,901)**	**(1,901)**	(1,726)	(1,726)
8	Intangible assets (net of related tax liability)[b]	d, e, f, g	**(7,790)**	**(7,790)**	(8,224)	(8,224)
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) CRR are met)	h	**(1,630)**	**(1,630)**	(1,500)	(1,500)
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	i	**3,707**	**3,707**	7,237	7,237
12	Negative amounts resulting from the calculation of expected loss amounts		**(296)**	**(296)**	(119)	(119)
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit	j	**136**	**136**	(620)	(620)
15	Defined-benefit pension fund assets[b]	k, g	**(2,654)**	**(2,654)**	(3,430)	(3,430)
16	Direct, indirect and synthetic holdings by an institution of own CET1 instruments		**(20)**	**(20)**	(20)	(20)
27a	Other regulatory adjustments to CET1 capital (including IFRS 9 transitional adjustments when relevant)[c]		**288**	**—**	692	(8)
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**		**(10,160)**	**(10,448)**	(7,710)	(8,410)
29	**Common Equity Tier 1 (CET1) capital**		**47,304**	**47,016**	46,878	46,178
	Additional Tier 1 (AT1) capital: instruments					
30	Capital instruments and the related share premium accounts	l	**13,263**	**13,263**	13,284	13,284
31	*of which: classified as equity under applicable accounting standards*	l	***13,263***	***13,263***	*13,284*	*13,284*
36	Additional Tier 1 (AT1) capital before regulatory adjustments		**13,263**	**13,263**	13,284	13,284
	Additional Tier 1 (AT1) capital: regulatory adjustments					
37	Direct, indirect and synthetic holdings by an institution of own AT1 instruments		**(60)**	**(60)**	(60)	(60)
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**		**(60)**	**(60)**	(60)	(60)
44	**Additional Tier 1 (AT1) capital**		**13,203**	**13,203**	13,224	13,224
45	**Tier 1 capital (T1 = CET1 + AT1)**		**60,507**	**60,219**	60,102	59,402
	Tier 2 (T2) capital: instruments					
46	Capital instruments and the related share premium accounts	m	**7,966**	**7,966**	9,000	9,000
UK-47b	Amount of qualifying items referred to in Article 494b (2) CRR subject to phase out from T2[d]		**—**	**—**	—	—
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties[d]	m,n	**569**	**205**	1,095	343
50	Credit risk adjustments		**—**	**—**	35	68
51	**Tier 2 (T2) capital before regulatory adjustments**		**8,535**	**8,171**	10,130	9,411

Notes

† The references (a) – (n) identify balance sheet components in Table 8: CC2 – Reconciliation of regulatory capital to balance sheet on page 25 which are used in the calculation of regulatory capital

a Comparatives have been restated to include the pension remeasurement reserve within accumulated other comprehensive income (row 3). The reserve was previously disclosed in retained earnings (row 2).

b Deferred tax liabilities on intangible assets and pension fund assets are included as either a negative component of the deferred tax asset or a deferred tax liability on the balance sheet depending on the net deferred tax position of the bank at the time of reporting.

c Other regulatory adjustments to CET1 capital includes IFRS 9 transitional adjustments of which modified £288m.

d Row 48 includes £569m of T2 instruments issued by subsidiaries and subject to phase out from T2 under Article 494b(2). They are not reported in row UK-47b to avoid double counting with row 48.

Analysis of treasury and capital risk (continued)

Table 7: CC1 – Composition of regulatory own funds – continued

			As at 31.12.23	As at 31.12.23	As at 31.12.22	As at 31.12.22
			Transitional Position	Fully Loaded	Transitional Position	Fully Loaded
		Ref†	£m	£m	£m	£m
	Tier 2 (T2) capital: regulatory adjustments					
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans		**(160)**	**(160)**	(160)	(160)
57	**Total regulatory adjustments to Tier 2 (T2) capital**		**(160)**	**(160)**	(160)	(160)
58	**Tier 2 (T2) capital**		**8,375**	**8,011**	9,970	9,251
59	**Total capital (TC = T1 + T2)**		**68,882**	**68,230**	70,072	68,653
60	**Total Risk exposure amount**		**342,717**	**342,650**	336,518	336,345
	Capital ratios and buffers					
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)		**13.8%**	**13.7%**	13.9%	13.7%
62	Tier 1 (as a percentage of total risk exposure amount)		**17.7%**	**17.6%**	17.9%	17.7%
63	Total capital (as a percentage of total risk exposure amount)		**20.1%**	**19.9%**	20.8%	20.4%
64	Institution CET1 overall capital requirement (CET1 requirement in accordance with Article 92 (1) CRR, plus additional CET1 requirement which the institution is required to hold in accordance with point (a) of Article 104(1) CRD, plus combined buffer requirement in accordance with Article 128(6) CRD) expressed as a percentage of risk		**12.0%**	**12.0%**	11.3%	11.3%
65	*of which: capital conservation buffer requirement*		***2.5%***	***2.5%***	*2.5%*	*2.5%*
66	*of which: countercyclical buffer requirement*		***0.9%***	***0.9%***	*0.4%*	*0.4%*
UK-67a	*of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer*		***1.5%***	***1.5%***	*1.5%*	*1.5%*
68	**Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)**		**6.7%**	**6.6%**	7.0%	6.8%
	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 significant investment in those entities (amount below 10% threshold and net of eligible short positions)		**4,730**	**4,702**	2,187	2,187
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)		**263**	**263**	136	136
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) CRR are met)		**3,621**	**3,709**	3,835	4,035
	Applicable caps on the inclusions of provisions in Tier 2					
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)		**—**	**—**	35	68
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based		**848**	**848**	912	915

Analysis of treasury and capital risk (continued)

Table 8: CC2 – Reconciliation of regulatory own funds to balance sheet in the audited financial statements

These tables show the reconciliation between the balance sheet prepared for statutory and regulatory scope of consolidation. The amount shown under the regulatory scope of consolidation is not a RWA measure; it is based on an accounting measure and cannot be directly reconciled to other tables in this report.

			Balance sheet as in published financial statements	Under regulatory scope of consolidation
As at 31 December 2023		**Ref†**	**£m**	**£m**
Assets				
1	Cash and balances at central banks		**224,634**	**224,634**
2	Cash collateral and settlement balances		**108,889**	**108,889**
3	Loans and advances at amortised cost to banks		**9,459**	**9,585**
4	Loans and advances at amortised cost to customers		**333,288**	**324,423**
5	Debt securities at amortised cost		**56,749**	**56,622**
6	Reverse repurchase agreements and other similar secured lending at amortised cost		**2,594**	**2,594**
7	Trading portfolio assets		**174,605**	**175,557**
8	Financial assets at fair value through the income statement		**206,651**	**206,285**
9	Derivative financial instruments		**256,836**	**256,109**
10	Financial assets at fair value through other comprehensive income		**71,836**	**71,896**
11	Investments in subsidiaries, associates and joint ventures	e	**879**	**25**
12	Goodwill and intangible assets		**7,794**	**7,821**
13	*- Of which: goodwill*	d	***4,178***	***4,204***
14	*- Of which: other intangibles (excluding MSRs)*	f	***3,616***	***3,617***
15	Property, plant and equipment		**3,417**	**3,419**
16	Current tax assets		**121**	**121**
17	Deferred tax assets	g, h	**5,960**	**5,959**
18	Retirement benefit assets	k	**3,667**	**3,667**
19	Assets included in disposal groups classified as held for sale		**3,916**	**3,916**
20	Other assets		**6,192**	**6,867**
21	**Total assets**		**1,477,487**	**1,468,389**
Liabilities				
1	Deposits at amortised cost from banks		**14,472**	**14,472**
2	Deposits at amortised cost from customers		**524,317**	**524,317**
3	Cash collateral and settlement balances		**94,084**	**93,884**
4	Repurchase agreements and other similar secured borrowing at amortised cost		**41,601**	**41,601**
5	Debt securities in issue		**96,825**	**85,226**
6	Subordinated liabilities	m	**10,494**	**10,494**
7	Trading portfolio liabilities		**58,669**	**59,111**
8	Financial liabilities designated at fair value		**297,539**	**297,189**
9	Derivative financial instruments		**250,044**	**249,467**
10	Current tax liabilities		**529**	**518**
11	Deferred tax liabilities	g	**22**	**22**
12	Retirement benefit liabilities		**266**	**266**
13	Provisions		**1,584**	**1,619**
14	Liabilities included in disposal groups classified as held for sale		**3,164**	**3,164**
15	Other liabilities		**12,013**	**15,287**
16	**Total liabilities**		**1,405,623**	**1,396,637**
Equity				
1	Called up share capital and share premium		**4,288**	**4,288**
2	*- Of which: amount eligible for CET1*	a	***4,288***	***4,288***
3	Other equity instruments	l	**13,259**	**13,259**
4	Other reserves	c, i, j	**(77)**	**(49)**
5	Retained earnings	b	**53,734**	**53,594**
6	**Total equity excluding non-controlling interests**		**71,204**	**71,092**
7	Non-controlling interests	n	**660**	**660**
8	**Total equity**		**71,864**	**71,752**
9	**Total liabilities and equity**		**1,477,487**	**1,468,389**

Note
† The references (a) – (n) identify balance sheet components that are used in the calculation of regulatory capital in Table 7: Composition of regulatory capital on page 23.

Analysis of treasury and capital risk (continued)

Table 9: IFRS 9[a] – Comparison of institution's own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs

	Barclays Group	As at 31.12.23 £m	As at 30.09.23 £m	As at 30.06.23 £m	As at 31.03.23 £m	As at 31.12.22 £m
	Available capital (amounts)					
1	CET1 capital[b]	**47,304**	47,958	46,640	45,985	46,878
2	CET1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**47,016**	47,668	46,434	45,740	46,178
3	Tier 1 capital[b]	**60,507**	59,755	60,339	59,709	60,102
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**60,219**	59,465	60,133	59,464	59,402
5	Total capital[b,c]	**68,882**	68,536	69,231	68,214	70,072
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**68,594**	68,246	69,025	67,969	69,405
	Risk-weighted assets (amounts)					
7	Total risk-weighted assets[b]	**342,717**	341,868	336,946	338,448	336,518
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**342,650**	341,753	336,868	338,380	336,345
	Capital ratios					
9	CET1 (as a percentage of risk exposure amount)[b]	**13.8%**	14.0%	13.8%	13.6%	13.9%
10	CET1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**13.7%**	13.9%	13.8%	13.5%	13.7%
11	Tier 1 (as a percentage of risk exposure amount)[b]	**17.7%**	17.5%	17.9%	17.6%	17.9%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**17.6%**	17.4%	17.9%	17.6%	17.7%
13	Total capital (as a percentage of risk exposure amount)[b,c]	**20.1%**	20.0%	20.5%	20.2%	20.8%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**20.0%**	20.0%	20.5%	20.1%	20.6%
	Leverage ratio					
15	Leverage ratio total exposure measure	**1,168,275**	1,202,417	1,183,703	1,168,899	1,129,973
16	Leverage ratio[b]	**5.2%**	5.0%	5.1%	5.1%	5.3%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	**5.2%**	4.9%	5.1%	5.1%	5.3%

Notes

a From 1 January 2018, Barclays Group elected to apply the IFRS 9 transitional arrangements of the CRR. The transitional relief on the 'day 1' impact on adoption of IFRS 9 and on increases in non-defaulted provisions between 'day 1' and 31 December 2019 was phased out over a 5 year period ending on 1 January 2023. On 27 June 2020, CRR was amended to extend the transitional period by two years and to introduce a new modified calculation. The transitional relief for increases in non-defaulted provisions between 1 January 2020 and the reporting date is also phased out over a 5 year period with 75% applicable for 2022; 50% for 2023; 25% for 2024 and with no transitional relief from 2025.

b Transitional CET1 capital, RWAs and leverage ratio are calculated applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.

c Total capital is calculated applying the grandfathering of CRR II non-compliant capital instruments included within Tier 2 capital.

Analysis of treasury and capital risk (continued)

Table 10: RWAs by risk type and business

This table shows RWAs by business and risk type.

	Credit risk[a]		Counterparty credit risk				Market risk			
	Std	AIRB	Std	AIRB	Settlement risk	CVA	Std	IMA	Operational risk	Total RWAs
As at 31 December 2023	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Barclays UK	**10,472**	**50,761**	**178**	**—**	**—**	**94**	**274**	**—**	**11,715**	**73,494**
Corporate and Investment Bank	***40,315***	***65,499***	***18,775***	***22,033***	***159***	***3,260***	***14,625***	***25,222***	***26,887***	***216,775***
Consumer, Cards and Payments	***28,218***	***5,515***	***182***	***55***	***—***	***38***	***2***	***638***	***7,631***	***42,279***
Barclays International	**68,533**	**71,014**	**18,957**	**22,088**	**159**	**3,298**	**14,627**	**25,860**	**34,518**	**259,054**
Head Office	**3,881**	**6,963**	**—**	**—**	**—**	**—**	**—**	**—**	**(675)**	**10,169**
Barclays Group	**82,886**	**128,738**	**19,135**	**22,088**	**159**	**3,392**	**14,901**	**25,860**	**45,558**	**342,717**
As at 31 December 2022										
Barclays UK	6,836	54,752	167	—	—	72	233	—	11,023	73,083
Corporate and Investment Bank	*35,738*	*75,413*	*16,814*	*21,449*	*80*	*3,093*	*13,716*	*22,497*	*27,064*	*215,864*
Consumer, Cards and Payments	*27,882*	*3,773*	*214*	*46*	*—*	*61*	*—*	*388*	*6,559*	*38,923*
Barclays International	63,620	79,186	17,028	21,495	80	3,154	13,716	22,885	33,623	254,787
Head Office	2,636	6,843	—	—	—	—	—	—	(831)	8,648
Barclays Group	73,092	140,781	17,195	21,495	80	3,226	13,949	22,885	43,815	336,518

Notes
a. In Q3'23 credit risk RWAs of £9.8bn relating to deferred tax assets (DTAs) were reclassified from IRB to STD with no impact to total RWAs.

Analysis of treasury and capital risk (continued)

Table 11: OV1 – Overview of risk weighted exposure amounts

The table shows RWAs and minimum capital requirement by risk type and approach.

		Risk weighted exposure amounts (RWEAs)			Total own funds requirements		
		As at 31.12.2023 £m	As at 30.09.2023 £m	As at 31.12.2022 £m	As at 31.12.2023 £m	As at 30.09.2023 £m	As at 31.12.2022 £m
1	Credit risk (excluding CCR)[a]	**194,004**	196,501	197,316	**15,520**	15,720	15,786
2	*Of which the standardised approach*	***74,723***	*76,334*	*66,796*	***5,978***	*6,107*	*5,344*
4	*Of which: slotting approach*	***4,296***	*4,688*	*4,945*	***344***	*375*	*396*
5	*Of which the advanced IRB (AIRB) approach*	***114,985***	*115,479*	*125,575*	***9,198***	*9,238*	*10,046*
6	Counterparty credit risk - CCR	**44,549**	43,353	41,881	**3,563**	3,468	3,350
7	*Of which the standardised approach*	***3,753***	*4,126*	*4,081*	***300***	*330*	*326*
8	*Of which internal model method (IMM)*	***26,673***	*26,627*	*25,741*	***2,134***	*2,130*	*2,059*
UK 8a	*Of which exposures to a CCP*	***1,701***	*1,948*	*1,409*	***136***	*156*	*113*
UK 8b	*Of which credit valuation adjustment - CVA*	***3,392***	*3,240*	*3,226*	***271***	*259*	*258*
9	*Of which other CCR*	***9,030***	*7,412*	*7,424*	***722***	*593*	*594*
15	Settlement risk	**159**	123	80	**13**	10	6
16	Securitisation exposures in the non-trading book (after the cap)	**17,686**	16,479	16,592	**1,415**	1,317	1,327
17	*Of which SEC-IRBA approach*	***9,460***	*9,427*	*10,261*	***757***	*754*	*821*
18	*Of which SEC-ERBA (including IAA)*	***2,006***	*1,956*	*1,922*	***160***	*156*	*154*
19	*Of which SEC-SA approach*	***6,169***	*5,081*	*4,404*	***494***	*406*	*352*
UK 19a	*Of which 1250%/ deduction*	***51***	*15*	*5*	***4***	*1*	—
20	Position, foreign exchange and commodities risks (Market risk)	**40,761**	41,547	36,834	**3,261**	3,324	2,947
21	*Of which the standardised approach*	***14,901***	*17,759*	*13,949*	***1,192***	*1,421*	*1,116*
22	*Of which IMA*	***25,860***	*23,788*	*22,885*	***2,069***	*1,903*	*1,831*
UK 22a	Large exposures	**—**	—	—	**—**	—	—
23	Operational risk	**45,558**	43,865	43,815	**3,645**	3,509	3,505
UK 23b	*Of which standardised approach*	***45,558***	*43,865*	*43,815*	***3,645***	*3,509*	*3,505*
24	Amounts below the thresholds for deduction (subject to 250% risk weight) (For information only)	**9,708**	9,810	9,926	**777**	785	794
29	**Total**	**342,717**	341,868	336,518	**27,417**	27,348	26,921

Notes

a In Q3'23 Credit risk RWAs of £9.8bn relating to DTAs were reclassified from IRB to STD with no impact to total RWAs.

Overall RWAs increased by £0.8bn to £342.7bn in the quarter (September 2023: £341.9bn) primarily due to:

- Credit risk RWAs decreased by £2.5bn to £194bn driven by a decrease in business activities within CIB and decrease as a result of foreign exchange movements primarily due to the strengthening of GBP against USD partially offset by an increase due to a change in treatment of non-credit obligation exposures
- Counterparty credit risk RWAs increased by £1.2bn to £44.5bn primarily due to a change in treatment of certain SFT collaterals partially offset by a decrease as a result of foreign exchange movements primarily due to the strengthening of GBP against USD
- Securitisation RWAs increased by £1.2bn to £17.7bn primarily driven by an increase in business activities
- Operational risk RWAs increased by £1.7bn to £45.6bn primarily driven by the inclusion of higher 2023 CC&P and Barclays UK income compared to 2020

Analysis of treasury and capital risk (continued)

Tables 12, 13 and 14 below show a subset of the information included in table 10, focused on positions captured under modelled treatment.

Table 12: CR8 – RWEA flow statements of credit risk exposures under the advanced IRB approach

The total in this table shows the contribution of credit risk RWAs under the AIRB approach excluding Securitisation and non-credit obligation assets and hence will not directly reconcile to the credit risk AIRB RWAs in table 10.

		Three months ended 31.12.2023	Twelve months ended 31.12.2023
		£m	£m
1	**Risk weighted exposure amount as at the end of the previous reporting period**	**113,486**	**114,481**
2	Asset size	**(3,180)**	**(4,850)**
3	Asset quality	**253**	**1,941**
4	Model updates	**—**	**(2,600)**
5	Methodology and policy	**711**	**3,340**
6	Acquisitions and disposals	**—**	**(102)**
7	Foreign exchange movements	**(1,402)**	**(2,342)**
8	Other	**—**	**—**
9	**Risk weighted exposure amount as at the end of the reporting period**	**109,868**	**109,868**

Advanced credit risk RWAs decreased by £3.6bn to £109.9bn in the quarter (September 2023: £113.5bn) driven by:
- A £3.2bn decrease in asset size primarily driven by a decrease in business activities within CIB
- A £1.4bn decrease as a result of foreign exchange movements primarily due to the strengthening of GBP against USD

Advanced credit risk RWAs decreased by £4.6bn to £109.9bn in the year (December 2022: £114.5bn) driven by:
- A £4.9bn decrease in asset size primarily driven by a decrease in business activities within CIB and mortgages within Barclays UK
- A £1.9bn increase in asset quality RWAs primarily driven by changes in risk parameters and HPI refresh within Barclays UK
- A £2.6bn decrease in model updates primarily driven by capital LGD model update for the mortgage portfolio to reflect the significant decrease in repossession volume during and post the COVID pandemic
- A £3.3bn increase in methodology and policy primarily driven by the recalibration of the post model adjustment (PMA) introduced to address the IRB roadmap changes
- A £2.3bn decrease as a result of foreign exchange movements primarily due to the strengthening of GBP against USD

Table 13: CCR7– RWEA flow statements of CCR exposures under the IMM

The total in this table shows the contribution of IMM exposures to CCR RWAs (under both STD and AIRB) in table 10. RWEA changes due to IRB models are now included in 'Credit quality of counterparties'.

		Three months ended 31.12.2023	Twelve months ended 31.12.2023
		£m	£m
1	**Risk weighted exposure amount as at the end of the previous reporting period**	**26,627**	**25,741**
2	Asset size	**592**	**1,066**
3	Credit quality of counterparties	**44**	**787**
4	Model updates (IMM only)	**—**	**—**
5	Methodology and policy (IMM only)	**—**	**—**
6	Acquisitions and disposals	**—**	**—**
7	Foreign exchange movements	**(590)**	**(921)**
8	Other	**—**	**—**
9	**Risk weighted exposure amount as at the end of the reporting period**	**26,673**	**26,673**

IMM RWAs remained stable at £26.7bn in the quarter (September 2023: £26.6bn) with increased trading activity in CIB, offset by the strengthening of GBP against USD.

IMM RWAs increased by £1.0bn to £26.7bn in the year (December 2022: £25.7bn) primarily driven by increased trading activity in CIB partially offset by the strengthening of GBP against USD.

Analysis of treasury and capital risk (continued)

Table 14: MR2-B – RWA flow statements of market risk exposures under the IMA

This table shows the contribution of market risk RWA covered by internal models (i.e. VaR, stressed value at risk(SVaR) and incremental risk charge (IRC)).

		Three month ended 31.12.2023					
		VaR	SVaR	IRC	Other	Total RWEAs	Total own funds requirements
		£m	£m	£m	£m	£m	£m
1	**RWAs at previous period end**	**5,264**	**9,684**	**5,402**	**3,438**	**23,788**	**1,903**
1a	Regulatory adjustment[a]	(2,766)	(2,797)	—	—	(5,563)	(445)
1b	RWAs at the previous quarter-end (end of the day)	2,498	6,887	5,402	3,438	18,225	1,458
2	Movement in risk levels	(316)	(680)	779	789	572	46
3	Model updates/changes	—	1,200	—	—	1,200	96
4	Methodology and policy	—	—	—	—	—	—
5	Acquisitions and disposals	—	—	—	—	—	—
6	Foreign exchange movements	—	—	—	—	—	—
7	Other	—	—	—	—	—	—
8a	RWAs at the end of the reporting period (end of the day)	2,182	7,407	6,181	4,227	19,997	1,600
8b	Regulatory adjustment[b]	2,062	3,801	—	—	5,863	469
8	**RWAs at the end of the disclosure period**	**4,244**	**11,208**	**6,181**	**4,227**	**25,860**	**2,069**

Notes

a Row 1a reflects the difference between reported RWA (row 1) and the relevant spot measure (row 1b) for the previous period.

b Row 8b reflects the difference between the relevant spot measure (row 8a) and reported RWA (row 8) for the current period.

Modelled market risk RWAs increased by £2.1bn to £25.9bn in the quarter (September 2023: £23.8bn) primarily driven by SVaR.

		Twelve month ended 31.12.2023					
		VaR	SVaR	IRC	Other	Total RWEAs	Total own funds requirements
		£m	£m	£m	£m	£m	£m
1	**RWAs at previous period end**	**6,767**	**9,861**	**2,811**	**3,446**	**22,885**	**1,831**
1a	Regulatory adjustment[a]	(3,907)	(5,216)	(33)	—	(9,156)	(733)
1b	RWAs at the previous quarter-end (end of the day)	2,860	4,645	2,778	3,446	13,729	1,098
2	Movement in risk levels	(678)	1,562	3,403	781	5,068	406
3	Model updates/changes	—	1,200	—	—	1,200	96
4	Methodology and policy	—	—	—	—	—	—
5	Acquisitions and disposals	—	—	—	—	—	—
6	Foreign exchange movements	—	—	—	—	—	—
7	Other	—	—	—	—	—	—
8a	RWAs at the end of the reporting period (end of the day)	2,182	7,407	6,181	4,227	19,997	1,600
8b	Regulatory adjustment[b]	2,062	3,801	—	—	5,863	469
8	**RWAs at the end of the disclosure period**	**4,244**	**11,208**	**6,181**	**4,227**	**25,860**	**2,069**

Notes

a Row 1a reflects the difference between reported RWA (row 1) and the relevant spot measure (row 1b) for the previous period.

b Row 8b reflects the difference between the relevant spot measure (row 8a) and reported RWA (row 8) for the current period.

Modelled market risk RWAs increased by £3.0bn to £25.9bn in the year (December 2023: £22.9bn) primarily driven by IRC and SVaR partially offset by a reduction in VaR.

Analysis of treasury and capital risk (continued)

Leverage ratio and exposures

The following leverage tables show the components of the leverage ratio using the UK leverage ratio framework (UKLRF) definition for leverage exposure and Tier 1 capital.

Table 15: LR1 - Summary reconciliation of accounting assets and leverage ratio exposures[a]

		As at 31st December 2023	As at 31st December 2022
		£m	£m
1	Total assets as per published financial statements	**1,477,487**	1,513,699
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of prudential consolidation	**(9,098)**	(8,278)
3	Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference	**(129)**	(473)
4	Adjustment for exemption of exposures to central banks	**(239,616)**	(272,321)
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	**(23,726)**	(21,386)
8	Adjustments for derivative financial instruments	**(110,366)**	(155,951)
9	Adjustment for securities financing transactions (SFTs)	**23,908**	24,203
10	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	**125,730**	124,658
11	Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital	**(2,349)**	(2,215)
12	Other adjustments	**(73,566)**	(71,963)
13	**Total exposure measure**	**1,168,275**	1,129,973

Notes

a Capital and leverage measures are calculated applying the transitional arrangements of the CRR as amended by CRR II.

Analysis of treasury and capital risk (continued)

Table 16: LR2 - Leverage ratio common disclosure[a]

This table shows the leverage ratio calculation and includes additional breakdowns for the leverage exposure measure.

		As at 31st December 2023 £m	As at 31st December 2022 £m
On-balance sheet exposures (excluding derivatives and SFTs)			
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	**996,518**	984,960
3	Deductions of receivables assets for cash variation margin provided in derivatives transactions	**(34,559)**	(19,519)
6	Asset amounts deducted in determining tier 1 capital (leverage)	**(14,063)**	(14,388)
7	**Total on-balance sheet exposures (excluding derivatives and SFTs)**	**947,896**	951,053
Derivative exposures			
8	Replacement cost associated with SA-CCR derivatives transactions (i.e. net of eligible cash variation margin)	**47,779**	65,570
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	**105,172**	99,467
10	Exempted CCP leg of client-cleared trade exposures (SA-CCR)	**(45,301)**	(67,995)
11	Adjusted effective notional amount of written credit derivatives	**679,013**	797,520
12	Adjusted effective notional offsets and add-on deductions for written credit derivatives	**(662,520)**	(781,330)
13	**Total derivatives exposures**	**124,143**	113,232
Securities financing transaction (SFT) exposures			
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	**714,525**	585,959
15	Netted amounts of cash payables and cash receivables of gross SFT assets	**(528,097)**	(397,637)
16	Counterparty credit risk exposure for SFT assets	**24,141**	25,518
18	**Total securities financing transaction exposures**	**210,569**	213,840
Other off-balance sheet exposures			
19	Off-balance sheet exposures at gross notional amount	**402,098**	402,916
20	Adjustments for conversion to credit equivalent amounts	**(276,367)**	(278,258)
21	General provisions deducted in determining tier 1 capital (leverage) and specific provisions associated with off-balance sheet exposures	**(448)**	(489)
22	**Off-balance sheet exposures**	**125,283**	124,169
Capital and total exposure measure			
23	**Tier 1 capital (leverage)**	**60,507**	60,102
24	Total exposure measure including claims on central banks	**1,407,891**	1,402,294
UK-24a	(-) Claims on central banks excluded	**(239,616)**	(272,321)
UK-24b	**Total exposure measure excluding claims on central banks**	**1,168,275**	1,129,973
Leverage ratio			
25	Leverage ratio excluding claims on central banks (%)	**5.2%**	5.3%
UK-25a	Fully loaded ECL accounting model leverage ratio excluding claims on central banks (%)	**5.2%**	5.3%
UK-25c	Leverage ratio including claims on central banks (%)	**4.3%**	4.3%
26	Regulatory minimum leverage ratio requirement (%)	**3.3%**	3.3%
Additional leverage ratio disclosure requirements - leverage ratio buffers			
27	Leverage ratio buffer (%)	**0.8%**	0.7%
UK-27a	*Of which: G-SII or O-SII additional leverage ratio buffer (%)*	***0.5%***	0.5%
UK-27b	*Of which: countercyclical leverage ratio buffer (%)*	***0.3%***	0.2%
Additional leverage ratio disclosure requirements - disclosure of mean values			
28	Mean of daily values of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivable	**257,087**	261,082
29	Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	**186,427**	188,323
UK-31	Average total exposure measure including claims on central banks	**1,522,672**	1,541,367
UK-32	Average total exposure measure excluding claims on central banks	**1,266,880**	1,280,972
UK-33	Average leverage ratio including claims on central banks	**4.0%**	3.9%
UK-34	Average leverage ratio excluding claims on central banks	**4.8%**	4.8%

Notes

a Capital and leverage measures are calculated applying the transitional arrangements of the CRR as amended by CRR II.

Analysis of treasury and capital risk (continued)

Table 17: LR3 - Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)[a]

The table shows a breakdown of the on-balance sheet exposures excluding derivatives, SFTs and exempted exposures, by regulatory asset class.

		As at 31st December 2023 £m	As at 31st December 2022 £m
UK-1	**Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:**	**693,393**	643,590
UK-2	Trading book exposures	**181,036**	142,005
UK-3	Banking book exposures, of which:	**512,357**	501,585
UK-4	Covered bonds	**2,192**	1,043
UK-5	Exposures treated as sovereigns	**104,289**	84,986
UK-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	**8,980**	10,190
UK-7	Institutions	**13,875**	13,465
UK-8	Secured by mortgages of immovable properties	**173,486**	173,726
UK-9	Retail exposures	**50,881**	49,746
UK-10	Corporates	**71,696**	81,056
UK-11	Exposures in default	**4,508**	4,553
UK-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	**82,450**	82,820

Note

a Capital and leverage measures are calculated applying the transitional arrangements of the CRR as amended by CRR II.

Analysis of treasury and capital risk (continued)

Minimum requirement for own funds and eligible liabilities (MREL)

Table KM2 has been prepared in accordance with CRR as amended by CRR II, using the uniform format set out in the Basel Committee for Banking Supervision (BCBS) Standard on Pillar 3 disclosure requirements.

Table 18: KM2 - Key metrics - TLAC requirements (at resolution group level)[a]

This table shows the key metrics for the Group's own funds and eligible liabilities.

		As at 31.12.23	As at 30.09.23	As at 30.06.23	As at 31.03.23	As at 31.12.22
		£m	£m	£m	£m	£m
1	Total Loss Absorbing Capacity (TLAC) available[a]	**115,308**	114,256	111,021	110,642	112,828
1a	Fully loaded ECL accounting model TLAC available	**115,012**	113,966	110,815	110,397	112,161
2	Total RWA at the level of the resolution group[a]	**342,717**	341,868	336,946	338,448	336,518
3	TLAC as a percentage of RWA (row 1 / row 2) (%)[a]	**33.6%**	33.4%	32.9%	32.7%	33.5%
3a	Fully loaded ECL accounting model TLAC as a percentage of fully loaded ECL accounting model RWA (%)	**33.6%**	33.3%	32.9%	32.6%	33.3%
4	Leverage ratio exposure measure at the level of the resolution group	**1,168,275**	1,202,417	1,183,703	1,168,899	1,129,973
5	TLAC as a percentage of leverage ratio exposure measure (row 1 / row 4) (%)	**9.9%**	9.5%	9.4%	9.5%	10.0%
5a	Fully loaded ECL accounting model TLAC as a percentage of fully loaded ECL accounting model Leverage exposure measure (%)	**9.8%**	9.5%	9.4%	9.4%	9.9%
6a	Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	**No**	No	No	No	No
6b	Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	**No**	No	No	No	No
6c	If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with Excluded Liabilities and that is recognised as external TLAC, divided by funding issued that ranks pari passu with Excluded Liabilities and that would be recognised as external TLAC if no cap was applied (%)	**N/A**	N/A	N/A	N/A	N/A

Notes
a Own funds included in TLAC, and RWAs are calculated applying the IFRS9 transitional arrangements of the CRR as amended by CRR II.

As at 31 December 2023, Barclays PLC (the Parent company) held £115.3bn (December 2022: £112.8bn) of own funds and eligible liabilities equating to 33.6% of RWAs. This was in excess of the Group's MREL requirement, excluding the PRA buffer, to hold £103.0bn of own funds and eligible liabilities equating to 30.1% of RWAs. The Group remains above its MREL regulatory requirement including the PRA buffer.

Analysis of treasury and capital risk (continued)

Table 19: TLAC 1 - TLAC composition for G-SIBs (at resolution group level)

This table shows the composition of the Group's own funds and eligible liabilities and ratios.

Barclays Group		As at 31 December 2023 £m	As at 31 December 2022 £m
	Regulatory capital elements of TLAC and adjustments		
1	Common Equity Tier 1 capital (CET1)[a]	**47,304**	46,878
2	Additional Tier 1 capital (AT1) before TLAC adjustment[a]	**13,203**	13,224
5	AT1 instruments eligible under the TLAC framework[a]	**13,203**	13,224
6	Tier 2 capital (T2) before TLAC adjustments[a,b]	**8,375**	9,970
7	Amortised portion of T2 instruments where remaining maturity > 1 year	**985**	1,171
8	T2 capital ineligible as TLAC as issued out of subsidiaries to third parties	**(569)**	(1,095)
10	T2 instruments eligible under the TLAC framework	**8,791**	10,046
11	TLAC arising from regulatory capital	**69,298**	70,148
	Non-regulatory capital elements of TLAC		
12	External TLAC instruments issued directly by the bank and subordinated to excluded liabilities	**46,189**	42,804
17	TLAC arising from non-regulatory capital instruments before adjustments	**46,189**	42,804
	Non-regulatory capital elements of TLAC: adjustments		
18	TLAC before deductions	**115,487**	112,952
20	Deduction of investments in own other TLAC liabilities	**(42)**	(124)
21	Other adjustments to TLAC	**(137)**	—
22	TLAC after deductions	**115,308**	112,828
	Risk-weighted assets and leverage exposure measure for TLAC purposes		
23	Total risk-weighted assets adjusted as permitted under the TLAC regime[a]	**342,717**	336,518
24	Leverage exposure measure[a]	**1,168,275**	1,129,973
	TLAC ratios and buffers		
25	TLAC (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime)	**33.6%**	33.5%
26	TLAC (as a percentage of leverage exposure)	**9.9%**	10.0%
27	CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements	**9.3%**	9.4%
28	Institution-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss absorbency requirement, expressed as a percentage of risk-weighted assets)	**4.9%**	4.4%
29	*Of which: capital conservation buffer requirement*	***2.5%***	*2.5%*
30	*Of which: bank specific countercyclical buffer requirement*	***0.9%***	*0.4%*
31	*Of which: higher loss absorbency requirement*	***1.5%***	*1.5%*

Notes

a Own funds included in TLAC, Leverage and RWAs are calculated applying the transitional arrangements of the CRR as amended by CRR II.

b Tier 2 capital is calculated applying the grandfathering of CRR II non-compliant capital instruments.

Analysis of treasury and capital risk (continued)

Table 20: TLAC 3 - Resolution entity - creditor ranking at legal entity level

This table shows the nominal values of Barclays PLC's (the Parent company) capital and liabilities and the position in creditor hierarchy.

Barclays PLC (the Parent company)

		Creditor ranking				
		1	2	3	4	
		Most junior			Most senior	Total
As at 31 December 2023		£m	£m	£m	£m	£m
1	Description of creditor ranking	Ordinary Shares	Perpetual Deeply Subordinated Contingent Convertible Debt	Dated Subordinated Debt	Unsecured and Unsubordinated Debt, and other pari passu liabilities	
2	Total capital and liabilities net of credit risk mitigation	**3,789**	**13,310**	**9,974**	**51,738**	**78,811**
3	Subset of row 2 that are excluded liabilities	**—**	**—**	**—**	**1,339**	**1,339**
4	Total capital and liabilities less excluded liabilities	**3,789**	**13,310**	**9,974**	**50,399**	**77,472**
5	Subset of row 4 that are potentially eligible as TLAC	**3,789**	**13,310**	**9,974**	**48,931**	**76,004**
6	Subset of row 5 with 1 year ≤ residual maturity < 2 years	**—**	**—**	**—**	**5,526**	**5,526**
7	Subset of row 5 with 2 years ≤ residual maturity < 5 years	**—**	**—**	**3,180**	**20,582**	**23,762**
8	Subset of row 5 with 5 years ≤ residual maturity < 10 years	**—**	**—**	**3,664**	**14,527**	**18,191**
9	Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities	**—**	**—**	**2,748**	**8,296**	**11,044**
10	Subset of row 5 that is perpetual securities	**3,789**	**13,310**	**—**	**—**	**17,099**

As at 31 December 2022						
1	Description of creditor ranking	Ordinary Shares	Perpetual Deeply Subordinated Contingent Convertible Debt	Dated Subordinated Debt	Unsecured and Unsubordinated Debt, and other pari passu liabilities	
2	Total capital and liabilities net of credit risk mitigation	3,968	13,342	11,151	50,482	78,943
3	Subset of row 2 that are excluded liabilities	—	—	—	1,519	1,519
4	Total capital and liabilities less excluded liabilities	3,968	13,342	11,151	48,963	77,424
5	Subset of row 4 that are potentially eligible as TLAC	3,968	13,342	11,151	46,875	75,336
6	Subset of row 5 with 1 year ≤ residual maturity < 2 years	—	—	1,039	5,960	6,999
7	Subset of row 5 with 2 years ≤ residual maturity < 5 years	—	—	1,703	19,082	20,785
8	Subset of row 5 with 5 years ≤ residual maturity < 10 years	—	—	6,747	12,259	19,006
9	Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities	—	—	1,662	9,574	11,236
10	Subset of row 5 that is perpetual securities	3,968	13,342	—	—	17,310

Analysis of treasury and capital risk (continued)

Table 21: TLAC 2 - Material subgroup entity - creditor ranking at legal entity level

This table shows the nominal values of Barclays Bank PLC's capital and liabilities and the position in creditor hierarchy.

Barclays Bank PLC

		Creditor ranking				
		1	2	3	4	
		Most junior			Most senior	Total
As at 31 December 2023		£m	£m	£m	£m	£m
1	Is the resolution entity the creditor/investor?	**Yes**	**Yes**	**Yes**	**Yes**	
2	Description of creditor ranking	Ordinary Shares	Perpetual Deeply Subordinated Contingent Convertible Debt	Dated Subordinated Debt	Dated secondary non-preferential debt	
3	Total capital and liabilities net of credit risk mitigation	**2,343**	**10,860**	**11,125**	**26,042**	**50,370**
4	Subset of row 3 that are excluded liabilities	**—**	**—**	**—**	**—**	**—**
5	Total capital and liabilities less excluded liabilities	**2,343**	**10,860**	**11,125**	**26,042**	**50,370**
6	Subset of row 5 that are eligible as TLAC	**2,343**	**10,860**	**11,125**	**25,525**	**49,853**
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	**—**	**—**	**—**	**4,012**	**4,012**
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	**—**	**—**	**2,015**	**11,883**	**13,898**
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	**—**	**—**	**4,577**	**5,047**	**9,624**
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	**—**	**—**	**4,533**	**4,583**	**9,116**
11	Subset of row 6 that is perpetual securities	**2,343**	**10,860**	**—**	**—**	**13,203**

As at 31 December 2022						
1	Is the resolution entity the creditor/investor?	Yes	Yes	Yes	Yes	
2	Description of creditor ranking	Ordinary Shares	Perpetual Deeply Subordinated Contingent Convertible Debt	Dated Subordinated Debt	Dated secondary non-preferential debt	
3	Total capital and liabilities net of credit risk mitigation	2,343	10,767	12,256	27,897	53,263
4	Subset of row 3 that are excluded liabilities	—	—	—	—	—
5	Total capital and liabilities less excluded liabilities	2,343	10,767	12,256	27,897	53,263
6	Subset of row 5 that are eligible as TLAC	2,343	10,767	12,256	25,807	51,173
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	—	—	—	4,179	4,179
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	—	—	1,136	12,679	13,815
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	—	—	5,417	5,444	10,861
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	—	—	5,704	3,505	9,209
11	Subset of row 6 that is perpetual securities	2,343	10,767	—	—	13,109

Analysis of treasury and capital risk (continued)

Table 22: TLAC2 - Material subgroup entity - creditor ranking at legal entity level

This table shows the nominal values of Barclays Bank UK PLC Group's capital and liabilities and the position in creditor hierarchy.

Barclays Bank UK PLC Group

		Creditor ranking				
		1	2	3	4	
		Most junior			Most senior	Total
As at 31 December 2023		£m	£m	£m	£m	£m
1	Is the resolution entity the creditor/investor?	**Yes**	**Yes**	**Yes**	**Yes**	
2	Description of creditor ranking	Ordinary Shares	Perpetual Deeply Subordinated Contingent Convertible Debt	Dated Subordinated Debt	Dated secondary non-preferential debt	
3	Total capital and liabilities net of credit risk mitigation	**5**	**2,450**	**3,491**	**8,370**	**14,316**
4	Subset of row 3 that are excluded liabilities	**—**	**—**	**—**	**—**	**—**
5	Total capital and liabilities less excluded liabilities	**5**	**2,450**	**3,491**	**8,370**	**14,316**
6	Subset of row 5 that are eligible as TLAC	**5**	**2,450**	**3,110**	**8,370**	**13,935**
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	**—**	**—**	**—**	**864**	**864**
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	**—**	**—**	**1,165**	**4,040**	**5,205**
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	**—**	**—**	**657**	**2,767**	**3,424**
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	**—**	**—**	**1,288**	**699**	**1,987**
11	Subset of row 6 that is perpetual securities	**5**	**2,450**	**—**	**—**	**2,455**

As at 31 December 2022						
1	Is the resolution entity the creditor/investor?	Yes	Yes	Yes	Yes	
2	Description of creditor ranking	Ordinary Shares	Perpetual Deeply Subordinated Contingent Convertible Debt	Dated Subordinated Debt	Dated secondary non-preferential debt	
3	Total capital and liabilities net of credit risk mitigation	5	2,575	3,769	5,314	11,663
4	Subset of row 3 that are excluded liabilities	—	—	—	—	—
5	Total capital and liabilities less excluded liabilities	5	2,575	3,769	5,314	11,663
6	Subset of row 5 that are eligible as TLAC	5	2,575	3,769	5,314	11,663
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	—	—	1,039	561	1,600
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	—	—	568	2,767	3,335
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	—	—	1,331	1,662	2,993
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	—	—	831	324	1,155
11	Subset of row 6 that is perpetual securities	5	2,575	—	—	2,580

Analysis of treasury and capital risk (continued)

Table 23: LIQ1 - Liquidity Coverage Ratio

This table shows the level and components of the LCR.

Liquidity coverage ratio (average)		Total unweighted value (average)				Total weighted value (average)			
UK1a		31.12.23	30.09.23	30.06.23	31.03.23	31.12.23	30.09.23	30.06.23	31.03.23
UK1b	Number of data points used in calculation of averages[a]	12	12	12	12	12	12	12	12
High-quality liquid assets		£m	£m	£m	£m	£m	£m	£m	£m
1	Total high-quality liquid assets (HQLA)					**310,328**	313,477	319,310	322,981
Cash outflows									
2	**Retail deposits and deposits from small business customers, of which:**	**254,869**	260,439	265,698	268,494	**22,207**	22,782	23,435	23,786
3	Stable deposits	**128,892**	132,451	135,749	138,153	**6,445**	6,623	6,787	6,908
4	Less stable deposits	**115,836**	118,757	122,265	124,314	**15,458**	15,897	16,420	16,727
5	**Unsecured wholesale funding, of which:**	**239,878**	244,914	253,765	259,543	**121,108**	125,293	130,921	134,792
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	**71,614**	68,187	69,446	69,616	**17,607**	16,745	17,054	17,092
7	Non-operational deposits (all counterparties)[b]	**155,353**	163,645	171,099	176,783	**90,590**	95,466	100,647	104,556
8	Unsecured debt	**12,911**	13,082	13,220	13,144	**12,911**	13,082	13,220	13,144
9	**Secured wholesale funding**					**72,650**	68,792	64,280	61,029
10	**Additional requirements, of which:**	**181,096**	181,190	182,304	183,099	**54,969**	54,569	54,811	54,250
11	Outflows related to derivative exposures and other collateral requirements	**24,262**	23,022	22,217	21,188	**19,267**	18,744	18,584	17,976
12	Outflows related to loss of funding on debt products	**3,897**	4,424	5,019	4,999	**3,897**	4,424	5,019	4,999
13	Credit and liquidity facilities	**152,937**	153,744	155,068	156,912	**31,805**	31,401	31,208	31,275
14	**Other contractual funding obligations**	**6,461**	6,622	6,919	7,406	**5,626**	5,786	6,083	6,568
15	**Other contingent funding obligations**	**209,166**	208,758	208,221	201,650	**6,708**	6,928	7,047	7,133
16	**Total cash outflows**					**283,268**	284,150	286,577	287,558
Cash inflows									
17	**Secured lending (e.g. reverse repos)**	**665,006**	639,680	623,295	614,917	**73,805**	69,494	66,007	64,141
18	**Inflows from fully performing exposures**	**13,309**	13,320	14,252	13,955	**9,678**	9,751	10,329	9,968
19	Other cash inflows[c]	**11,922**	11,917	11,920	12,010	**7,144**	7,071	6,915	6,939
UK-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					**—**	—	—	—
UK-19b	**(Excess inflows from a related specialised credit institution)**					**—**	—	—	—
20	Total cash inflows	**690,237**	664,917	649,467	640,882	**90,627**	86,316	83,251	81,048
UK-20a	**Fully exempt inflows**	**—**	—	—	—	**—**	—	—	—
UK-20b	Inflows subject to 90% cap	**—**	—	—	—	**—**	—	—	—
UK-20c	Inflows subject to 75% cap	**577,704**	555,226	539,187	528,677	**90,627**	86,316	83,251	81,048
UK-21	**Liquidity buffer**					**310,328**	313,477	319,310	322,981
22	**Total net cash outflows**					**192,641**	197,835	203,326	206,510
23	**Liquidity coverage ratio (%)**					**161%**	159%	157%	157%

Notes

a The LCR is computed as a trailing average of the last 12 month-end ratios.

b Non-operational deposits in row 7 also includes excess operational deposits as defined in the PRA Rulebook (LCR - CRR) Article 27(4).

c. Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies.

As at 31st December 2023, the 12 month trailing average LCR was 161% (September 2023: 159%), equivalent to a surplus of £117.7bn (September 2023: £115.6bn) above the 100% regulatory requirement.

Analysis of treasury and capital risk (continued)

Table 23: LIQ1 - Liquidity Coverage Ratio - continued

The trailing 12 month-end average LCR to 31 December 2023 increased to 161% (Q323: 159%). The quarterly decrease in HQLA was driven by lower wholesale funding, a slight reduction in total deposits and an increase in business funding consumption. The decrease in net stress outflows is driven by an increase in the proportion of corporate deposits treated as operational.

The composition of the liquidity pool is subject to limits set by the Board and the independent liquidity risk, credit risk and market risk functions. In addition, the investment of the liquidity pool is monitored for concentration risk by issuer, currency and asset type. Given the returns generated by these highly liquid assets, the risk and reward profile is continuously managed. As at 31 December 2023, 59% (December 2022: 60%) of the liquidity pool was located in Barclays Bank PLC, 22% (December 2022: 25%) in Barclays Bank UK Group and 11% (December 2022: 9%) in Barclays Bank Ireland PLC. The residual portion of the liquidity pool is held outside of these entities, predominantly in the US subsidiaries, to meet entity-specific stress outflows and local regulatory requirements. To the extent the use of this portion of the liquidity pool is restricted due to local regulatory requirements, it is assumed to be unavailable to the rest of the Group in calculating the LCR.

The strong deposit franchises in Barclays Bank PLC and Barclays Bank UK Group are primary funding sources for Barclays Group. The Group expects to continue issuing public wholesale debt from Barclays PLC (the Parent company), in order to maintain compliance with indicative MREL requirements and maintain a stable and diverse funding base by type, currency and market. Barclays Bank PLC continued to issue in the shorter-term markets and maintain active medium-term note programmes. Barclays Bank UK Group continued to issue in the shorter-term markets and maintain active secured funding programmes. This funding capacity enables the respective entities to maintain its stable and diversified funding base.

Barclays Bank PLC and Barclays Bank UK Group also supports various central bank monetary initiatives, such as the Bank of England's Term Funding Scheme with additional incentives for SMEs (TFSME), and the European Central Bank's Targeted Long-Term Refinancing Operations (TLTRO). These are reported under 'repurchase agreements and other similar secured borrowing' on the balance sheet.

Analysis of treasury and capital risk (continued)

Table 24: LIQ2 - Net Stable funding ratio

This table shows the NSFR that the bank requires to maintain a stable balance sheet funding profile.

As at 31 December 2023		Unweighted value by residual maturity				
	(in currency amount)	No maturity	< 6 months	6 months to <	≥ 1yr	Weighted
Available stable funding (ASF) Items						
1	Capital items and instruments	56,091	5,777	5,275	54,344	113,072
2	Own funds	56,091	1,500	1,790	20,754	77,739
3	Other capital instruments		4,277	3,485	33,590	35,333
4	Retail deposits		254,518	9,422	4,147	248,494
5	Stable deposits		131,674	4,351	2,090	131,313
6	Less stable deposits		122,844	5,071	2,057	117,181
7	Wholesale funding:		542,324	48,022	103,707	245,119
8	Operational deposits		74,569	—	—	37,284
9	Other wholesale funding		467,755	48,022	103,707	207,835
10	Interdependent liabilities		—	—	—	—
11	Other liabilities:	3,299	107,096	—	100	100
12	NSFR derivative liabilities	3,299				
13	All other liabilities and capital instruments not included in the above categories		107,096	—	100	100
14	**Total available stable funding (ASF)**					**606,785**
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)					43,318
UK-15a	Assets encumbered for more than 12m in cover pool	—	55,865	—	—	47,485
16	Deposits held at other financial institutions for operational purposes		—	—	—	—
17	Performing loans and securities:		226,919	23,527	304,923	271,718
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut		37,882	255	3,782	3,911
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions		154,514	7,997	34,049	46,402
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:		30,545	12,291	110,012	115,846
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		9,166	4,216	39,543	39,335
22	Performing residential mortgages, of which:		3,175	2,862	156,400	104,679
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk		3,175	2,862	156,400	104,679
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products		803	122	680	880
25	Interdependent assets		—	—	—	—
26	Other assets:	—	132,335	—	35,799	67,675
27	Physical traded commodities				—	—
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		32,264	—	—	27,424
29	NSFR derivative assets		—	—	—	—
30	NSFR derivative liabilities before deduction of variation margin posted		78,038	—	—	3,902
31	All other assets not included in the above categories		22,033	—	35,799	36,349
32	Off-balance sheet items		190,892	13	35	9,455
33	**Total RSF**					**439,651**
34	**Net Stable Funding Ratio (%)**[a]					**138%**

Analysis of treasury and capital risk (continued)

Table 24: LIQ2 - Net Stable Funding Ratio - continued

As at 31 December 2022		Unweighted value by residual maturity				
	(in currency amount)	No maturity	< 6 months	6 months to <	≥ 1yr	Weighted
Available stable funding (ASF) Items						
1	Capital items and instruments	56,291	4,251	5,173	56,524	115,402
2	Own funds[b]	56,291	2,429	2,636	20,010	77,619
3	Other capital instruments[b]		1,823	2,537	36,514	37,783
4	Retail deposits		271,279	4,221	1,715	256,766
5	Stable deposits		140,962	1,050	851	135,763
6	Less stable deposits		130,317	3,171	864	121,003
7	Wholesale funding:		524,392	35,676	87,442	204,273
8	Operational deposits		69,638	—	—	34,819
9	Other wholesale funding		454,754	35,676	87,442	169,454
10	Interdependent liabilities		—	—	—	—
11	Other liabilities:	1,073	94,523	22,498	25	50
12	NSFR derivative liabilities	1,073				
13	All other liabilities and capital instruments not included in the above categories		94,523	22,498	25	50
14	**Total available stable funding (ASF)**					576,491
Required stable funding (RSF) Items						
15	Total high-quality liquid assets (HQLA)					34,478
UK-15a	Assets encumbered for more than 12m in cover pool	—	41,006	—	—	34,855
16	Deposits held at other financial institutions for operational purposes		—	—	—	—
17	Performing loans and securities:		228,380	31,949	298,856	273,802
18	Performing securities financing transactions with financial customers collateralised by Level 1 HQLA subject to 0% haircut[b]		44,549	1,019	11,697	12,207
19	Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions[b]		135,283	7,421	38,127	49,608
20	Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:[b]		45,064	20,389	95,559	108,927
21	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk[b]		10,514	12,251	12,389	15,497
22	Performing residential mortgages, of which:[b]		3,485	3,120	153,473	103,060
23	With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk[b]		3,485	3,120	153,473	103,060
24	Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products		—	—	—	—
25	Interdependent assets		—	—	—	—
26	Other assets:	—	109,191	—	35,270	68,184
27	Physical traded commodities				—	—
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		28,470	—	—	24,200
29	NSFR derivative assets		4,809	—	—	4,809
30	NSFR derivative liabilities before deduction of variation margin posted		75,362	—	—	3,768
31	All other assets not included in the above categories		550	—	35,270	35,407
32	Off-balance sheet items		184,071	10	39	9,570
33	**Total RSF**					420,889
34	**Net Stable Funding Ratio (%)[a]**					137%

Notes

a NSFR is computed as a trailing average of the last four spot quarter end positions.
b The prior period comparative has been restated. This has no impact on the Net Stable Funding Ratio.

The NSFR metric requires banks to maintain a stable funding profile taking into account both on- and certain off-balance sheet exposures over the medium to long term. The ratio is defined as the Available Stable Funding ('ASF') (capital and certain liabilities which are treated as stable sources of funding) relative to the Required Stable Funding ('RSF') (a measure of assets on the balance sheet and certain off-balance sheet exposures which may require longer term funding).

As at 31 December 2023, the trailing average NSFR for the last four spot quarter end positions was 138% (December 2022: 137%), equivalent to a surplus of £167.1bn (December 2022: 155.6bn) above the 100% regulatory requirement. Average ASF increased by £30bn driven by an increase in repurchase agreements balances and the proportion of corporate deposits treated as operational, whilst the RSF increased by £19bn driven by increased business funding requirements.

Analysis of treasury and capital risk (continued)

Foreign exchange risk

The Group is exposed to two sources of foreign exchange risk:

a) Transactional foreign currency exposure

Transactional foreign currency exposures represent exposure on banking assets and liabilities, denominated in currencies other than the functional currency of the transacting entity.

The Group's risk management policies are designed to prevent the holding of significant open positions in foreign currencies outside the trading portfolio managed by Barclays International which is monitored through VaR.

Banking book transactional foreign exchange risk outside of Barclays International is monitored on a daily basis by the market risk function and minimised by the businesses.

b) Translational foreign exchange exposure

The Group's investments in overseas subsidiaries and branches create capital resources denominated in foreign currencies, principally USD and EUR. Changes in the GBP value of the net investments due to foreign currency movements are captured in the currency translation reserve, resulting in a movement in CET1 capital.

The Group's strategy is to minimise the volatility of the capital ratios caused by foreign exchange movements, by matching the CET1 capital movements to the revaluation of the Group's foreign currency RWA exposures.

Table 25: Functional currency of operations

	Foreign currency net investments	Borrowings which hedge the net investments	Derivatives which hedge the net investments	Structural currency exposures pre-economic hedges	Economic hedges	Remaining structural currency exposures
	£m	£m	£m	£m	£m	£m
As at 31 December 2023						
USD	**26,524**	**(7,308)**	**(2,179)**	**17,037**	**(7,326)**	**9,711**
EUR	**9,868**	**(5,603)**	**—**	**4,265**	**(276)**	**3,989**
JPY	**646**	**(174)**	**—**	**472**	**—**	**472**
Other currencies	**3,329**	**(72)**	**(1,565)**	**1,692**	**(505)**	**1,187**
Total	**40,367**	**(13,157)**	**(3,744)**	**23,466**	**(8,107)**	**15,359**
As at 31 December 2022						
USD	27,441	(7,363)	(2,086)	17,992	(8,688)	9,304
EUR	9,776	(5,461)	(3)	4,312	(283)	4,029
JPY	689	—	(197)	492	—	492
Other currencies	3,330	—	(1,676)	1,654	(279)	1,375
Total	41,236	(12,824)	(3,962)	24,450	(9,250)	15,200

Economic hedges relate to exposures arising on foreign currency denominated preference share and AT1 instruments. These are accounted for at historical cost under IFRS and do not qualify as hedges for accounting purposes. The gain or loss arising from changes in the GBP value of these instruments is recognised on redemption in retained earnings.

During 2023, total structural currency exposure net of hedging instruments increased to £15.4bn (December 2022: £15.2bn). Foreign currency net investments decreased to £40.4bn (December 2022:£41.2bn) driven predominantly by a £0.9bn decrease in USD, offset by £0.1bn increase in EUR .The hedges associated with these investments increased to £16.9bn (December 2022: £16.8bn).

Analysis of treasury and capital risk (continued)

Pension risk review

The UK Retirement Fund (UKRF) represents approximately 96% (December 2022: 96%) of the Group's total retirement benefit obligations globally. As such this section focuses exclusively on the UKRF. The UKRF is closed to new entrants and there is no new final salary benefit being accrued. Existing active members accrue a combination of a cash balance benefit and a defined contribution element. Pension risk arises as the market value of the pension fund assets may decline, investment returns may reduce or the estimated value of the pension liabilities may increase.

Refer to page 177 for more information on how pension risk is managed.

Assets

The Trustee Board of the UKRF defines its overall long-term investment strategy with investments across a broad range of asset classes. This results in a diversified mix of return seeking assets as well as liability matching assets to better match future pension obligations. The two largest risks within the asset portfolio are credit spread and growth assets. The split of scheme assets is shown within Note 32 on page 487 of the Barclays PLC Annual Report 2023. The fair value of the UKRF assets was £24.2bn (December 2022: £24.7bn).

Liabilities

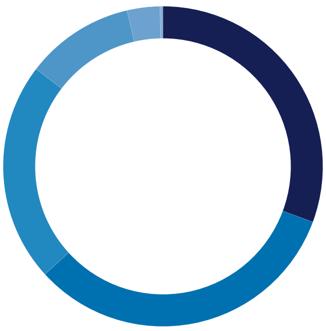
The UKRF retirement benefit obligations are a series of future cash flows with relatively long duration. On an IAS 19 basis these cash flows are sensitive to changes in the expected long-term price inflation rate (RPI) and the discount rate (GBP AA corporate bond yield):

- An increase in long-term expected inflation corresponds to an increase in liabilities
- A decrease in the discount rate corresponds to an increase in liabilities

Pension risk is generated through the Group's defined benefit schemes and this risk is set to reduce over time as the main defined benefit scheme is closed to new entrants. The chart below outlines the shape of the UKRF's liability cash flow profile as at 31 December 2023 that takes account of the future inflation indexing of payments to beneficiaries. The majority of the cash flows (approximately 96%) fall between 0 and 40 years, peaking between 11 and 20 years and reducing thereafter. The shape may vary depending on changes to inflation and longevity expectations and any members who elect to transfer out. Transfers out will bring forward the liability cash flows.

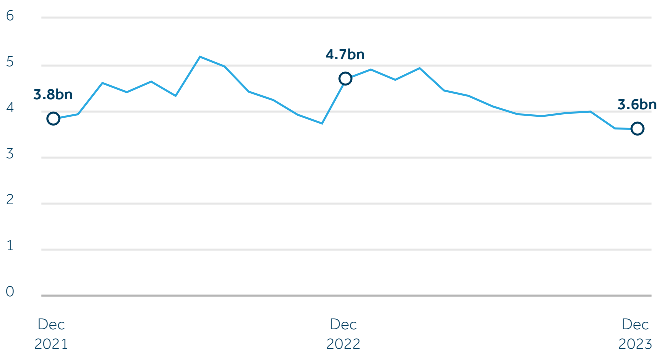
For more detail on the UKRF's financial and demographic assumptions, see Note 32 on page 483 of the Barclays PLC Annual Report 2023.

Proportion of liability cash flows
(%)



0-10 years	30.7
11-20 years	32.6
21-30 years	22.2
31-40 years	11
41-50 years	3.3
51+ years	0.3

Net IAS 19 position
(£bn)



The graph above shows the evolution of the UKRF's net IAS 19 position over the last two years. During 2023 the decrease in the UKRF surplus was driven by assets underperforming the discount rate and lower corporate bond yields.

Analysis of treasury and capital risk (continued)

Risk measurement

In line with Barclays' risk management framework the assets and liabilities of the UKRF are modelled within a VaR framework to show the volatility of the pension position at a total portfolio level. This enables the risks, diversification and liability matching characteristics of the UKRF obligations and investments to be adequately captured. VaR is measured and monitored on a monthly basis. Risks are reviewed and reported regularly at the Pensions Executive Board. The VaR model takes into account the valuation of the liabilities on an IAS 19 basis (see Note 32 on page 483 of the Barclays PLC Annual Report 2023). The Trustee receives quarterly VaR measures on a funding basis.

The pension liability is also sensitive to post-retirement mortality assumptions which are reviewed regularly (see Note 32 on page 483 of the Barclays PLC Annual Report 2023). To mitigate part of this risk the UKRF has entered into longevity reinsurance contracts hedging approximately three quarters of current pensioner liabilities.

In addition, the impact of pension risk to the Group is taken into account as part of the stress testing process. Stress testing is performed internally on at least an annual basis. The UKRF exposure is also included as part of regulatory stress tests.

Barclays defined benefit pension schemes affects capital in two ways:

- An IAS 19 deficit is treated as a liability on the Group's balance sheet. Movement in a deficit due to remeasurements, including actuarial losses, are recognised immediately through Other Comprehensive Income and as such reduces shareholders' equity and CET1 capital. An IAS 19 surplus is treated as an asset on the balance sheet and increases shareholders' equity; however, it is deducted for the purposes of determining CET1 capital
- In the Group's statutory balance sheet an IAS 19 surplus or deficit is partially offset by a deferred tax liability or asset respectively. These may or may not be recognised for calculating CET1 capital depending on the overall deferred tax position of the Group at the particular time

Pension risk is taken into account in the Pillar 2A capital assessment undertaken by the PRA at least annually. The Pillar 2A requirement forms part of the overall capital requirement for the Group.

Interest rate risk in the banking book

The table below shows the impact on the Bank's economic value of equity (EVE) from the six Basel Standard Outlier interest rate shock scenarios defined by Rule 9.7 of the PRA Rulebook.

For net interest income (NII) there are two prescribed parallel shocks. An immediate parallel shock of +/-250bps is applied to GBP, and +/-200bps to USD and EUR. Other currencies are shocked as per regulatory guidelines (prescribed by Rule 9.11 of the PRA Rulebook). This metric is a risk evaluation of the Bank's balance sheet and does not factor in the impact of management and mitigating actions expected in the respective interest rate environments.

Table 26: IRRBB1 - Quantitative information on IRRBB

	In reporting currency	ΔEVE		ΔNII		Tier 1 capital	
	Period	31.12.23	30.06.23	31.12.23	30.06.23	31.12.23	30.06.23
10	Parallel shock up	**(4,337)**	(4,509)	**154**	(124)		
20	Parallel shock down	**1,274**	2,056	**(583)**	(194)		
30	Steepener shock	**(916)**	(533)				
40	Flattener shock	**(392)**	(1,247)				
50	Short rates shock up	**(1,793)**	(2,880)				
60	Short rates shock down	**620**	1,059				
70	**Maximum**	**(4,337)**	(4,509)	**(583)**	(194)		
80	**Tier 1 capital**					**60,507**	60,339

The maximum EVE loss under the six scenarios was -£4,337m (June 2023: -£4,509) under the parallel up scenario as of 31 December 2023.

The material driver of the parallel up scenario is the sensitivity of the Bank's structural hedging of its equity position and the fixed interest rate positions held within the liquidity pool.

The maximum one-year loss in NII was -£583m (June 2023: -£194m) as of 31 December 2023. The material driver of the parallel down scenario is the exposure to timing of pricing changes to deposits across the Retail, Corporate and Private Bank.

The average repricing maturity assigned to non-maturing deposits is 15 months, with the longest repricing maturity assigned to any portfolio of non-maturing deposits being 120 months. This is calculated using a simple weighted average maturity including all non-maturing deposits, regardless of hedging treatment.

Analysis of treasury and capital risk (continued)

Table 27: PV1 - Prudent valuation adjustments (PVA)

This table below provides a granular breakdown of the Prudent Valuation Adjustment (PVA). PVA is a Common Equity Tier 1 capital deduction. CRR Articles 34 &105 define regulatory principles that are applied to all fair valued assets and liabilities in order to determine a prudent valuation. PVA is the difference between the financial statement fair valuation and the prudent valuation.

		Risk category					Category level AVA - Valuation uncertainty		Total category level post-diversification		
		Equity	Interest Rates	Foreign exchange	Credit	Commodities	Unearned credit spreads AVA	Investment and funding costs AVA		Of which: Total core approach in the trading book [a,b]	Of which: Total core approach in the banking book [a,b]
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
As at 31 December 2023											
1	Market price uncertainty	**578**	**395**	**71**	**942**	**—**	**101**	**204**	**1,145**	**710**	**435**
2	Set not applicable in the UK										
3	Close-out cost	**162**	**112**	**14**	**61**	**—**	**11**	**1**	**181**	**150**	**31**
4	Concentrated positions	**51**	**30**	**7**	**9**	**—**	**—**	**—**	**97**	**97**	**—**
5	Early termination	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
6	Model risk	**77**	**63**	**2**	**15**	**—**	**206**	**3**	**182**	**175**	**7**
7	Operational risk	**41**	**33**	**4**	**55**	**—**	**—**	**—**	**133**	**88**	**45**
10	Future administrative costs	**37**	**87**	**4**	**35**	**—**	**—**	**—**	**163**	**162**	**1**
12	Total Additional Valuation Adjustments (AVAs)	**946**	**720**	**102**	**1,117**	**—**	**318**	**208**	**1,901**	**1,382**	**519**
As at 31 December 2022											
1	Market price uncertainty	745	527	74	580	—	129	298	1,176	890	286
2	Set not applicable in the UK	—	—	—	—	—	—	—	—	—	—
3	Close-out cost	151	117	16	46	—	8	3	171	167	4
4	Concentrated positions	20	32	6	13	—	—	—	71	71	—
5	Early termination	—	—	—	—	—	—	—	—	—	—
6	Model risk	62	48	1	10	—	19	—	70	65	5
7	Operational risk	50	42	4	38	—	—	—	134	97	37
10	Future administrative costs	—	89	11	4	—	—	—	104	104	—
12	Total Additional Valuation Adjustments (AVAs)	1,028	855	112	691	—	156	301	1,726	1,394	332

Notes

a Significant contributors to PVA include trading book derivative portfolios, equity investments and loans held at fair value. Banking book PVA include loans made to Education, Social Housing and Local Authority counterparties and certain Equity investments.

b A diversification reduction factor of 50% is applied to uncertainty after all regulatory exclusions and offsets, where permitted by CRR.

PVA increased by £0.2bn to £1.9bn (December 2022: £1.7bn) primarily driven by an increase for price uncertainty within corporate loans, including the leveraged finance loan portfolio.

Analysis of credit risk

This section details Barclays' credit risk profile, focusing on regulatory measures such as exposure at default and risk weighted assets. The risk profile is analysed by country and industry concentrations, residual maturities, probabilities of default and actual losses.

Key Metrics

Total RWAs

£194.0bn

(2022: £197.3bn)

Analysis of credit risk

Analysis of capital requirements and exposures for credit risk

Table 28: CR4 - Standardised approach - Credit risk exposure and CRM effects

This table shows the impact of CRM and CCF on exposure values, broken down by regulatory exposure class. This table includes exposures subject to the standardised approach only.

The term 'before CCF and CRM' means the original gross exposures before the application of credit conversion factors and before the application of risk mitigation techniques.

		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
		£m	£m	£m	£m	£m	%
As at 31 December 2023							
1	Central governments or central banks	**251,687**	**36,730**	**263,131**	**46,153**	**9,268**	**3%**
2	Regional governments or local authorities	**5,191**	**222**	**5,874**	**13**	**788**	**13%**
3	Public sector entities	**7,383**	**366**	**579**	**55**	**127**	**20%**
4	Multilateral development banks	**5,975**	**—**	**5,975**	**—**	**—**	**0%**
5	International organisations	**1,055**	**—**	**1,055**	**—**	**—**	**0%**
6	Institutions	**5,914**	**1,851**	**5,859**	**747**	**1,651**	**25%**
7	Corporates	**28,894**	**45,335**	**19,862**	**10,435**	**27,897**	**92%**
8	Retail	**35,787**	**115,814**	**31,922**	**59**	**23,858**	**75%**
9	Secured by mortgages on immovable property	**12,578**	**345**	**12,550**	**88**	**4,966**	**39%**
10	Exposures in default	**2,292**	**571**	**1,615**	**147**	**2,107**	**120%**
11	Exposures associated with particularly high risk	**1,975**	**16**	**1,975**	**8**	**2,975**	**150%**
12	Covered bonds	**1,169**	**—**	**1,169**	**—**	**123**	**11%**
13	Institutions and corporates with a short-term credit assessment	**—**	**—**	**—**	**—**	**—**	**—**
14	Collective investment undertakings	**—**	**—**	**—**	**—**	**—**	**—**
15	Equity	**260**	**20**	**260**	**10**	**675**	**250%**
16	Other items	**288**	**—**	**288**	**—**	**288**	**100%**
17	**Total**	**360,448**	**201,270**	**352,114**	**57,715**	**74,723**	**18%**
As at 31 December 2022							
1	Central governments or central banks	272,764	39,138	286,310	49,616	111	0%
2	Regional governments or local authorities	5,580	248	6,621	25	838	13%
3	Public sector entities	7,206	416	735	94	161	19%
4	Multilateral development banks	5,550	—	5,550	—	—	0%
5	International organisations	295	—	295	—	—	0%
6	Institutions	5,644	1,610	5,558	761	1,860	29%
7	Corporates	32,098	42,827	21,646	10,731	29,435	91%
8	Retail	36,190	114,869	30,634	51	22,915	75%
9	Secured by mortgages on immovable property	10,451	514	10,421	49	3,899	37%
10	Exposures in default	2,744	728	1,736	289	2,486	123%
11	Exposures associated with particularly high risk	1,915	4	1,915	2	2,875	150%
12	Covered bonds	294	—	294	—	29	10%
13	Institutions and corporates with a short-term credit assessment	—	—	—	—	—	—
14	Collective investment undertakings	—	—	—	—	—	—
15	Equity	134	—	134	—	334	250%
16	Other items	4,364	—	4,364	—	1,853	42%
17	**Total**	385,229	200,354	376,213	61,618	66,796	15%

Standardised credit risk RWAs increased by £7.9bn to £74.7bn (December 2022: £66.8bn) primarily driven by:

- Central governments or central banks RWAs increased by £9.2bn to £9.3bn primarily due to the Q3 2023 reclassification of DTAs from Other non credit-obligation assets partially offset by a reduction in Q4 2023
- Secured by mortgages on immovable property RWAs increased by £1.1bn to £5.0bn primarily due to the acquisition of KMC
- Corporate RWAs decreased by £1.5bn to £27.9bn primarily due to lending activities within CIB
- Other items decreased by £1.6bn to £0.3bn primarily due to a change in treatment of non-credit obligation exposures

Analysis of credit risk (continued)

Table 29: CR5 – Standardised approach

This table shows exposure at default post-CCF and CRM, broken down by Credit Exposure Class and risk weight. This table includes exposures subject to the standardised approach only

		Risk weight																
	As at 31 December 2023	0 %	2 %	4 %	10 %	20 %	35 %	50 %	70 %	75 %	100 %	150 %	250 %	370 %	1250 %	Others	Total	Of which unrated
1	Central governments or central banks[a]	305,450	—	—	—	—	—	—	—	—	213	—	3,621	—	—	—	309,284	3,899
2	Regional government or local authorities	1,950	—	—	—	3,937	—	—	—	—	—	—	—	—	—	—	5,887	3,922
3	Public sector entities	—	—	—	—	633	—	1	—	—	—	—	—	—	—	—	634	531
4	Multilateral development banks	5,975	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,975	—
5	International organisations	1,055	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,055	—
6	Institutions	—	—	—	—	5,660	—	853	—	—	93	—	—	—	—	—	6,606	430
7	Corporates	—	—	—	—	2,048	—	1,435	—	—	26,563	249	—	—	2	—	30,297	25,444
8	Retail	—	—	—	—	—	—	—	—	31,981	—	—	—	—	—	—	31,981	31,981
9	Secured by mortgages on immovable property	—	—	—	—	—	11,741	—	—	32	865	—	—	—	—	—	12,638	12,638
10	Exposures in default	—	—	—	—	—	—	—	—	—	1,072	690	—	—	—	—	1,762	1,762
11	Exposures associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	1,983	—	—	—	—	1,983	1,983
12	Covered bonds	—	—	—	1,107	62	—	—	—	—	—	—	—	—	—	—	1,169	—
13	Institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14	Unit or shares in collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	Equity	—	—	—	—	—	—	—	—	—	—	—	270	—	—	—	270	270
16	Other items	—	—	—	—	—	—	—	—	—	288	—	—	—	—	—	288	288
17	**Total**	314,430	—	—	1,107	12,340	11,741	2,289	—	32,013	29,094	2,922	3,891	—	2	—	409,829	83,148

Notes
a. In Q3 '23 Credit risk exposure of £3.9bn relating to DTAs were reclassified from other non credit-obligation asset class under IRB approach to Central Governments or central banks under STD approach.

Analysis of credit risk (continued)

Table 29: CR5 – Standardised approach - continued

As at 31 December 2022		Risk weight																
		0 %	2 %	4 %	10 %	20 %	35 %	50 %	70 %	75 %	100 %	150 %	250 %	370 %	1250 %	Others	Total	Of which unrated
1	Central governments or central banks	335,815	—	—	—	—	—	—	—	—	111	—	—	—	—	—	335,926	292
2	Regional government or local authorities	2,455	—	—	—	4,191	—	—	—	—	—	—	—	—	—	—	6,646	4,067
3	Public sector entities	26	—	—	—	802	—	1	—	—	—	—	—	—	—	—	829	759
4	Multilateral development banks	5,550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,550	—
5	International organisations	295	—	—	—	—	—	—	—	—	—	—	—	—	—	—	295	—
6	Institutions	—	—	—	—	5,022	—	884	—	—	413	—	—	—	—	—	6,319	459
7	Corporates	—	—	—	—	2,614	—	1,397	—	—	28,048	316	—	—	2	—	32,377	27,130
8	Retail	—	—	—	—	—	—	—	—	30,685	—	—	—	—	—	—	30,685	30,685
9	Secured by mortgages on immovable property	—	—	—	—	—	10,061	—	—	16	393	—	—	—	—	—	10,470	10,470
10	Exposures in default	—	—	—	—	—	—	—	—	—	1,104	921	—	—	—	—	2,025	2,025
11	Exposures associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	1,917	—	—	—	—	1,917	1,917
12	Covered bonds	—	—	—	294	—	—	—	—	—	—	—	—	—	—	—	294	—
13	Institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14	Unit or shares in collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	Equity	—	—	—	—	—	—	—	—	—	—	—	134	—	—	—	134	134
16	Other items	1,351	—	—	—	1,450	—	—	—	—	1,563	—	—	—	—	—	4,364	4,364
17	**Total**	345,492	—	—	294	14,079	10,061	2,282	—	30,701	31,632	3,154	134	—	2	—	437,831	82,302

Standardised Credit Risk Exposure Post-CCF and CRM decreased by £28.0bn to £409.8bn (December 2022: £437.8bn) primarily driven by:

- Central Government or central banks within the 0% risk weight category decreased due to a reduction in the liquidity pool
- Other items decreased due to a change in treatment of non credit-obligation exposures
- Corporates decreased primarily due to decrease in lending activities
- Secured by mortgages on immovable property increased primarily due to the acquisition of KMC

Analysis of credit risk (continued)

Table 30: CR7 – IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques

This table shows the effect of credit derivatives on the AIRB credit risk approach and will not directly reconcile to the CR AIRB RWAs in table 10.

		Pre-credit derivatives risk weighted exposure amount		Actual risk weighted exposure amount	
		As at 31 December 2023	As at 31 December 2022	As at 31 December 2023	As at 31 December 2022
		£m	£m	£m	£m
5	**Exposures under AIRB**	**105,576**	109,556	**105,572**	109,536
6	Central governments and central banks	**4,202**	3,402	**4,202**	3,402
7	Institutions	**4,138**	4,477	**4,138**	4,477
8	Corporates[a]	**50,554**	53,865	**50,550**	53,845
8.1	*of Corporates - which SMEs*	***7,728***	*8,281*	***7,728***	*8,281*
8.2	*of which Corporates - Specialised lending*	**—**	—	**—**	—
9	Retail	**46,682**	47,812	**46,682**	47,812
9.1	*of which Retail – SMEs - Secured by immovable property collateral*	**—**	—	**—**	—
9.2	*of which Retail – non-SMEs - Secured by immovable property collateral*	***26,223***	*27,669*	***26,223***	*27,669*
9.3	*of which Retail – Qualifying revolving*	***14,074***	*13,543*	***14,074***	*13,543*
9.4	*of which Retail – SMEs - Other*	***2,883***	*2,892*	***2,883***	*2,892*
9.5	*of which Retail – Non-SMEs- Other*	***3,502***	*3,708*	***3,502***	*3,708*
10	Total	**105,576**	109,556	**105,572**	109,536

Note

a Corporate specialised lending exposures under the slotting approach are excluded from this table and disclosed separately in CR10.

Analysis of credit risk (continued)

Table 31: CR7-A – IRB approach – Disclosure of the extent of the use of CRM techniques

This table shows the extent of the use of CRM techniques broken down by exposure classes under the IRB approach. The exposure classes capture both secured and unsecured balances, resulting in the CRM coverage percentages being calculated on an aggregate basis.

A-IRB		Credit risk Mitigation techniques												Credit risk Mitigation methods in the calculation of RWEAs	
			Funded credit Protection (FCP)									Unfunded credit Protection (UFCP)			
		Total exposures	Part of exposures covered by Financial Collaterals	Part of exposures covered by Other eligible collaterals	Part of exposures covered by Immovable property Collaterals	Part of exposures covered by Receivables	Part of exposures covered by Other physical collateral	Part of exposures covered by Other funded credit protection	Part of exposures covered by Cash on deposit	Part of exposures covered by Life insurance policies	Part of exposures covered by Instruments held by a third party	Part of exposures covered by Guarantees	Part of exposures covered by Credit Derivatives	RWEA post all CRM assigned to the obligor exposure class	RWEA with substitution effects
As at 31 December 2023		£m	%	%	%	%	%	%	%	%	%	%	%	£m	£m
1	Central governments and central banks	75,757	0.1%	—	—	—	—	—	—	—	—	—	—	4,202	4,202
2	Institutions	18,103	0.6%	1.0%	0.3%	—	0.7%	1.5%	1.5%	—	—	1.9%	—	4,138	4,138
3	Corporates	79,036	5.7%	19.1%	15.1%	0.6%	3.4%	—	—	—	—	2.4%	—	50,550	50,550
3.1	*Of which Corporates – SMEs*	*9,109*	*2.2%*	*75.9%*	*73.4%*	*2.0%*	*0.6%*	—	—	—	—	*1.6%*	—	*7,728*	*7,728*
3.2	*Of which Corporates – Specialised lending*	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3.3	*Of which Corporates – Other*	*69,927*	*6.2%*	*11.7%*	*7.5%*	*0.4%*	*3.8%*	—	—	—	—	*2.5%*	—	*42,822*	*42,822*
4	Retail	211,990	0.0%	206.1%	206.1%	—	0.0%	—	—	—	—	1.1%	—	46,682	46,682
4.1	*Of which Retail – Immovable property SMEs*	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4.2	*Of which Retail – Immovable property non-SMEs*	*169,208*	—	*256.1%*	*256.1%*	—	—	—	—	—	—	*1.3%*	—	*26,223*	*26,223*
4.3	*Of which Retail – Qualifying revolving*	*32,333*	—	—	—	—	—	—	—	—	—	—	—	*14,074*	*14,074*
4.4	*Of which Retail – Other SMEs*	*6,817*	*0.0%*	*53.4%*	*53.4%*	—	*0.1%*	—	—	—	—	*0.2%*	—	*2,883*	*2,883*
4.5	*Of which Retail – Other non-SMEs*	*3,632*	—	—	—	—	—	—	—	—	—	—	—	*3,502*	*3,502*
5	**Total**	**384,886**	**1.2%**	**117.5%**	**116.6%**	**0.1%**	**0.7%**	**0.1%**	**0.1%**	—	—	**1.2%**	—	**105,572**	**105,572**

Analysis of credit risk (continued)

Table 31: CR7-A – IRB approach – Disclosure of the extent of the use of CRM techniques - continued

A-IRB		Credit risk Mitigation techniques												Credit risk Mitigation methods in the calculation of RWEAs	
			Funded credit Protection (FCP)									Unfunded credit Protection (UFCP)			
		Total exposures	Part of exposures covered by Financial Collaterals	Part of exposures covered by Other eligible collaterals	Part of exposures covered by Immovable property Collaterals	Part of exposures covered by Receivables	Part of exposures covered by Other physical collateral	Part of exposures covered by Other funded credit protection	Part of exposures covered by Cash on deposit	Part of exposures covered by Life insurance policies	Part of exposures covered by Instruments held by a third party	Part of exposures covered by Guarantees	Part of exposures covered by Credit Derivatives	RWEA post all CRM assigned to the obligor exposure class	RWEA with substitution effects
As at 31 December 2022		£m	%	%	%	%	%	%	%	%	%	%	%	£m	£m
1	Central governments and central banks	71,555	0.2%	—	—	—	—	—	—	—	—	—	—	3,402	3,402
2	Institutions	18,588	0.7%	0.9%	0.3%	—	0.6%	1.5%	1.5%	—	—	3.6%	—	4,477	4,477
3	Corporates	83,691	5.8%	18.1%	14.2%	0.6%	3.4%	—	—	—	—	1.7%	0.2%	53,845	53,845
3.1	*Of which Corporates – SMEs*	*11,722*	*2.9%*	*61.4%*	*59.5%*	*1.6%*	*0.3%*	—	—	—	—	*1.4%*	—	*8,281*	*8,281*
3.2	*Of which Corporates – Specialised lending*	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3.3	*Of which Corporates – Other*	*71,969*	*6.2%*	*11.1%*	*6.8%*	*0.4%*	*3.9%*	—	—	—	—	*1.7%*	*0.2%*	*45,564*	*45,564*
4	Retail	217,660	0.0%	226.6%	226.6%	—	0.0%	—	—	—	—	1.2%	—	47,812	47,812
4.1	*Of which Retail – Immovable property SMEs*	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4.2	*Of which Retail – Immovable property non-SMEs*	*173,643*	—	*281.9%*	*281.9%*	—	—	—	—	—	—	*1.5%*	—	*27,669*	*27,669*
4.3	*Of which Retail – Qualifying revolving*	*32,739*	—	—	—	—	—	—	—	—	—	—	—	*13,543*	*13,543*
4.4	*Of which Retail – Other SMEs*	*7,267*	*0.0%*	*50.9%*	*50.8%*	—	*0.1%*	—	—	—	—	*0.4%*	—	*2,892*	*2,892*
4.5	*Of which Retail – Other non-SMEs*	*4,011*	—	—	—	—	—	—	—	—	—	—	—	*3,708*	*3,708*
5	**Total**	391,494	1.3%	129.9%	129.0%	0.1%	0.8%	0.1%	0.1%	—	—	1.2%	0.0%	109,536	109,536

Other eligible collaterals exposure cover decreased by 12.4% to 117.5% (December 2022: £129.9%) primarily driven by HPI refresh and reduction in lending.

Analysis of credit risk (continued)

Credit quality analysis of standardised exposures

Credit rating agencies

Under the standardised approach, ratings assigned by External Credit Assessment Institutions (ECAIs) are used in the calculation of RWAs. Ratings from an ECAI may be used where the ECAI is a rating agency that:

- Has been recognised as an ECAI per the list published by the Financial Conduct Authority (FCA); and
- Has been nominated for use by Barclays

Barclays uses ratings assigned by the following agencies for credit risk calculations:

- Standard & Poor's
- Moody's
- Fitch
- DBRS
- Kroll Bond Rating Agency

These ratings are used in the calculation of risk weights for the central governments and central banks, institutions, corporate and securitisation exposure classes[a].

Rated and unrated counterparties

The following section summarises the rules governing standardised calculations for non-securitised exposures.

Each exposure must be assigned to one of six credit quality steps if a rating is available, as per PRA Banking & Resolution index, detailed in the table below. After being assigned to a specific quality step, exposure class and maturity are then used to determine the risk weight percentage. The following tables are simplified version of the risk weight allocation process.

Table 32: Relationship of long-term external credit ratings to credit quality steps under the standardised approach for non-securitised exposures

Credit Quality Step	Standard and Poor's	Moody's	Fitch
Credit Quality Step 1	AAA+ to AA-	Aaa1 to Aa3	AAA+ to AA-
Credit Quality Step 2	A+ to A-	A1 to A3	A+ to A-
Credit Quality Step 3	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-
Credit Quality Step 4	BB+ to BB-	Ba1 to Ba3	BB+ to BB-
Credit Quality Step 5	B+ to B-	B1 to B3	B+ to B-
Credit Quality Step 6	CCC+ and below	Caa1 and below	CCC+ and below

Table 33: Credit quality steps and risk weights under the standardised approach

This table shows the prescribed risk weights associated with credit quality steps.

Credit Quality Step		Institutions (includes banks)			
		Sovereign method	Credit assessment method		
	Corporates	Sovereign method	Maturity > 3 months	Maturity 3 months or less	Central governments or central banks
Credit Quality Step 1	20%	20%	20%	20%	0%
Credit Quality Step 2	50%	50%	50%	20%	20%
Credit Quality Step 3	100%	100%	50%	20%	50%
Credit Quality Step 4	100%	100%	100%	50%	100%
Credit Quality Step 5	150%	100%	100%	50%	100%
Credit Quality Step 6	150%	150%	150%	150%	150%

Exposures to international organisations are assigned a 0% risk weight.

Exposures fully and completely secured by residential property (which considers, among the other criteria, the size of the loan relative to the value of the property) are generally assigned a risk weight of 35%. Other retail exposures are assigned a risk weight of 75%.

The unsecured portion of a past due exposure is assigned a risk weight of either 150% or 100%, depending on the specific credit risk adjustments recognised.

High risk items are assigned a risk weight of 150%.

Note

a DBRS and Kroll Bond Rating Agency are used to calculate risk weights for securitisation exposures only. Please see page 163 for further details.

Analysis of credit risk (continued)

Credit quality analysis of IRB exposures

The following section provides a breakdown of inputs for the calculation of risk weighted assets. Please note, there may be more volatility in risk weights and risk factors at a granular level of wholesale exposures, especially in minimum exposure categories often due to the addition or removal of relatively large exposures when the risk factor deviates from the category average. This happens in the normal course of business, following new lending, repayments, or syndications. For more information on IRB models see page 134.

Table 34: Internal default grade probabilities and mapping to external ratings

The table below illustrates the approximate relationship between external rating agency grades and the PD bands for wholesale exposures. The internal Default Grade (DG) bands are based on Through the Cycle (TTC) PD. Note that this relationship is dynamic, and therefore, varies over time, region and industry.

PD Range %		Default Probability			Financial statements description	Moody's	Standard and Poor's
	Internal DG Band	>Min	Mid	<=Max			
0.00 to < 0.15	1	0.00%	0.01%	0.02%	Strong	Aaa, Aa1, Aa2	AAA, AA+, AA
	2	0.02%	0.03%	0.03%		Aa3	AA-
	3	0.03%	0.04%	0.05%		A1, A2, A3	A+
	4	0.05%	0.08%	0.10%		A1, A2, A3	A, A-
	5	0.10%	0.13%	0.15%		Baa1	BBB+
0.15 to < 0.25	6	0.15%	0.18%	0.20%	Strong	Baa2	BBB
	7	0.20%	0.23%	0.25%		Baa2	BBB
0.25 to < 0.50	8	0.25%	0.28%	0.30%	Strong	Baa3	BBB-
	9	0.30%	0.35%	0.40%		Baa3	BBB-
	10	0.40%	0.45%	0.50%		Ba1	BB+
0.50 to < 0.75	11	0.50%	0.55%	0.60%	Strong	Ba1	BB+
	12	0.60%	0.68%	0.75%	Satisfactory	Ba1, Ba2	BB, BB-
0.75 to < 2.50	12	0.75%	0.98%	1.20%	Satisfactory	Ba1, Ba2, Ba3	BB, BB-
	13	1.20%	1.38%	1.55%		Ba3	BB-
	14	1.55%	1.85%	2.15%		Ba3	B+
	15	2.15%	2.33%	2.50%		B1	B+
2.50 to < 10.00	15	2.50%	2.78%	3.05%	Satisfactory	B1	B+
	16	3.05%	3.75%	4.45%		B2	B+
	17	4.45%	5.40%	6.35%		B3, Caa1	B
	18	6.35%	7.50%	8.65%		B3, Caa1	B-
	19	8.65%	9.32%	10.00%		B3, Caa1	B-
10.00 to < 100.00	19	10.00%	10.67%	11.35%	Satisfactory	B3, Caa1	B-
	20	11.35%	15.00%	18.65%	Higher Risk	Caa2	CCC+
	21	18.65%	30.00%	99.99%		Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C
100.00 (Default)	22	100 %	100 %	100 %	Credit Impaired	D	D

Analysis of credit risk (continued)

Table 35: CR6-A – Scope of the use of IRB and SA approaches

The table below shows exposure and percentages covered by the IRB and standardised approaches, as well as exposure subject to the permanent partial use and to a roll out plan.

		Exposure value as defined in Article 166 CRR for exposures subject to IRB approach	Total exposure value for exposures subject to the Standardised approach and to the IRB approach	Percentage of total exposure value subject to the permanent partial use of the SA	Percentage of total exposure value subject to IRB Approach	Percentage of total exposure value subject to a roll-out plan
31 December 2023		**£m**	**£m**	**%**	**%**	**%**
1	Central governments or central banks[a]	**75,796**	**384,452**	**73.3%**	**19.7%**	**7.0%**
1.1	*Of which Regional governments or local authorities*		***7,771***	***54.1%***	***30.2%***	***15.7%***
1.2	*Of which Public sector entities*		***7,762***	***88.9%***	**—**	***11.1%***
2	Institutions	**24,144**	**33,013**	**—**	**73.1%**	**26.9%**
3	Corporates	**121,797**	**201,241**	**—**	**60.5%**	**39.5%**
3.1	*Of which Corporates - Specialised lending, excluding slotting approach*		**—**	**—**	**—**	**—**
3.2	*Of which Corporates - Specialised lending under slotting approach*		***6,842***	**—**	***100.0%***	**—**
4	Retail	**233,356**	**399,506**	**—**	**58.4%**	**41.6%**
4.1	*of which Retail – Secured by real estate SMEs*		***0***	**—**	**—**	**—**
4.2	*of which Retail – Secured by real estate non-SMEs*		***180,888***	**—**	***94.4%***	***5.6%***
4.3	*of which Retail – Qualifying revolving*		***198,880***	**—**	***26.5%***	***73.5%***
4.4	*of which Retail – Other SMEs*		***10,082***	**—**	***61.7%***	***38.3%***
4.5	*of which Retail – Other non-SMEs*		***9,656***	**—**	***37.6%***	***62.4%***
5	Equity	**—**	**2,272**	**—**	**—**	**100.0%**
6	Other non-credit obligation assets[a]	**10,629**	**10,917**	**—**	**97.4%**	**2.6%**
7	**Total**	**465,722**	**1,031,401**	**27.3%**	**45.2%**	**27.5%**
31 December 2022						
1	Central governments or central banks	71,594	402,821	75.3%	17.8%	6.9%
1.1	*Of which Regional governments or local authorities*		*7,928*	*58.1%*	*26.5%*	*15.4%*
1.2	*Of which Public sector entities*		*7,647*	*91.2%*	—	*8.8%*
2	Institutions	23,906	31,456	—	76.0%	24.0%
3	Corporates	130,362	211,346	—	61.7%	38.3%
3.1	*Of which Corporates - Specialised lending, excluding slotting approach*		—	—	—	—
3.2	*Of which Corporates - Specialised lending under slotting approach*		*7,893*	—	*100.0%*	—
4	Retail	242,870	405,729	—	59.9%	40.1%
4.1	*of which Retail – Secured by real estate SMEs*		*4*	—	—	*100.0%*
4.2	*of which Retail – Secured by real estate non-SMEs*		*184,734*	—	*95.6%*	*4.4%*
4.3	*of which Retail – Qualifying revolving*		*199,097*	—	*27.9%*	*72.1%*
4.4	*of which Retail – Other SMEs*		*12,140*	—	*55.0%*	*45.0%*
4.5	*of which Retail – Other non-SMEs*		*9,754*	—	*41.1%*	*58.9%*
5	Equity	—	2,052	—	—	100.0%
6	Other non-credit obligation assets	10,288	14,656	25.2%	70.2%	4.6%
7	**Total**	479,020	1,068,060	28.8%	44.9%	26.3%

Notes

a In Q3 '23 Credit risk exposure of £3.9bn relating to DTAs were reclassified from other non credit-obligation asset class under IRB approach to Central Governments or central banks under STD approach.

Analysis of credit risk (continued)

AIRB obligor grade disclosure

The following tables show credit risk exposure at default post-CRM for the advanced IRB approach for portfolios within the banking book. Separate tables are provided for the following credit exposure classes: central governments and central banks (table 37), institutions (table 38), corporates (table 39), corporates SME (table 40), retail SME (table 41), secured retail (table 42), revolving retail (table 43) and other retail (table 44).

Barclays' Model Risk Management group reviews and approves the application of post model adjustments to models that do not fully reflect the risk of the underlying exposures.

Table 36: CR6 – IRB approach – Total Portfolios

	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2023	£m	£m	%	£m	%		%		£m	%	£m	£m
Total (all exposure classes)	**313,509**	**134,742**	**51.8%**	**380,448**		**24,028,888**		**2**	**105,572**	**27.7%**	**2,867**	**(2,705)**
As at 31 December 2022												
Total (all exposure classes)	315,001	145,838	51.8%	386,459		24,816,027		2	109,534	28.3%	2,861	(2,977)

Further information on the key drivers for the RWA density are provided in table 37 - table 44.

Analysis of credit risk (continued)

Table 37: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for central governments and central banks

PD range As at 31 December 2023	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	75,081	97	60.0%	75,030	0.0%	26	45.0%	2	3,667	4.9%	3	0
0.00 to <0.10	75,081	97	60.0%	75,030	0.0%	26	45.0%	2	3,667	4.9%	3	0
0.10 to <0.15	—	—	—	—	—	—	—	—	—	—	—	—
0.15 to <0.25	11	—	—	11	—	2	45.0%	1	4	37.8%	0	—
0.25 to <0.50	590	—	—	590	0.4%	3	45.0%	3	432	73.3%	1	0
0.50 to <0.75	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <2.50	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <1.75	—	—	—	—	—	—	—	—	—	—	—	—
1.75 to <2.5	—	—	—	—	—	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—	—	—	—	—	—
2.5 to <5	—	—	—	—	—	—	—	—	—	—	—	—
5 to <10	—	—	—	—	—	—	—	—	—	—	—	—
10.00 to <100.00	17	—	—	17	31.6%	1	78.0%	5	98	582.3%	4	—
10 to <20	—	—	—	—	—	—	—	—	—	—	—	—
20 to <30	—	—	—	—	—	—	—	—	—	—	—	—
30.00 to <100.00	17	—	—	17	31.6%	1	78.0%	5	98	582.3%	4	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal (exposure class)	75,699	97	60.0%	75,648	0.0%	32	45.0%	2	4,201	5.6%	8	—

Analysis of credit risk (continued)

Table 37: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for central governments and central banks - continued

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2022	£m	£m	%	£m	%		%		£m	%	£m	£m
0.00 to <0.15	70,836	97	60.0%	70,752	0.0%	26	45.0%	2	2,915	4.1%	2	0
0.00 to <0.10	*70,836*	*97*	*60.0%*	*70,752*	*0.0%*	*26*	*45.0%*	*2*	*2,915*	*4.1%*	*2*	*0*
0.10 to <0.15	—	—	—	—	—	—	—	—	—	—	—	—
0.15 to <0.25	—	—	—	—	—	—	—	—	—	—	—	—
0.25 to <0.50	651	—	—	651	0.4%	3	45.0%	3	479	73.6%	1	(5)
0.50 to <0.75	9	—	—	9	0.6%	1	45.0%	3	8	86.7%	0	0
0.75 to <2.50	—	—	—	—	—	—	—	—	—	—	—	—
0.75 to <1.75	—	—	—	—	—	—	—	—	—	—	—	—
1.75 to <2.5	—	—	—	—	—	—	—	—	—	—	—	—
2.50 to <10.00	—	—	—	—	—	—	—	—	—	—	—	—
2.5 to <5	—	—	—	—	—	—	—	—	—	—	—	—
5 to <10	—	—	—	—	—	—	—	—	—	—	—	—
10.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
10 to <20	—	—	—	—	—	—	—	—	—	—	—	—
20 to <30	—	—	—	—	—	—	—	—	—	—	—	—
30.00 to <100.00	—	—	—	—	—	—	—	—	—	—	—	—
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal (exposure class)	71,496	97	60.0%	71,412	0.0%	30	45.0%	2	3,402	4.8%	3	(5)

The RWA density associated with central governments and central banks remained broadly stable at 5.6% (December 2022: 4.8%).

Analysis of credit risk (continued)

Table 38: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for institutions

PD range As at 31 December 2023	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF[a] %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	12,068	9,497	49.3%	16,762	0.1%	412	40.4%	2	3,145	18.8%	3	(11)
0.00 to <0.10	*11,052*	*9,457*	*49.3%*	*15,728*	*0.0%*	*401*	*40.8%*	*2*	*2,925*	*18.6%*	*3*	*(10)*
0.10 to <0.15	*1,016*	*40*	*45.6%*	*1,034*	*0.1%*	*11*	*33.8%*	*1*	*220*	*21.3%*	*0*	*(1)*
0.15 to <0.25	51	127	54.9%	121	0.2%	32	52.9%	1	73	60.3%	0	0
0.25 to <0.50	102	57	53.4%	133	0.3%	40	50.5%	2	96	71.8%	0	0
0.50 to <0.75	23	1,040	16.8%	198	0.6%	56	40.2%	1	122	61.5%	1	0
0.75 to <2.50	121	437	35.2%	274	1.7%	239	41.9%	2	316	115.7%	2	(1)
0.75 to <1.75	*27*	*70*	*87.2%*	*88*	*1.1%*	*169*	*33.9%*	*1*	*69*	*79.0%*	*0*	*0*
1.75 to <2.5	*94*	*367*	*25.3%*	*186*	*1.9%*	*70*	*45.7%*	*2*	*247*	*133.1%*	*2*	*(1)*
2.50 to <10.00	371	168	48.8%	453	3.4%	96	20.2%	1	307	68.0%	3	(3)
2.5 to <5	*355*	*133*	*47.6%*	*418*	*3.1%*	*65*	*18.0%*	*1*	*231*	*55.3%*	*2*	*(1)*
5 to <10	*16*	*35*	*53.3%*	*35*	*7.1%*	*31*	*46.7%*	*2*	*76*	*220.7%*	*1*	*(2)*
10.00 to <100.00	25	34	73.4%	50	14.7%	17	20.6%	3	62	123.3%	1	(2)
10 to <20	*24*	*34*	*73.3%*	*49*	*14.3%*	*14*	*20.5%*	*3*	*61*	*123.5%*	*1*	*(2)*
20 to <30	*0*	*—*	*—*	*0*	*23.4%*	*1*	*77.7%*	*1*	*0*	*420.6%*	*0*	*0*
30.00 to <100.00	*1*	*0*	*415.0%*	*1*	*44.8%*	*2*	*20.2%*	*3*	*1*	*98.0%*	*0*	*0*
100.00 (Default)	22	1	49.2%	23	100.0%	6	28.2%	1	17	74.1%	0	0
Subtotal (exposure class)	12,783	11,361	46.7%	18,014	0.3%	898	40.0%	2	4,138	23.0%	10	(17)

Analysis of credit risk (continued)

Table 38: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for institutions - continued

PD range As at 31 December 2022	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF[a] %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	10,770	9,487	48.7%	15,401	0.0%	426	41.4%	2	2,899	18.8%	2	(9)
0.00 to <0.10	*10,419*	*9,419*	*48.6%*	*15,006*	*0.0%*	*398*	*41.2%*	*2*	*2,768*	*18.4%*	*2*	*(9)*
0.10 to <0.15	*351*	*68*	*63.6%*	*395*	*0.1%*	*28*	*48.7%*	*1*	*131*	*33.3%*	*0*	*0*
0.15 to <0.25	1,798	487	68.8%	2,133	0.2%	35	33.7%	2	728	34.1%	1	(1)
0.25 to <0.50	64	50	50.1%	90	0.3%	33	55.3%	2	76	85.0%	0	0
0.50 to <0.75	7	24	61.7%	21	0.7%	56	63.9%	1	30	140.0%	0	0
0.75 to <2.50	112	422	34.3%	256	1.5%	251	41.5%	1	275	107.0%	2	(1)
0.75 to <1.75	*37*	*401*	*33.5%*	*171*	*1.1%*	*186*	*37.8%*	*1*	*141*	*82.0%*	*1*	*(1)*
1.75 to <2.5	*75*	*21*	*49.5%*	*85*	*2.3%*	*65*	*49.0%*	*2*	*134*	*156.9%*	*1*	*0*
2.50 to <10.00	405	64	54.1%	439	3.5%	85	21.3%	2	321	73.2%	3	0
2.5 to <5	*366*	*52*	*53.0%*	*393*	*2.9%*	*58*	*20.1%*	*2*	*253*	*64.5%*	*2*	*0*
5 to <10	*39*	*12*	*58.6%*	*46*	*8.5%*	*27*	*31.6%*	*2*	*68*	*147.6%*	*1*	*0*
10.00 to <100.00	24	176	54.1%	120	17.5%	30	18.8%	3	131	109.7%	3	(3)
10 to <20	*3*	*154*	*48.9%*	*79*	*12.6%*	*20*	*22.2%*	*3*	*98*	*124.6%*	*2*	*(2)*
20 to <30	*20*	*22*	*89.8%*	*40*	*26.3%*	*3*	*11.8%*	*2*	*30*	*76.1%*	*1*	*(1)*
30.00 to <100.00	*1*	*0*	*114.4%*	*1*	*43.9%*	*7*	*32.3%*	*2*	*3*	*275.0%*	*0*	*0*
100.00 (Default)	13	1	15.9%	13	100.0%	5	12.1%	2	17	125.9%	0	0
Subtotal (exposure class)	13,193	10,711	50.1%	18,473	0.3%	921	39.9%	2	4,477	24.2%	11	(14)

Note
a CCF is calculated on a weighted average basis and also reflects where the modelled EAD is higher than the on- and off-balance sheet exposures pre CCF.

The RWA density associated with institutions decreased by 1.2% to 23% (December 2022: 24.2%) primarily due to changes in risk parameters.

Analysis of credit risk (continued)

Table 39: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for corporates - other

PD range As at 31 December 2023	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	12,440	41,274	48.5%	31,316	0.1%	1,755	41.2%	3	8,397	26.8%	8	(11)
0.00 to <0.10	*10,799*	*36,333*	*48.3%*	*27,410*	*0.1%*	*1,335*	*41.4%*	*3*	*6,872*	*25.1%*	*6*	*(6)*
0.10 to <0.15	*1,641*	*4,941*	*49.7%*	*3,906*	*0.1%*	*420*	*39.4%*	*3*	*1,525*	*39.1%*	*2*	*(5)*
0.15 to <0.25	6,114	7,099	57.8%	9,204	0.2%	582	34.1%	2	3,708	40.3%	7	(9)
0.25 to <0.50	4,955	5,754	54.6%	7,899	0.3%	1,072	44.4%	3	5,380	68.1%	12	(11)
0.50 to <0.75	1,115	2,603	49.6%	2,338	0.6%	1,664	36.8%	2	1,771	75.7%	6	(6)
0.75 to <2.50	2,356	4,363	52.9%	4,440	1.4%	7,369	33.9%	3	4,124	92.9%	23	(41)
0.75 to <1.75	*1,672*	*3,124*	*52.6%*	*3,256*	*1.2%*	*5,345*	*33.7%*	*3*	*2,901*	*89.1%*	*14*	*(22)*
1.75 to <2.5	*684*	*1,239*	*53.5%*	*1,184*	*2.0%*	*2,024*	*34.5%*	*2*	*1,223*	*103.4%*	*9*	*(19)*
2.50 to <10.00	2,563	6,312	50.8%	5,408	5.9%	6,082	27.2%	3	6,182	114.3%	91	(202)
2.5 to <5	*880*	*2,516*	*48.9%*	*1,867*	*3.4%*	*4,349*	*25.9%*	*2*	*1,644*	*88.1%*	*17*	*(48)*
5 to <10	*1,683*	*3,796*	*52.0%*	*3,541*	*7.2%*	*1,733*	*27.9%*	*3*	*4,538*	*128.1%*	*74*	*(154)*
10.00 to <100.00	3,630	3,537	48.6%	5,224	18.9%	892	37.2%	4	12,668	242.5%	371	(296)
10 to <20	*3,192*	*3,001*	*48.7%*	*4,530*	*16.6%*	*626*	*37.5%*	*4*	*11,024*	*243.3%*	*288*	*(210)*
20 to <30	*63*	*352*	*48.3%*	*233*	*24.0%*	*65*	*29.8%*	*2*	*458*	*196.6%*	*16*	*(58)*
30.00 to <100.00	*375*	*184*	*47.6%*	*461*	*38.8%*	*201*	*37.8%*	*2*	*1,186*	*257.1%*	*67*	*(28)*
100.00 (Default)	357	153	60.8%	433	100.0%	185	33.2%	2	592	136.7%	87	(110)
Subtotal (exposure class)	33,530	71,095	50.6%	66,262	2.8%	19,601	38.4%	3	42,822	64.6%	605	(686)

Analysis of credit risk (continued)

Table 39: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for corporates - other - continued

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2022	£m	£m	%	£m	%		%		£m	%	£m	£m
0.00 to <0.15	14,885	44,479	48.4%	35,462	0.1%	1,563	40.0%	3	9,201	25.9%	10	(14)
0.00 to <0.10	*13,330*	*39,156*	*48.4%*	*31,534*	*0.1%*	*1,213*	*40.1%*	*3*	*7,690*	*24.4%*	*7*	*(10)*
0.10 to <0.15	*1,555*	*5,323*	*48.4%*	*3,928*	*0.1%*	*350*	*38.8%*	*3*	*1,511*	*38.5%*	*3*	*(4)*
0.15 to <0.25	2,827	6,147	51.0%	4,998	0.2%	537	43.3%	3	2,473	49.5%	5	(11)
0.25 to <0.50	4,202	6,308	54.7%	7,430	0.3%	814	40.6%	3	4,759	64.0%	11	(28)
0.50 to <0.75	1,305	2,035	54.7%	2,367	0.6%	1,037	40.3%	3	1,964	83.0%	6	(12)
0.75 to <2.50	2,736	5,580	44.8%	4,881	1.4%	3,067	29.9%	3	3,918	80.3%	22	(52)
0.75 to <1.75	*1,921*	*4,022*	*41.9%*	*3,447*	*1.2%*	*2,225*	*29.5%*	*3*	*2,565*	*74.4%*	*13*	*(30)*
1.75 to <2.5	*815*	*1,558*	*52.4%*	*1,434*	*2.0%*	*842*	*30.9%*	*3*	*1,353*	*94.3%*	*9*	*(22)*
2.50 to <10.00	3,700	5,661	53.8%	6,020	5.3%	3,337	30.6%	3	7,771	129.1%	102	(162)
2.5 to <5	*1,647*	*2,735*	*57.3%*	*3,065*	*3.7%*	*2,451*	*27.1%*	*3*	*3,104*	*101.3%*	*30*	*(55)*
5 to <10	*2,053*	*2,926*	*50.5%*	*2,955*	*7.0%*	*886*	*34.4%*	*3*	*4,667*	*157.9%*	*72*	*(107)*
10.00 to <100.00	4,542	4,219	49.6%	6,609	16.2%	618	36.4%	4	14,824	224.3%	386	(338)
10 to <20	*4,016*	*3,860*	*49.5%*	*5,916*	*14.3%*	*511*	*36.7%*	*4*	*13,214*	*223.4%*	*311*	*(291)*
20 to <30	*101*	*171*	*46.4%*	*181*	*23.8%*	*41*	*33.2%*	*2*	*387*	*214.6%*	*14*	*(16)*
30.00 to <100.00	*425*	*188*	*56.0%*	*512*	*35.9%*	*66*	*34.4%*	*3*	*1,223*	*239.0%*	*61*	*(31)*
100.00 (Default)	319	203	55.6%	401	100.0%	192	40.3%	2	653	163.0%	123	(169)
Subtotal (exposure class)	34,516	74,632	49.7%	68,168	2.8%	11,165	38.4%	3	45,563	66.8%	665	(786)

The RWA density associated with corporates - other decreased by 2.2% to 64.6% (December 2022:66.8%) primarily due to reduction in balances across PD bands, partially offset by a recalibration of the PMA introduced to address the IRB roadmap changes.

Analysis of credit risk (continued)

Table 40: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for corporates - SME

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2023	**£m**	**£m**	**%**	**£m**	**%**		**%**		**£m**	**%**	**£m**	**£m**
0.00 to <0.15	**1,004**	**557**	**64.1%**	**1,314**	**0.1%**	**377**	**22.4%**	**4**	**350**	**26.7%**	**0**	**(29)**
0.00 to <0.10	***723***	***463***	***65.2%***	***1,029***	***0.1%***	***262***	***18.8%***	***4***	***237***	***23.1%***	***0***	***(21)***
0.10 to <0.15	***281***	***94***	***58.8%***	***285***	***0.1%***	***115***	***35.2%***	***4***	***113***	***39.6%***	***0***	***(8)***
0.15 to <0.25	**246**	**91**	**54.0%**	**298**	**0.2%**	**118**	**33.9%**	**4**	**133**	**44.7%**	**0**	**(7)**
0.25 to <0.50	**859**	**311**	**39.6%**	**953**	**0.4%**	**1,193**	**29.5%**	**3**	**371**	**39.0%**	**2**	**(1)**
0.50 to <0.75	**952**	**338**	**41.0%**	**1,057**	**0.6%**	**2,478**	**26.7%**	**3**	**434**	**41.1%**	**3**	**(1)**
0.75 to <2.50	**2,775**	**561**	**45.2%**	**2,909**	**1.4%**	**9,397**	**26.5%**	**3**	**2,322**	**79.8%**	**38**	**(17)**
0.75 to <1.75	***1,996***	***438***	***44.4%***	***2,109***	***1.2%***	***7,295***	***25.9%***	***3***	***1,549***	***73.4%***	***22***	***(6)***
1.75 to <2.5	***779***	***123***	***48.1%***	***800***	***2.0%***	***2,102***	***28.1%***	***3***	***773***	***96.7%***	***16***	***(11)***
2.50 to <10.00	**1,170**	**232**	**50.5%**	**1,203**	**4.5%**	**3,419**	**31.3%**	**3**	**1,982**	**164.7%**	**102**	**(55)**
2.5 to <5	***742***	***148***	***52.6%***	***758***	***3.4%***	***2,384***	***32.1%***	***3***	***1,166***	***153.8%***	***43***	***(14)***
5 to <10	***428***	***84***	***46.8%***	***445***	***6.6%***	***1,035***	***29.9%***	***3***	***816***	***183.3%***	***59***	***(41)***
10.00 to <100.00	**386**	**36**	**35.5%**	**388**	**20.1%**	**541**	**28.3%**	**3**	**608**	**157.3%**	**89**	**(18)**
10 to <20	***278***	***25***	***36.7%***	***278***	***14.1%***	***371***	***28.6%***	***3***	***370***	***133.3%***	***31***	***(12)***
20 to <30	***47***	***5***	***14.8%***	***47***	***24.0%***	***62***	***29.3%***	***2***	***51***	***109.2%***	***3***	***(3)***
30.00 to <100.00	***61***	***6***	***47.5%***	***63***	***43.6%***	***108***	***26.5%***	***3***	***187***	***299.3%***	***55***	***(3)***
100.00 (Default)	**741**	**68**	**13.0%**	**725**	**100.0%**	**409**	**14.7%**	**2**	**1,526**	**210.6%**	**183**	**(36)**
Subtotal (exposure class)	**8,133**	**2,194**	**48.6%**	**8,847**	**10.3%**	**17,932**	**26.2%**	**3**	**7,726**	**87.4%**	**417**	**(164)**

Analysis of credit risk (continued)

Table 40: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for corporates - SME - continued

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2022	£m	£m	%	£m	%		%		£m	%	£m	£m
0.00 to <0.15	1,164	916	65.4%	1,739	0.1%	838	26.9%	4	428	24.6%	0	0
0.00 to <0.10	*793*	*820*	*66.3%*	*1,338*	*0.1%*	*637*	*23.7%*	*4*	*262*	*19.6%*	*0*	*0*
0.10 to <0.15	*371*	*96*	*57.5%*	*401*	*0.1%*	*201*	*37.6%*	*5*	*166*	*41.4%*	*0*	*0*
0.15 to <0.25	291	89	65.5%	351	0.2%	199	33.0%	4	149	42.5%	0	(1)
0.25 to <0.50	1,044	439	42.4%	1,181	0.4%	1,755	33.1%	3	473	40.0%	3	(4)
0.50 to <0.75	1,294	362	41.2%	1,357	0.6%	2,864	25.1%	3	487	35.9%	3	(4)
0.75 to <2.50	3,438	734	45.5%	3,555	1.4%	14,689	26.6%	3	2,301	64.7%	42	(53)
0.75 to <1.75	*2,544*	*566*	*43.7%*	*2,635*	*1.2%*	*11,250*	*26.7%*	*3*	*1,596*	*60.6%*	*25*	*(27)*
1.75 to <2.5	*894*	*168*	*51.4%*	*920*	*2.0%*	*3,439*	*26.5%*	*3*	*705*	*76.6%*	*17*	*(26)*
2.50 to <10.00	1,514	417	67.0%	1,567	4.6%	5,769	34.4%	3	2,117	135.1%	118	(98)
2.5 to <5	*1,028*	*199*	*55.1%*	*954*	*3.3%*	*4,069*	*33.8%*	*3*	*1,200*	*125.8%*	*51*	*(45)*
5 to <10	*486*	*218*	*78.0%*	*613*	*6.6%*	*1,700*	*35.4%*	*2*	*917*	*149.5%*	*67*	*(53)*
10.00 to <100.00	406	74	58.7%	406	19.7%	918	35.1%	3	705	173.1%	103	(101)
10 to <20	*278*	*51*	*52.8%*	*278*	*14.1%*	*591*	*35.3%*	*3*	*429*	*153.9%*	*37*	*(44)*
20 to <30	*49*	*2*	*42.7%*	*45*	*23.8%*	*120*	*29.4%*	*2*	*52*	*115.3%*	*3*	*(51)*
30.00 to <100.00	*79*	*21*	*74.5%*	*83*	*35.9%*	*207*	*37.7%*	*2*	*224*	*268.4%*	*63*	*(6)*
100.00 (Default)	964	178	65.0%	1,009	100.0%	571	14.4%	3	1,621	160.6%	126	(75)
Subtotal (exposure class)	10,115	3,209	55.3%	11,165	11.0%	27,603	27.7%	3	8,281	74.2%	395	(336)

The RWA density associated with corporates SME increased by 13.2% to 87.4% (December 2022:74.2%) primarily due to recalibration of the PMA introduced to address the IRB roadmap changes.

Analysis of credit risk (continued)

Table 41: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for retail - SME

PD range As at 31 December 2023	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF[a] %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	10	1	19,097.6%	227	0.1%	140,101	47.1%	21	9.0%	0	0
0.00 to <0.10	*4*	*0*	*109,611.5%*	*171*	*0.1%*	*110,367*	*45.8%*	*13*	*7.5%*	*0*	*0*
0.10 to <0.15	*6*	*1*	*5,113.4%*	*56*	*0.1%*	*29,734*	*51.1%*	*8*	*13.4%*	*0*	*0*
0.15 to <0.25	15	6	555.8%	46	0.2%	15,122	41.7%	7	15.1%	0	0
0.25 to <0.50	167	92	136.0%	288	0.4%	55,354	32.2%	54	18.8%	0	0
0.50 to <0.75	378	153	145.5%	576	0.6%	94,053	33.0%	139	24.2%	1	0
0.75 to <2.50	1,940	730	117.3%	2,659	1.5%	405,670	36.8%	954	35.9%	15	(9)
0.75 to <1.75	*1,248*	*507*	*129.5%*	*1,808*	*1.2%*	*306,624*	*36.7%*	*616*	*34.1%*	*8*	*(4)*
1.75 to <2.5	*692*	*223*	*89.7%*	*851*	*2.1%*	*99,046*	*37.0%*	*338*	*39.7%*	*7*	*(5)*
2.50 to <10.00	1,430	355	123.1%	1,801	4.6%	216,478	39.8%	882	49.0%	33	(19)
2.5 to <5	*960*	*276*	*106.9%*	*1,204*	*3.5%*	*141,579*	*38.5%*	*554*	*46.0%*	*16*	*(11)*
5 to <10	*470*	*79*	*179.4%*	*597*	*6.9%*	*74,899*	*42.3%*	*328*	*55.0%*	*17*	*(8)*
10.00 to <100.00	359	30	236.6%	422	23.9%	48,083	35.3%	257	60.8%	33	(10)
10 to <20	*187*	*13*	*386.6%*	*235*	*13.6%*	*31,472*	*40.5%*	*148*	*63.0%*	*13*	*(4)*
20 to <30	*49*	*4*	*231.8%*	*56*	*24.2%*	*6,255*	*30.6%*	*35*	*61.3%*	*4*	*(1)*
30.00 to <100.00	*123*	*13*	*87.5%*	*131*	*42.1%*	*10,356*	*28.0%*	*74*	*56.5%*	*16*	*(5)*
100.00 (Default)	528	31	31.9%	486	100.0%	52,545	23.8%	569	117.2%	70	(220)
Subtotal (exposure class)	**4,827**	**1,398**	**141.0%**	**6,505**	**11.0%**	**1,027,406**	**36.4%**	**2,883**	**44.3%**	**152**	**(258)**

Analysis of credit risk (continued)

Table 41: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for retail - SME - continued

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF[a]	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2022	£m	£m	%	£m	%		%	£m	%	£m	£m
0.00 to <0.15	21	4	6,425.3%	260	0.1%	155,583	45.3%	22	8.6%	0	0
0.00 to <0.10	*7*	*1*	*15,310.1%*	*188*	*0.1%*	*121,628*	*44.3%*	*13*	*7.2%*	*0*	*0*
0.10 to <0.15	*14*	*3*	*2,317.2%*	*72*	*0.1%*	*33,955*	*47.9%*	*9*	*12.4%*	*0*	*0*
0.15 to <0.25	44	24	176.8%	85	0.2%	19,700	32.5%	10	11.3%	0	0
0.25 to <0.50	257	167	84.1%	376	0.4%	56,944	31.2%	65	17.3%	0	0
0.50 to <0.75	358	206	119.6%	566	0.6%	104,739	35.0%	141	24.8%	1	(1)
0.75 to <2.50	2,037	771	115.3%	2,713	1.5%	443,601	36.5%	957	35.3%	14	(17)
0.75 to <1.75	*1,314*	*582*	*119.1%*	*1,860*	*1.2%*	*335,564*	*36.9%*	*630*	*33.8%*	*8*	*(9)*
1.75 to <2.5	*723*	*189*	*103.8%*	*853*	*2.1%*	*108,037*	*35.5%*	*327*	*38.4%*	*6*	*(8)*
2.50 to <10.00	1,657	256	163.9%	1,983	4.6%	216,717	38.5%	939	47.4%	35	(25)
2.5 to <5	*1,140*	*196*	*139.6%*	*1,343*	*3.5%*	*141,483*	*37.9%*	*608*	*45.3%*	*18*	*(15)*
5 to <10	*517*	*60*	*243.6%*	*640*	*6.9%*	*75,234*	*39.6%*	*331*	*51.8%*	*17*	*(10)*
10.00 to <100.00	373	28	286.6%	443	24.0%	51,998	37.1%	285	64.2%	38	(14)
10 to <20	*199*	*13*	*456.7%*	*253*	*13.6%*	*33,919*	*40.2%*	*161*	*63.5%*	*14*	*(6)*
20 to <30	*53*	*3*	*289.1%*	*62*	*24.0%*	*7,357*	*38.8%*	*48*	*76.7%*	*6*	*(2)*
30.00 to <100.00	*121*	*12*	*104.1%*	*128*	*44.7%*	*10,722*	*30.3%*	*76*	*59.6%*	*18*	*(6)*
100.00 (Default)	432	35	31.7%	419	100.0%	21,698	17.1%	473	113.0%	34	(150)
Subtotal (exposure class)	5,179	1,491	138.8%	6,845	9.7%	1,070,980	35.8%	2,892	42.2%	122	(207)

Note
a CCF is calculated on a weighted average basis and also reflects where the modelled EAD is higher than the on- and off-balance sheet exposures pre CCF.

The RWA density associated with retail SMEs increased by 2.1% to 44.3% (December 2022:42.2%) primarily due to increase in defaulted exposures.

Analysis of credit risk (continued)

Table 42: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for secured retail - non SME

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2023	£m	£m	%	£m	%		%	£m	%	£m	£m
0.00 to <0.15	22,194	1,530	80.7%	23,596	0.1%	100,436	9.8%	1,569	6.7%	23	(13)
0.00 to <0.10	*15,039*	*1,002*	*80.7%*	*15,957*	*0.1%*	*51,636*	*8.4%*	*483*	*3.0%*	*6*	*(3)*
0.10 to <0.15	*7,155*	*528*	*80.8%*	*7,639*	*0.1%*	*48,800*	*12.8%*	*1,086*	*14.2%*	*17*	*(10)*
0.15 to <0.25	9,528	991	61.9%	10,208	0.2%	64,359	11.6%	888	8.7%	10	(6)
0.25 to <0.50	44,502	2,731	52.4%	46,188	0.4%	278,550	8.9%	3,038	6.6%	20	(7)
0.50 to <0.75	36,956	1,085	63.4%	37,913	0.6%	212,274	11.3%	4,152	11.0%	28	(11)
0.75 to <2.50	34,699	1,244	76.9%	35,933	1.3%	205,071	14.8%	8,369	23.3%	70	(28)
0.75 to <1.75	*29,161*	*1,079*	*75.7%*	*30,200*	*1.1%*	*171,865*	*14.8%*	*6,551*	*21.7%*	*52*	*(20)*
1.75 to <2.5	*5,538*	*165*	*84.9%*	*5,733*	*2.1%*	*33,206*	*14.5%*	*1,818*	*31.7%*	*18*	*(8)*
2.50 to <10.00	7,916	177	84.4%	8,168	4.8%	44,180	14.4%	4,004	49.0%	58	(28)
2.5 to <5	*4,848*	*134*	*87.5%*	*5,027*	*3.5%*	*27,639*	*15.2%*	*2,266*	*45.1%*	*28*	*(13)*
5 to <10	*3,068*	*43*	*74.7%*	*3,141*	*7.0%*	*16,541*	*13.2%*	*1,738*	*55.4%*	*30*	*(15)*
10.00 to <100.00	5,256	191	59.5%	5,424	28.9%	30,891	10.2%	3,066	56.5%	156	(50)
10 to <20	*2,622*	*86*	*62.3%*	*2,697*	*13.3%*	*15,018*	*10.4%*	*1,548*	*57.4%*	*39*	*(16)*
20 to <30	*916*	*34*	*74.0%*	*951*	*24.3%*	*5,960*	*11.2%*	*665*	*69.9%*	*27*	*(10)*
30.00 to <100.00	*1,718*	*71*	*49.1%*	*1,776*	*55.2%*	*9,913*	*9.3%*	*853*	*48.0%*	*90*	*(24)*
100.00 (Default)	1,772	2	—	1,778	100.0%	15,802	17.5%	1,135	63.8%	421	(393)
Subtotal (exposure class)	**162,823**	**7,951**	**65.2%**	**169,208**	**2.7%**	**951,563**	**11.3%**	**26,221**	**15.5%**	**786**	**(536)**

Analysis of credit risk (continued)

Table 42: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for secured retail - non SME - continued

PD range As at 31 December 2022	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	22,446	2,349	78.0%	24,352	0.1%	104,175	11.9%	1,349	5.5%	17	(9)
0.00 to <0.10	*15,207*	*1,702*	*78.0%*	*16,576*	*0.1%*	*53,656*	*10.2%*	*451*	*2.7%*	*4*	*(2)*
0.10 to <0.15	*7,239*	*647*	*78.1%*	*7,776*	*0.1%*	*50,519*	*15.4%*	*898*	*11.5%*	*13*	*(7)*
0.15 to <0.25	10,484	1,398	64.1%	11,410	0.2%	75,016	13.0%	887	7.8%	9	(4)
0.25 to <0.50	36,589	2,979	58.9%	38,470	0.4%	224,411	10.2%	2,753	7.2%	18	(5)
0.50 to <0.75	41,379	1,868	59.6%	42,668	0.6%	254,145	10.5%	4,337	10.2%	30	(3)
0.75 to <2.50	38,582	2,564	78.1%	40,755	1.3%	235,232	15.1%	9,667	23.7%	86	(23)
0.75 to <1.75	*32,634*	*2,317*	*78.0%*	*34,576*	*1.1%*	*197,695*	*14.8%*	*7,495*	*21.7%*	*64*	*(17)*
1.75 to <2.5	*5,948*	*247*	*79.3%*	*6,179*	*2.0%*	*37,537*	*16.6%*	*2,172*	*35.2%*	*22*	*(6)*
2.50 to <10.00	8,990	386	80.7%	9,352	4.5%	52,284	15.3%	4,501	48.1%	63	(16)
2.5 to <5	*6,467*	*301*	*81.7%*	*6,749*	*3.4%*	*37,468*	*16.5%*	*3,178*	*47.1%*	*39*	*(10)*
5 to <10	*2,523*	*85*	*77.2%*	*2,603*	*7.3%*	*14,816*	*12.2%*	*1,323*	*50.8%*	*24*	*(6)*
10.00 to <100.00	4,897	145	76.8%	5,040	29.0%	29,696	9.2%	2,546	50.5%	131	(31)
10 to <20	*2,558*	*76*	*68.1%*	*2,622*	*14.7%*	*14,456*	*9.3%*	*1,341*	*51.2%*	*37*	*(10)*
20 to <30	*758*	*33*	*76.6%*	*788*	*25.1%*	*5,130*	*9.7%*	*469*	*59.5%*	*20*	*(2)*
30.00 to <100.00	*1,581*	*36*	*95.2%*	*1,630*	*53.9%*	*10,110*	*8.8%*	*736*	*45.2%*	*74*	*(19)*
100.00 (Default)	1,592	3	—	1,597	100.0%	15,701	18.0%	1,629	102.0%	368	(369)
Subtotal (exposure class)	164,959	11,692	68.6%	173,644	2.6%	990,660	12.1%	27,669	15.9%	722	(460)

The RWA density associated with secured retail non SMEs remained broadly stable at 15.5% (December 2022:15.9%) as a reduction driven by capital LGD model update for the mortgage portfolio and reduction in exposures, was partially offset by changes in risk parameters, IRB repair PMA and HPI refresh within Barclays UK.

Analysis of credit risk (continued)

Table 43: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for revolving retail

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF[a]	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2023	£m	£m	%	£m	%		%	£m	%	£m	£m
0.00 to <0.15	1,190	16,767	64.2%	11,959	0.1%	13,829,098	74.7%	572	4.8%	9	(7)
0.00 to <0.10	*756*	*12,504*	*71.7%*	*9,723*	*0.0%*	*12,112,500*	*73.9%*	*405*	*4.2%*	*6*	*(5)*
0.10 to <0.15	*434*	*4,263*	*42.3%*	*2,236*	*0.1%*	*1,716,598*	*77.9%*	*167*	*7.4%*	*3*	*(2)*
0.15 to <0.25	850	5,611	36.2%	2,883	0.2%	1,584,075	78.6%	326	11.3%	6	(5)
0.25 to <0.50	1,632	6,701	36.7%	4,092	0.4%	1,739,887	79.6%	818	20.0%	16	(16)
0.50 to <0.75	963	3,007	35.8%	2,039	0.6%	792,642	80.6%	533	26.2%	12	(13)
0.75 to <2.50	3,662	6,228	37.1%	5,970	1.4%	1,926,087	82.3%	3,272	54.8%	87	(119)
0.75 to <1.75	*2,714*	*5,061*	*36.1%*	*4,539*	*1.1%*	*1,488,446*	*82.0%*	*2,241*	*49.4%*	*56*	*(70)*
1.75 to <2.5	*948*	*1,167*	*41.4%*	*1,431*	*2.1%*	*437,641*	*83.2%*	*1,031*	*72.1%*	*31*	*(49)*
2.50 to <10.00	2,854	2,042	70.1%	4,285	4.6%	1,209,646	83.8%	5,309	123.9%	204	(303)
2.5 to <5	*1,775*	*1,678*	*65.1%*	*2,868*	*3.5%*	*814,430*	*83.4%*	*2,820*	*98.3%*	*97*	*(149)*
5 to <10	*1,079*	*364*	*93.0%*	*1,417*	*6.8%*	*395,216*	*84.5%*	*2,489*	*175.6%*	*107*	*(154)*
10.00 to <100.00	598	96	176.8%	769	23.1%	269,209	84.5%	1,925	250.5%	181	(230)
10 to <20	*375*	*67*	*174.6%*	*493*	*13.4%*	*166,711*	*84.6%*	*1,092*	*221.5%*	*64*	*(105)*
20 to <30	*90*	*14*	*188.0%*	*116*	*24.0%*	*43,336*	*84.4%*	*301*	*260.2%*	*24*	*(33)*
30.00 to <100.00	*133*	*15*	*176.3%*	*160*	*52.2%*	*59,162*	*84.4%*	*532*	*333.2%*	*93*	*(92)*
100.00 (Default)	336	190	—	336	100.0%	177,992	68.0%	1,320	392.9%	224	(228)
Subtotal (exposure class)	**12,085**	**40,642**	**49.8%**	**32,333**	**2.6%**	**21,528,636**	**78.8%**	**14,075**	**43.5%**	**739**	**(921)**

Analysis of credit risk (continued)

Table 43: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for revolving retail - continued

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF[a]	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2022	£m	£m	%	£m	%		%	£m	%	£m	£m
0.00 to <0.15	1,140	19,771	56.4%	12,292	0.1%	13,074,096	74.8%	580	4.7%	11	(10)
0.00 to <0.10	*713*	*14,542*	*61.5%*	*9,657*	*0.1%*	*10,946,980*	*74.0%*	*390*	*4.0%*	*8*	*(7)*
0.10 to <0.15	*427*	*5,229*	*42.2%*	*2,635*	*0.1%*	*2,127,116*	*77.7%*	*190*	*7.2%*	*3*	*(3)*
0.15 to <0.25	805	6,373	41.0%	3,419	0.2%	2,476,903	78.1%	382	11.2%	8	(7)
0.25 to <0.50	1,550	6,902	38.3%	4,191	0.4%	1,983,973	79.4%	815	19.5%	22	(31)
0.50 to <0.75	945	3,032	35.8%	2,030	0.6%	857,175	80.0%	524	25.8%	14	(23)
0.75 to <2.50	3,492	5,775	38.9%	5,735	1.4%	1,989,700	81.9%	3,148	54.9%	109	(177)
0.75 to <1.75	*2,601*	*4,699*	*37.9%*	*4,381*	*1.1%*	*1,498,047*	*81.6%*	*2,178*	*49.7%*	*75*	*(117)*
1.75 to <2.5	*891*	*1,076*	*43.1%*	*1,354*	*2.1%*	*491,653*	*82.7%*	*970*	*71.6%*	*34*	*(60)*
2.50 to <10.00	2,655	1,858	70.0%	3,956	4.6%	1,250,898	83.6%	4,776	120.7%	205	(318)
2.5 to <5	*1,644*	*1,531*	*64.0%*	*2,624*	*3.4%*	*856,932*	*83.2%*	*2,608*	*99.3%*	*101*	*(158)*
5 to <10	*1,011*	*327*	*98.1%*	*1,332*	*6.9%*	*393,966*	*84.3%*	*2,168*	*162.9%*	*104*	*(160)*
10.00 to <100.00	607	97	176.9%	780	23.2%	286,676	84.2%	1,937	248.6%	204	(240)
10 to <20	*381*	*66*	*177.3%*	*499*	*13.4%*	*175,264*	*84.3%*	*1,090*	*218.6%*	*69*	*(115)*
20 to <30	*93*	*14*	*188.0%*	*120*	*24.0%*	*47,911*	*84.2%*	*310*	*259.1%*	*27*	*(38)*
30.00 to <100.00	*133*	*17*	*165.8%*	*161*	*52.9%*	*63,501*	*84.2%*	*537*	*333.7%*	*108*	*(87)*
100.00 (Default)	338	199	—	338	100.0%	259,281	74.4%	1,381	409.1%	225	(239)
Subtotal (exposure class)	11,532	44,007	48.2%	32,741	2.5%	22,178,702	78.6%	13,543	41.4%	798	(1,045)

Note
a CCF is calculated on a weighted average basis and also reflects where the modelled EAD is higher than the on- and off-balance sheet exposures pre CCF.

The RWA density associated with revolving retail increased by 2.1% to 43.5% (December 2022:41.4%) primarily due to a reduction in balances within lower PD bands and changes in the risk parameters.

Analysis of credit risk (continued)

Table 44: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for other retail - non SME

PD range As at 31 December 2023	On-balance sheet exposures £m	Off-balance-sheet exposures pre-CCF £m	Exposure weighted average CCF %	Exposure post CCF and post CRM £m	Exposure weighted average PD %	Number of obligors	Exposure weighted average LGD %	Risk weighted exposure amount after supporting factors £m	Density of risk weighted exposure amount %	Expected loss amount £m	Value adjustments and provisions £m
0.00 to <0.15	186	1	2.4%	186	0.1%	42,038	73.5%	41	22.3%	0	0
0.00 to <0.10	*67*	*1*	*2.4%*	*67*	*0.1%*	*21,684*	*72.0%*	*11*	*16.4%*	*0*	*0*
0.10 to <0.15	*119*	*—*	*—*	*119*	*0.1%*	*20,354*	*74.3%*	*30*	*25.6%*	*0*	*0*
0.15 to <0.25	273	0	2.0%	273	0.2%	43,294	74.5%	97	35.6%	0	0
0.25 to <0.50	554	—	—	554	0.4%	74,530	75.3%	301	54.2%	2	(1)
0.50 to <0.75	395	0	23.5%	395	0.6%	49,124	75.8%	342	86.6%	2	(2)
0.75 to <2.50	1,134	—	—	1,134	1.4%	131,873	76.5%	1,147	101.1%	13	(13)
0.75 to <1.75	*860*	*—*	*—*	*860*	*1.2%*	*100,655*	*76.4%*	*820*	*95.3%*	*8*	*(8)*
1.75 to <2.5	*274*	*—*	*—*	*274*	*2.1%*	*31,218*	*76.9%*	*327*	*119.2%*	*5*	*(5)*
2.50 to <10.00	732	—	—	732	4.7%	83,639	77.4%	977	133.4%	28	(27)
2.5 to <5	*487*	*—*	*—*	*487*	*3.5%*	*55,293*	*77.2%*	*633*	*129.9%*	*14*	*(14)*
5 to <10	*245*	*—*	*—*	*245*	*7.0%*	*28,346*	*77.7%*	*344*	*140.4%*	*14*	*(13)*
10.00 to <100.00	297	—	—	297	27.2%	37,118	77.7%	536	180.6%	67	(45)
10 to <20	*177*	*—*	*—*	*177*	*13.6%*	*21,631*	*77.9%*	*331*	*186.6%*	*23*	*(18)*
20 to <30	*46*	*—*	*—*	*46*	*24.2%*	*5,633*	*77.9%*	*90*	*197.0%*	*9*	*(6)*
30.00 to <100.00	*74*	*—*	*—*	*74*	*61.9%*	*9,854*	*77.2%*	*115*	*155.8%*	*35*	*(21)*
100.00 (Default)	60	—	—	60	100.0%	21,270	76.6%	62	102.2%	35	(35)
Subtotal (exposure class)	3,631	1	2.5%	3,631	5.4%	482,886	76.2%	3,503	96.4%	147	(123)

Analysis of credit risk (continued)

Table 44: CR6 – IRB approach – Credit risk exposures by exposure class and PD range for other retail - non SME - continued

PD range	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
As at 31 December 2022	£m	£m	%	£m	%		%	£m	%	£m	£m
0.00 to <0.15	336	1	2.3%	336	0.1%	65,087	73.6%	71	21.3%	0	0
0.00 to <0.10	*160*	*1*	*2.3%*	*160*	*0.1%*	*37,667*	*72.9%*	*26*	*16.4%*	*0*	*0*
0.10 to <0.15	*176*	—	—	*176*	*0.1%*	*27,420*	*74.3%*	*45*	*25.8%*	*0*	*0*
0.15 to <0.25	311	—	—	311	0.2%	50,615	74.2%	115	36.9%	0	0
0.25 to <0.50	649	—	—	649	0.4%	85,062	75.2%	352	54.3%	2	(2)
0.50 to <0.75	434	—	—	434	0.6%	53,592	75.7%	387	89.1%	2	(3)
0.75 to <2.50	1,195	—	—	1,195	1.4%	138,075	76.4%	1,215	101.7%	14	(15)
0.75 to <1.75	*909*	—	—	*909*	*1.2%*	*105,602*	*76.3%*	*869*	*95.7%*	*9*	*(9)*
1.75 to <2.5	*286*	—	—	*286*	*2.1%*	*32,473*	*76.8%*	*346*	*120.8%*	*5*	*(6)*
2.50 to <10.00	736	—	—	736	4.6%	84,674	77.3%	994	135.1%	28	(30)
2.5 to <5	*496*	—	—	*496*	*3.5%*	*56,548*	*77.2%*	*653*	*131.7%*	*14*	*(16)*
5 to <10	*240*	—	—	*240*	*7.0%*	*28,126*	*77.6%*	*341*	*142.1%*	*14*	*(14)*
10.00 to <100.00	291	—	—	291	27.9%	37,314	77.8%	529	181.9%	67	(51)
10 to <20	*172*	—	—	*172*	*13.5%*	*21,197*	*77.9%*	*327*	*190.1%*	*22*	*(27)*
20 to <30	*43*	—	—	*43*	*24.2%*	*5,624*	*77.9%*	*84*	*197.1%*	*8*	*(5)*
30.00 to <100.00	*76*	—	—	*76*	*62.6%*	*10,493*	*77.5%*	*118*	*154.9%*	*37*	*(19)*
100.00 (Default)	59	—	—	59	100.0%	21,691	76.8%	45	75.0%	23	(23)
Subtotal (exposure class)	4,011	1	2.5%	4,011	4.9%	536,110	76.0%	3,708	92.5%	136	(124)

The RWA density associated with other retail-non SME increased by 3.9% to 96.4% (December 2022:92.5%) primarily due to a reduction in balances within lower PD bands.

Analysis of credit risk (continued)

Table 45: CR10 – Specialised lending and equity exposures under the simple risk weighted approach[a]

Slotting, also known as specialised lending, is an approach that is applied to financing of individual projects where the repayment is highly dependent on the performance of the underlying pool or collateral. It uses a standard set of rules for the calculation of RWAs, based upon an assessment of factors such as the financial strength of the counterparty. The requirements for the application of the Slotting approach are detailed in CRR article 153.

Specialised lending : Income-producing real estate and high volatility commercial real estate (Slotting approach)							
Regulatory categories	Remaining maturity	On-balance sheet exposure	Off-balance sheet exposure	Risk weight	Exposure value	Risk weighted exposure amount	Expected loss amount
As at 31 December 2023		£m	£m		£m	£m	£m
Category 1	Less than 2.5 years	**1,646**	**694**	**50%**	**2,031**	**937**	**—**
	Equal to or more than 2.5 years	**1,043**	**258**	**70%**	**1,265**	**827**	**5**
Category 2	Less than 2.5 years	**1,080**	**164**	**70%**	**1,174**	**778**	**5**
	Equal to or more than 2.5 years	**782**	**84**	**90%**	**867**	**718**	**7**
Category 3	Less than 2.5 years	**434**	**150**	**115%**	**511**	**576**	**15**
	Equal to or more than 2.5 years	**338**	**—**	**115%**	**338**	**377**	**9**
Category 4	Less than 2.5 years	**20**	**—**	**250%**	**20**	**49**	**2**
	Equal to or more than 2.5 years	**50**	**—**	**250%**	**50**	**121**	**4**
Category 5	Less than 2.5 years	**137**	**1**	**—**	**138**	**—**	**69**
	Equal to or more than 2.5 years	**36**	**2**	**—**	**37**	**—**	**19**
Total	Less than 2.5 years	**3,317**	**1,009**	**—**	**3,874**	**2,340**	**91**
	Equal to or more than 2.5 years	**2,249**	**344**	**—**	**2,557**	**2,043**	**44**
As at 31 December 2022							
Category 1	Less than 2.5 years	1,504	531	50%	1,715	735	—
	Equal to or more than 2.5 years	1,221	299	70%	1,423	882	6
Category 2	Less than 2.5 years	1,540	112	70%	1,585	1,048	6
	Equal to or more than 2.5 years	1,277	40	90%	1,303	1,105	10
Category 3	Less than 2.5 years	504	373	115%	654	725	18
	Equal to or more than 2.5 years	309	106	115%	357	404	10
Category 4	Less than 2.5 years	47	—	250%	47	115	4
	Equal to or more than 2.5 years	10	—	250%	10	21	1
Category 5	Less than 2.5 years	79	5	—	79	—	40
	Equal to or more than 2.5 years	41	2	—	42	—	21
Total	Less than 2.5 years	3,674	1,021	—	4,080	2,623	68
	Equal to or more than 2.5 years	2,858	447	—	3,135	2,412	48

Notes
a The table includes specialised lending CCR exposures.

Analysis of credit risk (continued)

Table 46: CR1 - Performing and non-performing exposures and related provisions[a]

This table provides an overview of the credit quality of on- and off-balance sheet non-performing exposures and related impairments, provisions and valuation adjustments by portfolio and exposure class.

		Gross carrying amount/nominal						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collateral and financial guarantees received	
		Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures
			Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3		Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3			
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
005	**Cash balances at central banks and other demand deposits**	223,949	223,949	—	—	—	—	—	—	—	—	—	—	—	—	—
010	**Loans and advances**	640,659	404,960	39,773	7,455	40	7,367	(3,241)	(947)	(2,294)	(2,638)	(2)	(2,636)	(22)	427,575	3,965
020	*Central banks*	*23,251*	*17,889*	—	—	—	—	—	—	—	—	—	—	—	*5,362*	—
030	*General governments*	*6,204*	*5,057*	*57*	*1*	—	*1*	*(15)*	*(4)*	*(11)*	—	—	—	—	*4,642*	—
040	*Credit institutions*	*49,476*	*22,946*	*2*	*41*	—	*41*	*(1)*	*(1)*	—	*(36)*	—	*(36)*	—	*26,731*	—
050	*Other financial corporations*	*264,445*	*107,524*	*1,622*	*148*	—	*148*	*(55)*	*(43)*	*(12)*	*(36)*	—	*(36)*	*(6)*	*176,494*	*55*
060	*Non-financial corporations*	*77,861*	*59,756*	*11,663*	*2,535*	—	*2,535*	*(644)*	*(251)*	*(393)*	*(551)*	—	*(551)*	*(16)*	*40,760*	*1,673*
070	*Of which SMEs*	*14,698*	*10,458*	*4,240*	*1,346*	—	*1,346*	*(258)*	*(118)*	*(140)*	*(273)*	—	*(273)*	—	*10,994*	*492*
080	*Households*	*219,422*	*191,788*	*26,429*	*4,730*	*40*	*4,642*	*(2,526)*	*(648)*	*(1,878)*	*(2,015)*	*(2)*	*(2,013)*	—	*173,586*	*2,237*
090	**Debt securities**	130,551	123,264	4,513	—	—	—	(35)	(17)	(18)	—	—	—	—	1,346	—
100	*Central banks*	*1,762*	*1,762*	—	—	—	—	—	—	—	—	—	—	—	—	—
110	*General governments*	*89,702*	*86,441*	*2,727*	—	—	—	*(16)*	*(7)*	*(9)*	—	—	—	—	*24*	—
120	*Credit institutions*	*13,088*	*12,252*	*836*	—	—	—	*(2)*	*(1)*	*(1)*	—	—	—	—	*354*	—
130	*Other financial corporations*	*19,188*	*17,465*	*950*	—	—	—	*(12)*	*(4)*	*(8)*	—	—	—	—	*678*	—
140	*Non-financial corporations*	*6,811*	*5,344*	—	—	—	—	*(5)*	*(5)*	—	—	—	—	—	*290*	—
150	**Off-balance-sheet exposures**	425,184	400,969	24,215	1,037	—	1,037	(460)	(173)	(287)	(44)	—	(44)		35,637	69
160	*Central banks*	*665*	*665*	—	—	—	—	—	—	—	—	—	—		—	—
170	*General governments*	*1,798*	*1,771*	*27*	*15*	—	*15*	—	—	—	—	—	—		—	—
180	*Credit institutions*	*3,207*	*2,976*	*231*	—	—	—	*(2)*	*(1)*	*(1)*	—	—	—		*10*	—
190	*Other financial corporations*	*80,290*	*77,773*	*2,517*	*543*	—	*543*	*(33)*	*(20)*	*(13)*	*(19)*	—	*(19)*		*18,476*	*9*
200	*Non-financial corporations*	*174,273*	*156,628*	*17,645*	*287*	—	*287*	*(303)*	*(93)*	*(210)*	*(25)*	—	*(25)*		*12,716*	*41*
210	*Households*	*164,951*	*161,156*	*3,795*	*192*	—	*192*	*(122)*	*(59)*	*(63)*	—	—	—		*4,435*	*19*
220	**Total**	1,420,343	1,153,142	68,501	8,492	40	8,404	(3,736)	(1,137)	(2,599)	(2,682)	(2)	(2,680)	(22)	464,558	4,034

Analysis of credit risk (continued)

Table 46: CR1 - Performing and non-performing exposures and related provisions - continued

This table provides an overview of the credit quality of on- and off-balance sheet non-performing exposures and related impairments, provisions and valuation adjustments by portfolio and exposure class.

		Gross carrying amount/nominal						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions							Collateral and financial guarantees received	
		Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions			Accumulated partial write-off	On performing exposures	On non-performing exposures
			Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3[c]		Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3			
As at 31 December 2022		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
005	**Cash balances at central banks and other demand deposits**	255,548	255,548	—	—	—	—	—	—	—	—	—	—	—	—	—
010	**Loans and advances**	658,167	413,461	42,782	7,326	40	7,263	(3,362)	(1,071)	(2,291)	(2,337)	(12)	(2,325)	(82)	434,549	3,852
020	*Central banks*	*31,806*	*18,050*	—	—	—	—	—	—	—	—	—	—	—	*13,725*	—
030	*General governments*	*7,987*	*6,011*	*15*	—	—	—	*(4)*	*(2)*	*(2)*	—	—	—	—	*5,977*	—
040	*Credit institutions*	*54,627*	*23,758*	*37*	*40*	—	*40*	*(3)*	*(3)*	—	*(33)*	—	*(33)*	—	*28,793*	—
050	*Other financial corporations*	*252,407*	*104,253*	*1,853*	*131*	—	*131*	*(59)*	*(34)*	*(25)*	*(28)*	—	*(28)*	—	*163,466*	*55*
060	*Non-financial corporations*	*84,501*	*62,016*	*14,645*	*2,475*	—	*2,475*	*(824)*	*(422)*	*(402)*	*(519)*	—	*(519)*	*(82)*	*44,443*	*1,421*
070	*Of which SMEs*	*17,327*	*11,182*	*6,145*	*1,655*	—	*1,655*	*(336)*	*(165)*	*(171)*	*(268)*	—	*(268)*	—	*13,557*	*553*
080	*Households*	*226,839*	*199,373*	*26,232*	*4,680*	*40*	*4,617*	*(2,472)*	*(610)*	*(1,862)*	*(1,757)*	*(12)*	*(1,745)*	—	*178,145*	*2,376*
090	**Debt securities**	113,767	104,955	5,352	—	—	—	(54)	(12)	(42)	—	—	—	—	2,058	—
100	*Central banks*	*1,293*	*1,293*	—	—	—	—	—	—	—	—	—	—	—	—	—
110	*General governments*	*72,622*	*68,180*	*3,550*	—	—	—	*(22)*	*(3)*	*(19)*	—	—	—	—	—	—
120	*Credit institutions*	*16,024*	*14,847*	*1,177*	—	—	—	*(3)*	*(1)*	*(2)*	—	—	—	—	*907*	—
130	*Other financial corporations*	*15,971*	*14,762*	*465*	—	—	—	*(11)*	*(3)*	*(8)*	—	—	—	—	*750*	—
140	*Non-financial corporations*	*7,857*	*5,873*	*160*	—	—	—	*(18)*	*(5)*	*(13)*	—	—	—	—	*401*	—
150	**Off-balance-sheet exposures**	429,653	399,194	30,459	1,180	—	1,180	(560)	(245)	(315)	(23)	—	(23)		35,045	70
160	*Central banks*	*815*	*815*	—	—	—	—	—	—	—	—	—	—		*150*	—
170	*General governments*	*2,504*	*2,431*	*73*	—	—	—	*(1)*	—	*(1)*	—	—	—		—	—
180	*Credit institutions*	*2,948*	*2,847*	*101*	—	—	—	*(4)*	*(2)*	*(2)*	—	—	—		*14*	—
190	*Other financial corporations*	*81,030*	*76,396*	*4,634*	*383*	—	*383*	*(33)*	*(14)*	*(19)*	—	—	—		*19,454*	—
200	*Non-financial corporations*	*169,910*	*150,591*	*19,319*	*482*	—	*482*	*(389)*	*(180)*	*(209)*	*(23)*	—	*(23)*		*10,752*	*42*
210	*Households*	*172,446*	*166,114*	*6,332*	*315*	—	*315*	*(133)*	*(49)*	*(84)*	—	—	—		*4,675*	*28*
220	**Total**	1,457,135	1,173,158	78,593	8,506	40	8,443	(3,976)	(1,328)	(2,648)	(2,360)	(12)	(2,348)	(82)	471,652	3,922

Notes

a Loans at fair value through profit and loss are included in the total performing and non-performing exposures but no staging analysis is provided as these instruments are not eligible for staging.

Cash balances at central banks and other demand deposits decreased by £31.6bn to £223.9bn (December 2022: £255.5bn) driven by overall decrease in deposits and group liquidity pool.
Performing Loans and advances decreased by £17.5bn to £640.7bn (December 2022: £658.2bn) primarily due to repayments.
Debt securities increased by £16.8bn to £130.6bn (December 2022: £113.8bn) driven by increased investment in debt securities.
Off-Balance sheet exposures decreased by £4.5bn to £425.2bn (December 2022: £429.7bn) primarily due to decrease in commitments.

Analysis of credit risk (continued)

Table 47: CR1-A - Maturity of exposures

This table shows the on- and off-balance sheet net credit risk exposures by residual contractual maturity, split by either loans and advances or debt securities. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Net Exposure Value					
		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
As at 31 December 2023		£m	£m	£m	£m	£m	£m
1	Loans and advances	**482,517**	**283,695**	**93,296**	**208,444**	**—**	**1,067,952**
2	Debt securities	**—**	**23,818**	**59,162**	**47,536**	**—**	**130,516**
3	**Total**	**482,517**	**307,513**	**152,458**	**255,980**	**—**	**1,198,468**
As at 31 December 2022							
1	Loans and advances	477,982	304,489	99,735	207,838	—	1,090,044
2	Debt securities	11	18,007	62,831	32,864	—	113,713
3	**Total**	477,993	322,496	162,566	240,702	—	1,203,757

Loans and advances decreased by £22.0bn to £1,068.0bn (December 2022: £1,090.0bn) driven by net repayments in loans and advances and decreases in off-balance sheet commitments.

Debt securities increased by £16.8bn to £130.5bn (December 2022: £113.7bn) driven by increased investment in debt securities.

Table 48: CR2 - Changes in the stock of non-performing loans and advances

This table shows information on changes in the institutions stock of on balance sheet non-performing loans and advances. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Gross carrying amount
As at 31 December 2023		£m
010	**Initial stock of non-performing loans and advances**	**7,326**
020	Inflows to non-performing portfolios	**5,295**
030	Outflows from non-performing portfolios	**(1,049)**
040	Outflows due to write-offs	**(1,186)**
050	Outflow due to other situations[a]	**(2,931)**
060	**Final stock of non-performing loans and advances**	**7,455**

Note

a Other situations include repayments, disposals and net increase in existing loans and debt securities.

Analysis of credit risk (continued)

Table 49: CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques

This table shows a breakdown of on-balance sheet unsecured and secured credit risk exposures secured by various methods of collateral for both loans and advances and debt securities. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Unsecured carrying amount	Secured carrying amount	Of which secured by collateral	Of which secured by financial guarantees	Of which secured by credit derivatives
As at 31 December 2023		£m	£m	£m	£m	£m
1	Loans and advances	**440,523**	**431,540**	**420,950**	**10,590**	**—**
2	Debt securities	**129,205**	**1,346**	**992**	**354**	
3	**Total**	**569,728**	**432,886**	**421,942**	**10,944**	**—**
4	*Of which non-performing exposures*	***3,490***	***3,965***	***3,391***	***574***	**—**
5	*Of which defaulted*	***3,476***	***3,955***	**—**	**—**	
As at 31 December 2022						
1	Loans and advances	482,640	438,401	425,124	13,277	—
2	Debt securities	111,709	2,058	1,151	907	
3	**Total**	594,349	440,459	426,275	14,184	—
4	*Of which non-performing exposures*	*3,474*	*3,852*	*3,150*	*702*	—
5	*Of which defaulted*	*3,457*	*3,838*			

Unsecured loans and advances decreased by £42.1bn to £440.5bn (December 2022: £482.6bn) due to decrease in cash balances and repayment of loans.

Loans and advances secured by collateral decreased by £4.1bn to £421.0bn (December 2022: £425.1bn) due to repayment of loans.

Loans and advances secured by financial guarantees decreased by £2.7bn to £10.6bn (December 2022: £13.3bn) due to repayments and government claims against guaranteed scheme lending.

Unsecured Debt securities increased by £17.5bn to £129.2bn (December 2022: £111.7bn) driven by increased investment in debt securities.

Analysis of credit risk (continued)

Table 50: CQ1 - Credit quality of forborne exposures

This table provides an overview of the quality of on- and off-balance sheet forborne exposures. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
			Non-performing forborne						Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
		Performing forborne		Of which defaulted	Of which impaired	On performing forborne exposures	On non-performing forborne exposures		
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m
5	**Cash balances at central banks and other demand deposits**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
10	**Loans and Advances[a]**	**2,044**	**1,765**	**1,555**	**1,529**	**(165)**	**(340)**	**1,799**	**993**
20	*Central banks*	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
30	*General governments*	**—**	***1***	***1***	***1***	**—**	**—**	**—**	**—**
40	*Credit institutions*	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
50	*Other financial corporations*	***42***	***69***	***68***	***68***	***(1)***	***(14)***	***4***	***2***
60	*Non-financial corporations*	***1,529***	***981***	***829***	***829***	***(49)***	***(141)***	***1,268***	***648***
70	*Households*	***473***	***714***	***657***	***631***	***(115)***	***(185)***	***527***	***343***
80	**Debt securities**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
90	**Loan commitments given**	**689**	**154**	**150**	**149**	**(7)**	**—**	**67**	**6**
100	**Total**	**2,733**	**1,919**	**1,705**	**1,678**	**(172)**	**(340)**	**1,866**	**999**
As at 31 December 2022									
5	**Cash balances at central banks and other demand deposits**	—	—	—	—	—	—	—	—
10	**Loans and Advances[a]**	1,733	1,832	1,677	1,579	(154)	(346)	1,892	961
20	*Central banks*	—	—	—	—	—	—	—	—
30	*General governments*	—	—	—	—	—	—	—	—
40	*Credit institutions*	—	—	—	—	—	—	—	—
50	*Other financial corporations*	*15*	*51*	*50*	*50*	—	*(9)*	*5*	*3*
60	*Non-financial corporations*	*1,242*	*1,011*	*908*	*845*	*(43)*	*(131)*	*1,307*	*558*
70	*Households*	*476*	*770*	*719*	*684*	*(111)*	*(206)*	*580*	*400*
80	**Debt securities**	—	—	—	—	—	—	—	—
90	**Loan commitments given**	1,015	179	171	169	(5)	—	86	15
100	**Total**	2,748	2,011	1,848	1,748	(159)	(346)	1,978	976

Note

a A review of forbearance programmes across Barclays UK in 2023 resulted in:

- Identification of a segment of written off balances inflating the forbearance stock, UK cards 2022 balances have been updated to reflect a decrease of £74m with a corresponding decrease in ECL of £2m
- 'Breathing Space', a 1–2-month cessation of interest and customer contact to allow businesses to talk to all creditors, now being included within Business Banking for the first time, UK Business Banking 2022 balances have been updated to reflect an increase of £222m with a corresponding increase in ECL of £11m

Forbearance balances decreased by £0.1bn to £4.7bn (December 2022 £4.8bn) primarily in Non-Financial Corporations driven by a reduction in Loans commitments due to closure of single name counterparties in CIB offset by increase in Loans & Advances due to customers moving into forbearance in CIB.

Analysis of credit risk (continued)

Table 51: CQ3 - Credit quality of performing and non-performing exposures by past due days

This table provides an overview of the credit quality of performing and non-performing exposures by past due days. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Gross carrying amount/nominal amount										
		Performing exposures			Non-performing exposures							
			Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 year ≤ 5 years	Past due > 5 year ≤ 7 years	Past due > 7 years	Of which defaulted
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
005	**Cash balances at central banks and other demand deposits**	223,949	223,949	—	—	—	—	—	—	—	—	—	—
010	**Loans and advances**	640,659	639,390	1,269	7,455	2,664	1,129	1,603	708	856	103	392	7,430
020	*Central banks*	*23,251*	*23,251*	—	—	—	—	—	—	—	—	—	—
030	*General governments*	*6,204*	*6,204*	—	*1*	*1*	—	—	—	—	—	—	*1*
040	*Credit institutions*	*49,476*	*49,476*	—	*41*	—	*23*	—	*18*	—	—	—	*41*
050	*Other financial corporations*	*264,445*	*264,434*	*11*	*148*	*119*	*3*	*6*	*5*	*15*	—	—	*148*
060	*Non-financial corporations*	*77,861*	*77,707*	*154*	*2,535*	*1,005*	*327*	*357*	*407*	*359*	*33*	*47*	*2,535*
070	*Of which SMEs*	*14,698*	*14,685*	*13*	*1,346*	*270*	*249*	*273*	*261*	*220*	*33*	*40*	*1,346*
080	*Households*	*219,422*	*218,318*	*1,104*	*4,730*	*1,539*	*776*	*1,240*	*278*	*482*	*70*	*345*	*4,705*
090	**Debt securities**	130,551	130,551	—	—	—	—	—	—	—	—	—	—
100	*Central banks*	*1,762*	*1,762*	—	—	—	—	—	—	—	—	—	—
110	*General governments*	*89,702*	*89,702*	—	—	—	—	—	—	—	—	—	—
120	*Credit institutions*	*13,088*	*13,088*	—	—	—	—	—	—	—	—	—	—
130	*Other financial corporations*	*19,188*	*19,188*	—	—	—	—	—	—	—	—	—	—
140	*Non-financial corporations*	*6,811*	*6,811*	—	—	—	—	—	—	—	—	—	—
150	**Off-balance-sheet exposures**	425,184			1,037								1,037
160	*Central banks*	*665*			—								—
170	*General governments*	*1,798*			*15*								*15*
180	*Credit institutions*	*3,207*			—								—
190	*Other financial corporations*	*80,290*			*543*								*543*
200	*Non-financial corporations*	*174,273*			*287*								*287*
210	*Households*	*164,951*			*192*								*192*
220	**Total**	1,420,344	993,890	1,269	8,492	2,664	1,129	1,603	708	856	103	392	8,467

Analysis of credit risk (continued)

Table 51: CQ3 - Credit quality of performing and non-performing exposures by past due days - continued

	Gross carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 year ≤ 5 years	Past due > 5 year ≤ 7 years	Past due > 7 years	Of which defaulted
As at 31 December 2022	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
005 Cash balances at central banks and other demand deposits	255,548	255,548	—	—	—	—	—	—	—	—	—	—
010 Loans and advances	658,167	656,952	1,215	7,326	2,761	1,025	1,500	1,001	468	161	410	7,295
020 *Central banks*	*31,806*	*31,806*	—	—	—	—	—	—	—	—	—	—
030 *General governments*	*7,987*	*7,987*	—	—	—	—	—	—	—	—	—	—
040 *Credit institutions*	*54,627*	*54,627*	—	*40*	—	—	*40*	—	—	—	—	*40*
050 *Other financial corporations*	*252,407*	*252,406*	*1*	*131*	*100*	*5*	*7*	*7*	*12*	—	—	*131*
060 *Non-financial corporations*	*84,501*	*84,394*	*107*	*2,475*	*1,031*	*330*	*470*	*368*	*181*	*45*	*50*	*2,475*
070 *Of which SMEs*	*17,328*	*17,314*	*14*	*1,655*	*370*	*297*	*446*	*327*	*139*	*35*	*41*	*1,655*
080 *Households*	*226,839*	*225,732*	*1,107*	*4,680*	*1,630*	*690*	*983*	*626*	*275*	*116*	*360*	*4,649*
090 Debt securities	113,767	113,767	—	—	—	—	—	—	—	—	—	—
100 *Central banks*	*1,293*	*1,293*	—	—	—	—	—	—	—	—	—	—
110 *General governments*	*72,622*	*72,622*	—	—	—	—	—	—	—	—	—	—
120 *Credit institutions*	*16,024*	*16,024*	—	—	—	—	—	—	—	—	—	—
130 *Other financial corporations*	*15,971*	*15,971*	—	—	—	—	—	—	—	—	—	—
140 *Non-financial corporations*	*7,857*	*7,857*	—	—	—	—	—	—	—	—	—	—
150 Off-balance-sheet exposures	429,653			1,180								1,180
160 *Central banks*	*815*			—								—
170 *General governments*	*2,504*			—								—
180 *Credit institutions*	*2,948*			—								—
190 *Other financial corporations*	*81,030*			*383*								*383*
200 *Non-financial corporations*	*169,910*			*482*								*482*
210 *Households*	*172,446*			*315*								*315*
220 Total	1,457,135	1,026,267	1,215	8,506	2,761	1,025	1,500	1,001	468	161	410	8,475

Analysis of credit risk (continued)

Table 52: CQ4 - Quality of non-performing exposures by geography

This table shows the credit quality of on-balance sheet and off-balance sheet exposure for loans and advances, debt securities, derivatives and equity instruments by geography. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

	Gross carrying/Nominal amount				Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantee given	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		of which: non-performing		of which: subject to impairment			
			of which: defaulted				
As at 31 December 2023	£m	£m	£m	£m	£m	£m	£m
On-balance sheet exposures	**1,012,349**	**7,455**	**7,431**	**803,867**	**(5,914)**		
UNITED KINGDOM	***463,122***	***3,767***	***3,766***	***424,466***	***(1,979)***		
UNITED STATES	***276,090***	***1,951***	***1,951***	***170,184***	***(3,113)***		
FRANCE	***58,395***	***226***	***226***	***51,418***	***(63)***		
GERMANY	***49,089***	***15***	***15***	***46,373***	***(15)***		
JAPAN	***27,817***	***0***	***0***	***19,345***	***(1)***		
CANADA	***12,622***	***2***	***2***	***7,857***	***(6)***		
ITALY	***11,906***	***619***	***596***	***8,557***	***(369)***		
Other Countries[a]	***113,308***	***875***	***875***	***75,667***	***(368)***		
Off-balance sheet exposures	**426,221**	**1,037**	**1,037**			**(504)**	
UNITED STATES	***248,788***	***118***	***118***			***(296)***	
UNITED KINGDOM	***100,194***	***315***	***315***			***(117)***	
GERMANY	***11,950***	***35***	***35***			***(7)***	
FRANCE	***6,567***	***1***	***1***			***(6)***	
LUXEMBOURG	***6,507***	***3***	***3***			***(7)***	
IRELAND	***6,136***	***2***	***2***			***(4)***	
SWITZERLAND	***4,385***	***3***	***3***			***(2)***	
Other Countries[a]	***41,694***	***560***	***560***			***(65)***	
Total	**1,438,570**	**8,492**	**8,468**	**803,867**	**(5,914)**	**(504)**	
As at 31 December 2022							
On-balance sheet exposures	1,041,968	7,326	7,295	829,404	(5,753)		—
UNITED KINGDOM	*473,531*	*3,913*	*3,913*	*445,504*	*(2,163)*		—
UNITED STATES	*266,504*	*1,199*	*1,199*	*165,869*	*(2,333)*		—
FRANCE	*77,367*	*146*	*146*	*58,397*	*(62)*		—
GERMANY	*58,400*	*251*	*233*	*51,625*	*(304)*		—
JAPAN	*31,610*	*0*	*0*	*22,514*	*(1)*		—
CANADA	*15,209*	*0*	*0*	*8,709*	*(4)*		—
Other Countries[a]	*119,347*	*1,817*	*1,804*	*76,786*	*(886)*		—
Off-balance sheet exposures	430,833	1,180	1,180			(583)	
UNITED STATES	*252,644*	*177*	*177*			*(295)*	
UNITED KINGDOM	*107,322*	*475*	*475*			*(204)*	
GERMANY	*12,089*	*44*	*44*			*(6)*	
FRANCE	*7,700*	*6*	*6*			*(6)*	
LUXEMBOURG	*5,475*	*11*	*11*			*(5)*	
Other Countries[a]	*45,603*	*467*	*467*			*(67)*	
Total	1,472,801	8,506	8,475	829,404	(5,753)	(583)	—

Notes

a Countries that have more than 1% of the total gross exposure are disclosed in the table and countries with <1% gross exposure are aggregated within 'other countries'.

Analysis of credit risk (continued)

Table 53: CQ5 - Credit quality of loans and advances to non-financial corporations by industry

This table shows the credit quality of loans and advances on balance sheet exposure to non-financial corporation by industry types. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Gross carrying amount					
			of which: non-performing				
				of which: defaulted	of which: loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
As at 31 December 2023		£m	£m	£m	£m	£m	£m
010	Agriculture, forestry and fishing	**3,709**	**319**	**319**	**3,707**	**(105)**	**—**
020	Mining and quarrying	**1,992**	**4**	**4**	**1,760**	**(13)**	**—**
030	Manufacturing	**8,272**	**235**	**235**	**7,193**	**(152)**	**—**
040	Electricity, gas, steam and air conditioning	**2,986**	**2**	**2**	**2,971**	**(8)**	**—**
050	Water supply	**946**	**7**	**7**	**946**	**(5)**	**—**
060	Construction	**3,156**	**96**	**96**	**3,121**	**(65)**	**—**
070	Wholesale and retail trade	**6,330**	**172**	**172**	**6,236**	**(125)**	**—**
080	Transport and storage	**1,826**	**58**	**58**	**1,786**	**(49)**	**—**
090	Accommodation and food service activities	**3,738**	**245**	**245**	**3,635**	**(53)**	**—**
100	Information and communication	**5,304**	**114**	**114**	**5,121**	**(121)**	**—**
110	Financial and insurance activities	**580**	**11**	**11**	**578**	**(6)**	**—**
120	Real estate activities	**22,531**	**645**	**645**	**19,290**	**(200)**	**—**
130	Professional, scientific and technical	**2,547**	**76**	**76**	**2,547**	**(44)**	**—**
140	Administrative and support service activities	**4,732**	**89**	**89**	**4,467**	**(69)**	**—**
150	Public administration and defense, compulsory social security	**489**			**439**		**—**
160	Education	**2,783**	**38**	**38**	**1,796**	**(16)**	**—**
170	Human health services and social work	**3,097**	**90**	**90**	**2,992**	**(58)**	**—**
180	Arts, entertainment and recreation	**1,228**	**47**	**47**	**1,228**	**(21)**	**—**
190	Other services	**4,150**	**287**	**287**	**4,141**	**(85)**	**—**
200	Total	**80,396**	**2,535**	**2,535**	**73,954**	**(1,195)**	**—**
As at 31 December 2022							
010	Agriculture, forestry and fishing	3,914	365	365	3,911	(149)	—
020	Mining and quarrying	1,629	34	34	1,609	(12)	—
030	Manufacturing	9,136	159	159	8,469	(196)	—
040	Electricity, gas, steam and air conditioning	3,486	5	5	3,443	(15)	—
050	Water supply	837	17	17	837	(11)	—
060	Construction	3,698	153	153	3,651	(63)	—
070	Wholesale and retail trade	8,511	267	267	8,171	(148)	—
080	Transport and storage	2,869	89	89	2,599	(44)	—
090	Accommodation and food service activities	3,690	174	174	3,551	(62)	—
100	Information and communication	5,557	149	149	5,481	(132)	—
110	Financial and insurance activities	—	—	—	—	—	—
120	Real estate activities	22,813	385	385	19,379	(230)	—
130	Professional, scientific and technical	3,618	106	106	3,604	(57)	—
140	Administrative and support service activities	7,923	217	217	6,589	(70)	—
150	Public administration and defense, compulsory social security	281	—	—	135	(1)	—
160	Education	3,054	32	32	1,912	(21)	—
170	Human health services and social work	3,678	160	160	3,541	(75)	—
180	Arts, entertainment and recreation	1,239	98	98	1,239	(26)	—
190	Other services	1,041	65	65	1,014	(31)	—
200	Total	86,974	2,475	2,475	79,135	(1,343)	—

Total gross carrying amount decreased by £6.6bn to £80.4bn (December 2022: £87.0bn) primarily due to repayments.

Analysis of credit risk (continued)

Table 54: CQ7 - Collateral obtained by taking possession and execution processes

This table provides an overview of foreclosed assets obtained from non-performing exposures. The amounts shown are based on IFRS accounting values according to the regulatory scope of consolidation.

		Collateral obtained by taking possession	
		Value at initial recognition	Accumulated negative changes
As at 31 December 2023		£m	£m
010	Property, plant and equipment (PP&E)	**—**	**—**
020	Other than PP&E	**8**	**(2)**
030	Residential immovable property	**3**	**—**
040	Commercial Immovable property	**—**	**—**
050	Movable property (auto, shipping, etc.)	**—**	**—**
060	Equity and debt instruments	**—**	**—**
070	Other collateral	**5**	**(2)**
080	**Total**	**8**	**(2)**
As at 31 December 2022			
010	Property, plant and equipment (PP&E)	—	—
020	Other than PP&E	48	17
030	Residential immovable property	30	15
040	Commercial Immovable property	—	—
050	Movable property (auto, shipping, etc.)	—	—
060	Equity and debt instruments	—	—
070	Other collateral	18	2
080	**Total**	48	17

Analysis of counterparty credit risk

This section details Barclays' counterparty credit risk profile, focusing on regulatory measures such as exposure at default and risk weighted assets. The risk profile is analysed by financial contract type, approach and notional value.

CCR RWAs are primarily generated by the following IFRS account classifications: financial assets designated at fair value; derivative financial instruments; reverse repurchase agreements and other similar secured lending.

CVA has been included as part of the CCR RWAs disclosures.

Key Metrics

Total RWAs

£44.7bn

(2022: £42.0bn)

Analysis of counterparty credit risk

Table 55: CCR1 – Analysis of CCR exposure by approach

This table provides a comprehensive view of the methods used to calculate Counterparty Credit Risk (CCR) regulatory requirements (excluding central clearing counterparties) and the main parameters used within each method.

		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	RWEA
As at 31 December 2023		£m	£m	£m		£m	£m	£m	£m
1	SA-CCR (for derivatives)	**1,810**	**3,493**		**1.4**	**14,722**	**7,421**	**7,421**	**3,753**
2	IMM (for derivatives and SFTs)			**67,251**	**1.4**	**122,913**	**94,384**	**94,152**	**26,673**
2a	*Of which securities financing transactions netting sets*			***34,270***			***47,979***	***47,979***	***6,271***
2b	*Of which derivatives and long settlement transactions netting*			***32,981***		***122,913***	***46,405***	***46,173***	***20,402***
4	Financial collateral comprehensive method (for SFTs)					**71,265**	**18,624**	**18,624**	**9,030**
6	**Total**					**208,900**	**120,429**	**120,197**	**39,456**
As at 31 December 2022									
1	SA-CCR (for derivatives)	2,278	3,176		1.4	12,368	7,634	7,634	4,081
2	IMM (for derivatives and SFTs)			62,083	1.4	131,803	87,237	86,916	25,741
2a	*Of which securities financing transactions netting sets*			*28,242*			*39,539*	*39,539*	*6,170*
2b	*Of which derivatives and long settlement transactions netting*			*33,841*		*131,803*	*47,698*	*47,377*	*19,571*
4	Financial collateral comprehensive method (for SFTs)					69,839	17,986	17,986	7,424
6	**Total**					214,010	112,857	112,536	37,246

CCR RWAs increased by £2.3bn to £39.5bn (December 2022: £37.2bn) primarily due to increased trading activity within CIB and a change in treatment of certain SFT collateral, partially offset by the strengthening of GBP against USD.

Analysis of counterparty credit risk (continued)

Table 56: CCR3 – Standardised approach – CCR exposures by regulatory exposure class and risk weights

This table shows exposure at default, broken down by exposure class and risk weight. This table includes exposures subject to the standardised approach only.

	Exposure classes	Risk weight											
		0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	others	Total exposure value
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	**2,938**	**—**	**—**	**—**	**—**	**2**	**—**	**—**	**65**	**—**	**—**	**3,005**
2	Regional government or local authorities	**375**	**—**	**—**	**—**	**2**	**—**	**—**	**—**	**1**	**—**	**—**	**378**
3	Public sector entities	**—**	**—**	**—**	**—**	**201**	**1**	**—**	**—**	**—**	**—**	**—**	**202**
4	Multilateral development banks	**436**	**—**	**—**	**—**	**13**	**—**	**—**	**—**	**—**	**—**	**—**	**449**
5	International organisations	**831**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**831**
6	Institutions	**—**	**24,764**	**—**	**—**	**844**	**548**	**—**	**—**	**12**	**—**	**—**	**26,168**
7	Corporates	**—**	**—**	**—**	**—**	**60**	**282**	**—**	**—**	**16,653**	**7**	**—**	**17,002**
8	Retail	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
9	Institutions and corporates with a short-term credit assessment	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
10	Other items	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**7**	**—**	**7**
11	**Total exposure value**	**4,580**	**24,764**	**—**	**—**	**1,120**	**833**	**—**	**—**	**16,731**	**14**	**—**	**48,042**
As at 31 December 2022													
1	Central governments or central banks	2,100	—	—	—	55	5	—	—	16	—	—	2,176
2	Regional government or local authorities	388	—	—	—	3	—	—	—	—	—	—	391
3	Public sector entities	—	—	—	—	64	—	—	—	175	—	—	239
4	Multilateral development banks	851	—	—	—	8	—	—	—	—	—	—	859
5	International organisations	234	—	—	—	—	—	—	—	—	—	—	234
6	Institutions	—	33,324	—	—	732	1,074	—	—	45	—	—	35,175
7	Corporates	—	—	—	—	95	227	—	—	14,657	4	—	14,983
8	Retail	—	—	—	—	—	—	—	—	—	—	—	—
9	Institutions and corporates with a short-term	—	—	—	—	—	—	—	—	—	—	—	—
10	Other items	—	—	—	—	—	—	—	—	—	13	—	13
11	**Total exposure value**	3,573	33,324	—	—	957	1,306	—	—	14,893	17	—	54,070

CCR EAD decreased by £6.1bn to £48.0bn (December 2022: £54.1bn) primarily driven by decrease in trading activities with central clearing counterparties.

Analysis of counterparty credit risk (continued)

IRB obligor grade disclosure

The following tables show counterparty credit risk exposure at default post-CRM for the IRB approach for portfolios within both the trading and banking books. Separate tables are provided for the following exposure classes: central governments and central banks (table 57), institutions (table 58), corporates (table 59).

Table 57: CCR4 – IRB approach – CCR exposures by portfolio and PD range for central governments and central banks

	PD scale	Exposure value	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	RWEA	Density of risk weighted exposure amount
	As at 31 December 2023	£m	%		%		£m	%
1	0.00 to <0.15	**13,166**	**0.0%**	**48**	**49.7%**	**1**	**862**	**6.5%**
2	0.15 to <0.25	**312**	**0.2%**	**3**	**45.1%**	**1**	**111**	**35.7%**
3	0.25 to <0.50	**251**	**0.3%**	**6**	**51.3%**	**1**	**99**	**39.4%**
4	0.50 to <0.75	**—**	**—**	**—**	**—**	**—**	**—**	**—**
5	0.75 to <2.50	**72**	**1.5%**	**4**	**45.1%**	**1**	**64**	**88.3%**
6	2.50 to <10.00	**1**	**5.4%**	**2**	**45.1%**	**1**	**2**	**159.9%**
7	10.00 to <100.00	**0**	**19.8%**	**2**	**61.6%**	**1**	**1**	**361.5%**
8	100.00 (Default)	**—**	**—**	**—**	**—**	**—**	**—**	**—**
	Total	**13,802**	**0.0%**	**65**	**49.6%**	**1**	**1,139**	**8.3%**
	As at 31 December 2022							
1	0.00 to <0.15	5,286	0.0%	46	58.2%	1	616	11.7%
2	0.15 to <0.25	152	0.2%	6	52.5%	1	46	30.3%
3	0.25 to <0.50	164	0.3%	3	45.0%	1	53	32.4%
4	0.50 to <0.75	1	0.5%	2	45.0%	1	1	58.2%
5	0.75 to <2.50	277	2.3%	4	46.4%	1	291	105.1%
6	2.50 to <10.00	2	3.7%	3	47.9%	1	3	144.8%
7	10.00 to <100.00	4	11.0%	2	58.0%	1	10	270.8%
8	100.00 (Default)	—	—	—	—	—	—	—
	Total	5,886	0.2%	66	57.2%	1	1,020	17.3%

The RWA density associated with central government and central banks decreased by 9% to 8.3% (December 2022: 17.3%) primarily driven by increase in trading activities within lower PD bands.

Table 58: CCR4 – IRB approach – CCR exposures by portfolio and PD range for institutions

	PD scale	Exposure value	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	RWEA	Density of risk weighted exposure amount
	As at 31 December 2023	£m	%		%		£m	%
1	0.00 to <0.15	**23,572**	**0.1%**	**575**	**46.8%**	**1**	**4,587**	**19.5%**
2	0.15 to <0.25	**980**	**0.2%**	**82**	**45.5%**	**2**	**442**	**45.1%**
3	0.25 to <0.50	**953**	**0.3%**	**84**	**48.9%**	**1**	**579**	**60.8%**
4	0.50 to <0.75	**861**	**0.6%**	**24**	**45.1%**	**1**	**472**	**54.8%**
5	0.75 to <2.50	**609**	**1.8%**	**82**	**48.2%**	**1**	**431**	**70.7%**
6	2.50 to <10.00	**138**	**8.0%**	**44**	**45.8%**	**1**	**243**	**176.2%**
7	10.00 to <100.00	**7**	**18.0%**	**17**	**35.2%**	**1**	**11**	**153.8%**
8	100.00 (Default)	**0**	**100.0 %**	**2**	**47.9 %**	**3**	**0**	**228.1 %**
	Total	**27,120**	**0.2%**	**910**	**46.8%**	**1**	**6,765**	**24.9%**
	As at 31 December 2022							
1	0.00 to <0.15	22,467	0.1%	576	46.3%	1	4,229	18.8%
2	0.15 to <0.25	1,639	0.2%	57	45.1%	1	507	31.0%
3	0.25 to <0.50	1,826	0.3%	91	46.4%	1	839	45.9%
4	0.50 to <0.75	39	0.6%	20	48.4%	1	26	67.2%
5	0.75 to <2.50	369	1.3%	77	48.5%	1	370	100.2%
6	2.50 to <10.00	61	5.1%	51	42.2%	2	78	127.3%
7	10.00 to <100.00	77	14.0%	28	37.6%	1	109	141.8%
8	100.00 (Default)	—	—	—	—	—	—	—
	Total	26,478	0.1%	900	46.3%	1	6,158	23.3%

The RWA density associated with institutions increased by 1.6% to 24.9% (December 2022: 23.3%) driven by increased trading activity across PD bands.

Analysis of counterparty credit risk (continued)

Table 59: CCR4 – IRB approach – CCR exposures by portfolio and PD range for corporates

	PD scale	Exposure value	Exposure weighted average PD	Number of obligors	Exposure weighted average LGD	Exposure weighted average maturity (years)	RWEA	Density of risk weighted exposure amount
	As at 31 December 2023	£m	%		%		£m	%
1	0.00 to <0.15	**45,727**	**0.1%**	**5,844**	**45.7%**	**1**	**7,017**	**15.3%**
2	0.15 to <0.25	**4,280**	**0.2%**	**572**	**35.2%**	**2**	**1,428**	**33.4%**
3	0.25 to <0.50	**1,870**	**0.3%**	**371**	**38.0%**	**2**	**1,051**	**56.2%**
4	0.50 to <0.75	**818**	**0.6%**	**177**	**42.0%**	**2**	**630**	**77.0%**
5	0.75 to <2.50	**1,932**	**1.3%**	**352**	**35.6%**	**2**	**1,696**	**87.8%**
6	2.50 to <10.00	**1,112**	**5.2%**	**310**	**40.8%**	**2**	**1,843**	**165.8%**
7	10.00 to <100.00	**204**	**16.7%**	**168**	**39.4%**	**2**	**426**	**208.2%**
8	100.00 (Default)	**1**	**100.0%**	**12**	**52.0%**	**3**	**6**	**528.3%**
	Total	**55,944**	**0.3%**	**7,806**	**44.1%**	**1**	**14,097**	**25.2%**
	As at 31 December 2022							
1	0.00 to <0.15	48,309	0.1%	5,917	45.9%	1	7,289	15.1%
2	0.15 to <0.25	4,117	0.2%	553	42.4%	2	1,634	39.7%
3	0.25 to <0.50	2,950	0.4%	378	39.1%	2	1,653	56.0%
4	0.50 to <0.75	985	0.6%	167	42.5%	2	730	74.1%
5	0.75 to <2.50	1,905	1.1%	351	44.3%	1	1,338	70.2%
6	2.50 to <10.00	818	5.0%	273	41.8%	3	1,123	137.3%
7	10.00 to <100.00	233	15.1%	165	35.4%	2	425	182.2%
8	100.00 (Default)	16	100.0%	8	23.3%	1	35	214.3%
	Total	59,333	0.3%	7,812	45.1%	1	14,227	24.0%

The RWA density associated with corporates increased by 1.2% to 25.2% (December 2022: 24.0%) primarily driven by decreased trading activity at lower PD bands.

Table 60: CCR5 – Composition of collateral for CCR exposures

This table shows the types of collateral posted or received to support or reduce CCR exposures relating to derivative transactions or SFTs, including transactions cleared through a CCP (Central Counterparty or Central Clearing Counterparties).

		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral			
		Segregated	Unsegregated	Segregated	Unsegregated	Fair value of collateral received	Fair value of posted collateral
	As at 31 December 2023	£m	£m	£m	£m	£m	£m
1	Cash	**—**	**90,471**	**—**	**85,415**	**—**	**3,501**
2	Debt	**15,930**	**20,063**	**3,404**	**4,635**	**847,208**	**854,893**
3	Equity	**5,372**	**1**	**2,954**	**—**	**235,214**	**231,815**
4	Others	**130**	**1,053**	**—**	**97**	**21,423**	**12,119**
5	**Total**	**21,432**	**111,588**	**6,358**	**90,147**	**1,103,845**	**1,102,328**
	As at 31 December 2022						
1	Cash	—	88,969	—	92,911	—	4,046
2	Debt	13,220	16,101	2,885	3,468	675,615	676,023
3	Equity	3,007	54	19	—	210,390	178,348
4	Others	200	982	—	239	19,593	10,782
5	**Total**	16,427	106,106	2,904	96,618	905,598	869,199

Analysis of counterparty credit risk (continued)

Table 61: CCR6 - Credit derivatives exposures

This table provides a breakdown of the exposures to credit derivatives products split into protection bought and sold.

		Protection bought		Protection sold	
		As at 31 December 2023	As at 31 December 2022	As at 31 December 2023	As at 31 December 2022
		£m	£m	£m	£m
Notionals					
1	Single-name credit default swaps	**172,362**	187,929	**189,798**	206,415
2	Index credit default swaps	**355,391**	434,467	**311,363**	389,268
3	Total return swaps	**4,564**	10,991	**5,245**	19,926
4	Credit options	**65,155**	50,645	**53,514**	37,077
5	Other credit derivatives	**—**	—	**—**	—
6	**Total notionals**	**597,472**	684,032	**559,920**	652,686
Fair value					
7	Positive fair value (asset)	**3,172**	3,680	**11,918**	8,504
8	Negative fair value (liability)	**(14,041)**	(7,175)	**(1,770)**	(3,701)

Table 62: CCR8 - Exposures to CCPs

This table provides a breakdown of exposures and RWAs to CCPs.

		As at 31 December 2023		As at 31 December 2022	
		Exposure value	RWEA	Exposure value	RWEA
		£m	£m	£m	£m
1	**Exposures to QCCPs (total)**		**1,678**		1,397
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	**10,067**	**201**	13,500	270
3	(i) OTC derivatives	**3,526**	**71**	6,031	121
4	(ii) Exchange-traded derivatives	**4,672**	**93**	3,654	73
5	(iii) SFTs	**1,869**	**37**	3,815	76
6	(iv) Netting sets where cross-product netting has been approved	**—**	**—**	—	—
7	Segregated initial margin	**1,150**		1,297	
8	Non-segregated initial margin	**14,697**	**294**	19,824	396
9	Prefunded default fund contributions	**4,880**	**1,183**	4,043	731
10	Unfunded default fund contributions	**12,045**	**—**	9,210	—
11	**Exposures to non-QCCPs (total)**		**23**		12
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	**23**	**23**	12	12
13	(i) OTC derivatives	**—**	**—**	—	—
14	(ii) Exchange-traded derivatives	**—**	**—**	—	—
15	(iii) SFTs	**23**	**23**	12	12
16	(iv) Netting sets where cross-product netting has been approved	**—**	**—**	—	—
17	Segregated initial margin	**—**		—	
18	Non-segregated initial margin	**—**	**—**	—	—
19	Prefunded default fund contributions	**—**	**—**	—	—
20	Unfunded default fund contributions	**—**	**—**	—	—

Analysis of counterparty credit risk (continued)

Credit valuation adjustments

CVA measures the risk from MTM losses due to deterioration in the credit quality of a counterparty to over-the-counter derivative transactions with Barclays. It is a complement to the counterparty credit risk charge, that accounts for the risk of outright default of a counterparty.

Table 63: CCR2 - Transactions subject to own funds requirements for CVA risk

Approaches to calculate CVA:

- Standardised approach: this approach takes account of the external credit rating of each counterparty, EAD from the calculation of the CCR and the effective maturity
- Advanced approach: this approach requires the calculation of the charge as; (a) a 10-day 99% VaR measure for the most recent one-year period; and (b) the same measure for a one-year stressed period. The sum of the 60 day averages for the two VaR measures is multiplied with the relevant multiplication factor, based on the number of market risk back-testing exceptions for the most recent 250 business days, to yield the capital charge

	Credit valuation adjustment (CVA) capital charge	Exposure Value £m	RWEA
	As at 31 December 2023	**£m**	**£m**
1	Total transactions subject to the Advanced method	**19,287**	**2,753**
2	(i) VaR component (including the 3× multiplier)		**686**
3	(ii) stressed VaR component (including the 3× multiplier)		**2,067**
4	Transactions subject to the Standardised method	**1,962**	**640**
5	**Total transactions subject to own funds requirements for CVA risk**	**21,249**	**3,393**
	As at 31 December 2022		
1	Total transactions subject to the Advanced method	18,365	2,514
2	(i) VaR component (including the 3× multiplier)		884
3	(ii) stressed VaR component (including the 3× multiplier)		1,630
4	Transactions subject to the Standardised method	2,243	712
5	**Total transactions subject to own funds requirements for CVA risk**	20,608	3,226

Analysis of market risk

This section contains key disclosures describing market risk profile, including regulatory as well as management measures. This includes risk weighted assets by major business lines, as well as Value at Risk measures.

Market risk RWAs are primarily generated by the following IFRS account classifications: Trading portfolio assets and liabilities; and derivative financial instruments.

Key Metrics

Total RWAs

£40.8bn

(2022:£36.8bn)

Analysis of market risk (continued)

Business scenario stresses

As part of the Group's risk management framework, on a regular basis the performance of the trading business in hypothetical scenarios characterised by severe macroeconomic conditions is modelled. Up to seven global scenarios are modelled on a regular basis, for example, a sharp deterioration in liquidity, a slowdown in the global economy, global recession, and a sharp increase in economic growth.

In 2023, the scenario analyses showed that the largest market risk related impacts would be due to a severe deterioration in financial liquidity and an associated global recession.

Review of regulatory measures

The following disclosures provide details of the regulatory measures of market risk. Refer to pages 157 and 158 of this report for more detail on regulatory measures and the differences when compared to management measures.

Barclays Group's market risk capital requirement comprises of two elements:

- the market risk of trading book positions booked to legal entities are measured under a PRA approved internal models approach, including Regulatory VaR, SVaR, IRC and CRM as required; and
- the trading book positions that do not meet the conditions for inclusion within the approved internal models approach are calculated using standardised rules

The table below summarises the regulatory market risk measures, under the internal models approach. Refer to Table 67 'MR2-A Market risk under the internal Model Approach' on page 95 for a breakdown of capital requirements by approach.

Table 64: MR3 - IMA values for trading portfolios

	Period-end	Avg.	Max	Min
As at 31 December 2023	**£m**	**£m**	**£m**	**£m**
Regulatory VaR- 1 day	**37**	**46**	**63**	**29**
Regulatory VaR- 10 day[a]	**118**	**146**	**200**	**93**
SVaR - 1 day	**113**	**88**	**117**	**63**
SVaR - 10 day[a]	**359**	**278**	**369**	**199**
IRC	**430**	**297**	**452**	**184**
As at 31 December 2022				
Regulatory VaR- 1 day	46	61	107	32
Regulatory VaR- 10 day[a]	146	194	337	101
SVaR - 1 day	65	92	158	49
SVaR - 10 day[a]	206	290	499	156
IRC	187	186	312	92

Note
a 10-day VaR results reported above are based on 1-day VaR multiplied by the square root of 10.

Average Regulatory VaR and SVaR decreased principally due to lower volatility on the period. Market volatility declined in 2023 as geopolitical tensions eased, relative to 2022, inflation declined and the pace of interest rate rises moderated.

IRC: The increase in IRC is due to higher default exposure in the Credit business during the period.

Analysis of market risk (continued)

Table 65: Breakdown of the major regulatory risk measures by portfolio[a]

	Macro	Equities	Credit	Securitised Products	Cross Markets	Fixed Income Financing	Banking	Barclays Group Treasury
As at 31 December 2023	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**
Regulatory VaR- 1 day	**32**	**13**	**14**	**5**	**9**	**3**	**0**	**10**
Regulatory VaR - 10 day[b]	**100**	**40**	**43**	**17**	**28**	**8**	**1**	**31**
SVaR- 1 day	**43**	**51**	**22**	**11**	**17**	**11**	**1**	**31**
SVaR- 10 day	**136**	**161**	**70**	**36**	**54**	**34**	**3**	**96**
IRC	**162**	**134**	**417**	**60**	**111**	**1**	**1**	**2**
As at 31 December 2022								
Regulatory VaR- 1 day	25	22	10	4	16	4	7	18
Regulatory VaR - 10 day[b]	78	69	32	11	50	12	21	56
SVaR- 1 day	46	36	14	5	17	5	9	30
SVaR- 10 day	145	114	43	15	55	15	29	93
IRC	103	14	217	10	87	1	2	23

Notes

a The table above shows the primary portfolios which are driving the trading businesses' modelled capital requirement as at 2023 year-end. The standalone portfolio results diversify at the total level and are not additive. Regulatory VaR, SVaR and IRC in the prior table show the diversified results at a Group level.

b 10-day VaR results reported above are based on 1-day VaR multiplied by the square root of 10.

Analysis of market risk (continued)

Table 66: MR1 – Market risk under the standardised approach

This table shows the RWAs and capital requirements for standardised market risk split between outright products, options and securitisation. This table includes exposures subject to the standardised approach only.

		As at 31 December 2023	As at 31 December 2022
		RWEAs	RWEAs
		£m	£m
	Outright products		
1	Interest rate risk (general and specific)	**7,380**	6,057
2	Equity risk (general and specific)	**3,494**	2,441
3	Foreign exchange risk	**1,217**	1,894
4	Commodity risk	**—**	—
	Options		
5	Simplified approach	**—**	—
6	Delta-plus approach	**900**	1,338
7	Scenario approach	**286**	210
8	Securitisation (specific risk)	**1,624**	2,009
9	**Total**	**14,901**	13,949

Standardised market risk RWAs increased by £1.0bn to £14.9bn (December 2022: £13.9bn) primarily due to increased trading activity.

Table 67: MR2-A – Market risk under the internal Model Approach (IMA)

This table shows RWAs and capital requirements under the internal models approach. The table shows the calculation of capital requirements as a function of latest and average values for each component.

		As at 31 December 2023		As at 31 December 2022	
		RWEAs	Own funds requirements	RWEAs	Own funds requirements
		£m	£m	£m	£m
1	**VaR (higher of values a and b)**	**4,244**	**340**	6,767	541
(a)	Previous day's VaR (VaRt-1)		**175**		229
(b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)		**340**		541
2	**SVaR (higher of values a and b)**	**11,208**	**897**	9,862	789
(a)	Latest available SVaR (SVaRt-1))		**593**		372
(b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)		**897**		789
3	**IRC (higher of values a and b)**	**6,181**	**494**	2,811	225
(a)	Most recent IRC measure		**494**		222
(b)	12 weeks average IRC measure		**427**		225
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	**4,227**	**338**	3,445	276
6	**Total**	**25,860**	**2,069**	22,885	1,831

Modelled market risk RWAs increased by £3.0bn to £25.9bn (December 2022: £22.9bn) primarily due to IRC and SVaR.

Analysis of securitisation exposures

This section shows the credit and counterparty credit risks arising from securitisation positions.

Securitisation positions are subject to a distinct regulatory framework and are therefore disclosed separately.

Key Metrics

Total RWAs

£17.7bn

(2022: £16.6bn)

Analysis of securitisation exposures

Table 68: SEC1 - Securitisation exposures in the non-trading book

This table shows the non-trading book securitisation exposure split by exposure type and associated regulatory capital requirements.

		Institution acts as originator							Institution acts as sponsor				Institution acts as investor			
		Traditional				Synthetic			Traditional				Traditional			
		STS		Non-STS												
			of which SRT		of which SRT		of which SRT	Sub-total	STS	Non-STS	Synthetic	Sub-total	STS	Non-STS	Synthetic	Sub-total
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	**Total exposures**	**482**	**482**	**43,594**	**4,424**	**47,441**	**47,441**	**91,517**	**5**	**9,024**	**—**	**9,029**	**2,168**	**34,488**	**—**	**36,656**
2	Retail (total)	**482**	**482**	**17,084**	**4,372**	**—**	**—**	**17,566**	**5**	**9,024**	**—**	**9,029**	**2,168**	**8,532**	**—**	**10,700**
3	Residential mortgage	**482**	**482**	**7,678**	**4,293**	**—**	**—**	**8,160**	**5**	**1,112**	**—**	**1,117**	**1,968**	**5,533**	**—**	**7,501**
4	Credit card	**—**	**—**	**8,147**	**—**	**—**	**—**	**8,147**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
5	Other retail exposures	**—**	**—**	**1,259**	**79**	**—**	**—**	**1,259**	**—**	**7,912**	**—**	**7,912**	**200**	**2,999**	**—**	**3,199**
6	Re-securitisation	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
7	Wholesale (total)	**—**	**—**	**26,510**	**52**	**47,441**	**47,441**	**73,951**	**—**	**—**	**—**	**—**	**—**	**25,956**	**—**	**25,956**
8	Loans to corporates	**—**	**—**	**23,438**	**—**	**44,867**	**44,867**	**68,305**	**—**	**—**	**—**	**—**	**—**	**16,615**	**—**	**16,615**
9	Commercial mortgage	**—**	**—**	**3,072**	**52**	**—**	**—**	**3,072**	**—**	**—**	**—**	**—**	**—**	**5,655**	**—**	**5,655**
10	Lease and receivables	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**1,625**	**—**	**1,625**
11	Other wholesale	**—**	**—**	**—**	**—**	**2,574**	**2,574**	**2,574**	**—**	**—**	**—**	**—**	**—**	**2,061**	**—**	**2,061**
12	Re-securitisation	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
As at 31 December 2022																
1	**Total exposures**	—	—	43,452	4,960	46,969	46,969	90,421	55	8,810	—	8,865	1,352	24,435	—	25,787
2	Retail (total)	—	—	16,605	4,902	—	—	16,605	55	6,717	—	6,772	1,352	7,537	—	8,889
3	Residential mortgage	—	—	7,954	4,503	—	—	7,954	—	1,694	—	1,694	1,152	4,705	—	5,857
4	Credit card	—	—	7,046	—	—	—	7,046	—	962	—	962	—	—	—	—
5	Other retail exposures	—	—	1,605	399	—	—	1,605	55	4,061	—	4,116	200	2,832	—	3,032
6	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	Wholesale (total)	—	—	26,847	58	46,969	46,969	73,816	—	2,093	—	2,093	—	16,898	—	16,898
8	Loans to corporates	—	—	23,289	—	43,040	43,040	66,329	—	70	—	70	—	13,187	—	13,187
9	Commercial mortgage	—	—	3,558	58	—	—	3,558	—	—	—	—	—	521	—	521
10	Lease and receivables	—	—	—	—	—	—	—	—	997	—	997	—	1,863	—	1,863
11	Other wholesale	—	—	—	—	3,929	3,929	3,929	—	1,026	—	1,026	—	1,327	—	1,327
12	Re-securitisation	—	—	—	—	—	—	—	—	—	0	—	0	—	—	—

The value of securitised assets in the banking book, where the Group is the Investor increased by £10.9bn to £36.7bn (December 2022: £25.8bn) primarily due to an increase in investments.

Analysis of securitisation exposures (continued)

Table 69: SEC2 - Securitisation exposures in the trading book

This table shows the trading book securitisation exposure split by exposure type and associated regulatory capital requirements.

		Institution acts as originator				Institution acts as sponsor				Institution acts as investor			
		Traditional				Traditional				Traditional			
		STS	Non-STS	Synthetic	Sub-total	STS	Non-STS	Synthetic	Sub-total	STS	Non-STS	Synthetic	Sub-total
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	**Total exposures**	—	—	—	—	—	—	—	—	—	**63**	—	**63**
2	Retail (total)	—	—	—	—	—	—	—	—	—	**47**	—	**47**
3	Residential mortgage	—	—	—	—	—	—	—	—	—	**25**	—	**25**
4	Credit card	—	—	—	—	—	—	—	—	—	—	—	—
5	Other retail exposures	—	—	—	—	—	—	—	—	—	**22**	—	**22**
6	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—
7	Wholesale (total)	—	—	—	—	—	—	—	—	—	**16**	—	**16**
8	Loans to corporates	—	—	—	—	—	—	—	—	—	—	—	—
9	Commercial mortgage	—	—	—	—	—	—	—	—	—	**3**	—	**3**
10	Lease and receivables	—	—	—	—	—	—	—	—	—	**1**	—	**1**
11	Other wholesale	—	—	—	—	—	—	—	—	—	**12**	—	**12**
12	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—
As at 31 December 2022													
1	**Total exposures**	—	—	—	—	—	—	—	—	—	79	—	79
2	Retail (total)	—	—	—	—	—	—	—	—	—	67	—	67
3	Residential mortgage	—	—	—	—	—	—	—	—	—	34	—	34
4	Credit card	—	—	—	—	—	—	—	—	—	—	—	—
5	Other retail exposures	—	—	—	—	—	—	—	—	—	33	—	33
6	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—
7	Wholesale (total)	—	—	—	—	—	—	—	—	—	12	—	12
8	Loans to corporates	—	—	—	—	—	—	—	—	—	—	—	—
9	Commercial mortgage	—	—	—	—	—	—	—	—	—	4	—	4
10	Lease and receivables	—	—	—	—	—	—	—	—	—	2	—	2
11	Other wholesale	—	—	—	—	—	—	—	—	—	6	—	6
12	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—

Analysis of securitisation exposures (continued)

Table 70: SEC3 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor

This table shows the non-trading book securitisation exposures, where the institution acts as originator or as sponsor.

		Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	**Total exposures**	**58,284**	**1,148**	**749**	**246**	**0**	**47,512**	**8,313**	**4,602**	**—**	**8,850**	**1,829**	**797**	**—**	**708**	**146**	**64**	**—**
2	Traditional transactions	**11,712**	**600**	**629**	**121**	**0**	**147**	**8,313**	**4,602**	**—**	**22**	**1,829**	**797**	**—**	**2**	**146**	**64**	**—**
3	Securitisation	**11,712**	**600**	**629**	**121**	**0**	**147**	**8,313**	**4,602**	**—**	**22**	**1,829**	**797**	**—**	**2**	**146**	**64**	**—**
4	Retail underlying	**9,784**	**186**	**323**	**105**	**—**	**147**	**6,139**	**4,112**	**—**	**22**	**1,253**	**724**	**—**	**2**	**100**	**58**	**—**
5	*Of which STS*	***459***	**—**	**—**	**—**	**—**	**—**	***5***	***454***	**—**	**—**	**—**	***45***	**—**	**—**	***0***	***4***	**—**
6	Wholesale	**1,928**	**414**	**306**	**16**	**0**	**—**	**2,174**	**490**	**—**	**—**	**576**	**73**	**—**	**—**	**46**	**6**	**—**
7	*Of which STS*	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
8	Re-securitisation	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
9	Synthetic transactions	**46,572**	**548**	**120**	**125**	**—**	**47,365**	**—**	**—**	**—**	**8,828**	**—**	**—**	**—**	**706**	**—**	**—**	**—**
10	Securitisation	**46,572**	**548**	**120**	**125**	**—**	**47,365**	**—**	**—**	**—**	**8,828**	**—**	**—**	**—**	**706**	**—**	**—**	**—**
11	Retail underlying	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
12	Wholesale	**46,572**	**548**	**120**	**125**	**—**	**47,365**	**—**	**—**	**—**	**8,828**	**—**	**—**	**—**	**706**	**—**	**—**	**—**
13	Re-securitisation	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
As at 31 December 2022																		
1	**Total exposures**	49,095	10,031	423	190	0	47,344	7,714	4,680	—	9,488	1,689	706	—	759	135	56	—
2	Traditional transactions	11,286	1,100	423	45	0	459	7,714	4,680	—	69	1,689	706	—	5	135	56	—
3	Securitisation	11,286	1,100	423	45	0	459	7,714	4,680	—	69	1,689	706	—	5	135	56	—
4	Retail underlying	9,763	772	183	43	—	459	5,961	4,340	—	69	1,223	655	—	5	98	52	—
5	*Of which STS*	*55*	—	—	—	—	—	*55*		—	—	*5*	—	—	—	*0*	—	—
6	Wholesale	1,523	328	240	2	0	—	1,753	340	—	—	466	51	—	—	37	4	—
7	*Of which STS*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	Synthetic transactions	37,809	8,931	—	145	0	46,885	—	—	—	9,419	—	—	—	754	—	—	—
10	Securitisation	37,809	8,931	—	145	—	46,885	—	—	—	9,419	—	—	—	754	—	—	—
11	Retail underlying	—	—	—		—	—	—	—	—	—	—	—	—		—	—	—
12	Wholesale	37,809	8,931	—	145	0	46,885	—	—	—	9,419	—	—	—	754	—	—	—
13	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Analysis of securitisation exposures (continued)

Table 71: SEC4 - Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor

This table shows the non-trading book securitisation exposures, where the institution acts as investor.

		Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	**Total exposures**	**34,285**	**1,935**	**327**	**108**	**—**	**1,523**	**902**	**34,230**	**0**	**611**	**167**	**5,365**	**1**	**49**	**13**	**429**	**0**
2	Traditional transactions	**34,285**	**1,935**	**327**	**108**	**—**	**1,523**	**902**	**34,230**	**0**	**611**	**167**	**5,365**	**1**	**49**	**13**	**429**	**0**
3	Securitisation	**34,285**	**1,935**	**327**	**108**	**—**	**1,523**	**902**	**34,230**	**0**	**611**	**167**	**5,365**	**1**	**49**	**13**	**429**	**0**
4	Retail underlying	**9,893**	**802**	**4**	**—**	**0**	**—**	**525**	**10,175**	**0**	**—**	**88**	**1,572**	**1**	**—**	**7**	**126**	**0**
5	*Of which STS*	***2,168***	**—**	**—**	**—**	**—**	**—**	***200***	***1,968***	**—**	**—**	***20***	***197***	**—**	**—**	***2***	***16***	**—**
6	Wholesale	**24,392**	**1,133**	**323**	**108**	**—**	**1,523**	**377**	**24,055**	**0**	**611**	**79**	**3,793**	**0**	**49**	**6**	**303**	**0**
7	*Of which STS*	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
8	Re-securitisation	**—**	**—**	**—**	**—**	**0**	**—**	**—**	**—**	**0**	**—**	**—**	**—**	**0**	**—**	**—**	**—**	**0**
9	Synthetic transactions	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
10	Securitisation	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
11	Retail underlying	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
12	Wholesale	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
13	Re-securitisation	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
As at 31 December 2022																		
1	**Total exposures**	22,137	3,044	663	19	3	1,978	984	22,903	1	773	233	3,698	5	62	19	296	0
2	Traditional transactions	22,137	3,044	663	19	3	1,978	984	22,903	1	773	233	3,698	5	62	19	296	0
3	Securitisation	22,137	3,044	663	19	3	1,978	984	22,903	1	773	233	3,698	5	62	19	296	0
4	Retail underlying	8,817	125	13	1	0	—	251	8,705	0	—	48	1,260	1	—	4	101	0
5	*Of which STS*	1,352	—	—	—	—	—	200	1,152	—	—	20	115	—	—	2	9	—
6	Wholesale	13,320	2,919	650	18	3	1,978	733	14,198	1	773	185	2,438	4	62	15	195	0
7	*Of which STS*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Re-securitisation	—	—	—	—	0	—	—	—	0	—	—	—	0	—	—	—	0
9	Synthetic transactions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	Securitisation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	Retail underlying	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	Wholesale	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	Re-securitisation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

The banking book securitised assets, where the Group acts as investor under Securitisation risk weight treatment, EAD increased by £10.7bn to £36.6bn (December 2022: £25.9bn) and RWA by £1.4bn to £6.1bn (December 2022: £4.7bn) primarily driven by business activity.

Analysis of securitisation exposures(continued)

Table 72: SEC5 - Exposures securitised by the institution - Exposures in default and specific credit risk adjustments

This table shows the outstanding nominal amounts where the institution acts as originator or as sponsor together with those exposures that are deemed as defaulted, where specific credit risk adjustments have been raised.

		Exposures securitised by the institution - Institution acts as originator or as sponsor		
		Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
			Of which exposures in default	
As at 31 December 2023		£m	£m	£m
1	Total exposures	**154,468**	**2,846**	**—**
2	Retail (total)	**48,063**	**1,943**	**—**
3	residential mortgage	**28,999**	**1,747**	**—**
4	credit card	**8,147**	**45**	**—**
5	other retail exposures	**9,418**	**148**	**—**
6	re-securitisation	**1,499**	**3**	**—**
7	Wholesale (total)	**106,405**	**903**	**—**
8	loans to corporates	**73,427**	**209**	**—**
9	commercial mortgage	**29,847**	**524**	**—**
10	lease and receivables	**—**	**—**	**—**
11	other wholesale	**3,131**	**170**	**—**
12	re-securitisation	**—**	**—**	**—**
As at 31 December 2022				
1	Total exposures	157,914	1,851	—
2	Retail (total)	46,525	966	—
3	residential mortgage	30,340	904	—
4	credit card	7,046	24	—
5	other retail exposures	7,435	34	—
6	re-securitisation	1,704	4	—
7	Wholesale (total)	111,389	885	—
8	loans to corporates	71,683	151	—
9	commercial mortgage	32,808	509	—
10	lease and receivables	—	—	—
11	other wholesale	6,898	225	—
12	re-securitisation	—	—	—

The value of exposures securitised, where the Group acts as either originator or sponsor, decreased by £3.4bn to £154.5bn (December 2022: £157.9bn) primarily driven by amortisation.

Analysis of operational risk

This section contains details of capital requirements for operational risk, expressed as RWAs, and an analysis of the Group's operational risk profile, including events which have had a significant impact in 2023.

Barclays group applies TSA for operational risk regulatory capital purposes

Total RWAs

£45.6bn

(2022: £43.8bn)

Summary of performance in the period

During 2023, total operational risk losses reduced to £141m (2022: £161m) while the number of recorded events for 2023 (2,914) remained broadly in line with the level for 2022 (2,964). The total operational risk losses for the year were mainly driven by events falling within the Execution, Delivery & Process Management and External Fraud categories, which tend to be high volume but low impact events.

Key Metrics in 2023

83%

of Barclays Group's net reportable operational risk events had a loss value of £50,000 or less

40%

of losses are from events aligned to Execution, Delivery and Process Management

85%

of events by number are due to External Fraud

56%

of losses are from events aligned to External Fraud

Analysis of operational risk

Table 73: OR1 - Operational risk own funds requirements and risk-weighted exposure amounts

The following table details the Group's operational risk RWAs. Barclays has approval from the PRA to calculate its operational risk capital requirement using TSA.

See pages 180 to 183 for information on operational risk management.

As at 31 December 2023		Relevant indicator			Own funds requirements	Risk weighted exposure amount
		Year-3	Year-2	Last year		
	Banking activities	£m	£m	£m	£m	£m
1	Banking activities subject to basic indicator approach (BIA)	—	—	—	—	—
2	Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches	**22,353**	**25,237**	**25,930**	**3,645**	**45,558**
3	Subject to TSA:	**22,353**	**25,237**	**25,930**		
4	Subject to ASA;	—	—	—		
5	Banking activities subject to advanced measurement approaches AMA	—	—	—	—	—

As at 31 December 2022						
1	Banking activities subject to basic indicator approach (BIA)	—	—	—	—	—
2	Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches	**22,257**	**22,353**	**25,155**	**3,505**	**43,815**
3	Subject to TSA:	**22,257**	**22,353**	**25,155**		
4	Subject to ASA:	—	—	—		
5	Banking activities subject to advanced measurement approaches AMA	—	—	—	—	—

Operational risk RWAs increased by £1.7bn to £45.6bn (December 2022: £43.8bn) primarily driven by the inclusion of higher 2023 CC&P and Barclays UK income compared to 2020.

Capital set aside for operational risk is intended to cover the losses resulting from human errors, inadequate or failed internal processes and systems or external events. To assess minimum capital requirements for operational risk, the standardised approach (TSA) is applied. Under TSA, banks are required to hold regulatory capital for operational risk equal to the annual average, calculated over a rolling three-year period, of the relevant income indicator, multiplied by a conversion percentage factor specific to business lines in accordance with the regulatory requirements.

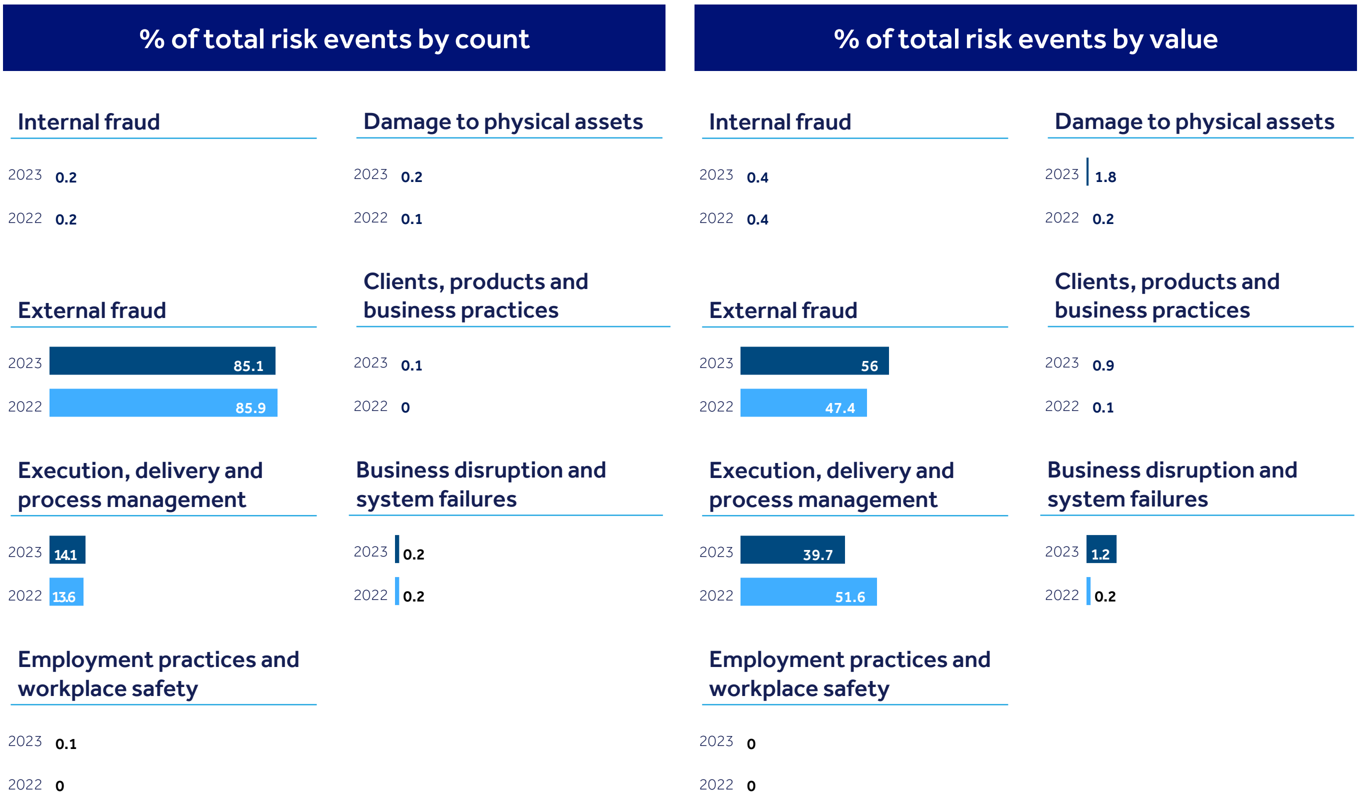
Analysis of operational risk (continued)

Operational risk profile

Within operational risk, there are a large number of smaller value risk events. In 2023, 83% (2022: 84%) of the Group's reportable operational risk events by volume had a value of less than £50,000 each. Cumulatively, events under this £50,000 threshold accounted for only 33% (2022: 32%) of the Group's total net operational risk losses. A small proportion of operational risk events have a material impact on the financial results of the Group.

Operational risk events by BASEL event category[a]

The analysis below presents the Group's operational risk events by Basel event category:



Note

a The data disclosed includes operational risk losses for reportable events having net impact of > £10,000 and excludes events that are compliance or legal risk, aggregate and boundary events. A boundary event is an operational risk event that results in a credit risk impact. Due to the nature of risk events that keep evolving, prior year losses have been updated.

- External Fraud remains the category with the highest frequency of events at 85% of total events in 2023 (2022: 86%). Impacts from events arising from External Fraud increased slightly in 2023 to £79m (2022: £76m) and accounted for 56% of total 2023 losses (2022: 47%). In this category, high volume, low value events are driven by transactional fraud often related to debit and credit card usage. [Note: total External Fraud losses in 2023 including those from events with impact <£10,000 amounted to £183m (2022: £190m)]
- Execution, Delivery and Process Management impacts decreased to £56m (2022: £83m) and accounted for 40% (2022: 52%) of total operational risk losses. The events in this category are typical of the banking industry as a whole where high volumes of transactions are processed on a daily basis, mapping mainly to Barclays Transaction Operations risk type. The overall frequency of events in this category remained stable at 14% of total events by volume (2022: 14%)

Investment continues to be made in improving the control environment across the Group. Specific areas of focus include new and enhanced fraud prevention systems and tools to combat the increasing level of fraud attempts being made whilst minimising disruption to genuine transactions. Fraud remains an industry wide threat and the Group continues to work closely with external partners on various prevention initiatives. Additionally, the Group continues to invest in its processing infrastructure to manage the risk of processing errors as well as ensuring scalability of operations.

Operational Resilience remains a key area of focus for the Group, having been reinforced in recent years due to potential operational disruption from the COVID-19 pandemic. The Group continues to strengthen its resilience approach across its most important business services to improve recoverability and assurance thereof by reviewing scenarios based on current global climates.

Operational risk associated with cybersecurity remains a top focus for the Group. The sophistication of threat actors continues to grow as noted by multiple external risk events observed throughout the year. Ransomware attacks across the global Barclays supplier base were observed and we worked closely with the affected suppliers to manage potential impacts to the Group and its clients and customers. The Group's cybersecurity events were managed within its risk tolerances and there were no material loss events associated with cybersecurity recorded within the event categories above.

For further information, refer to the operational risk management section.

Risk management strategy, governance and risk culture

In this section we describe the approaches and strategies for managing risks at Barclays Group. It contains information on how risk management functions are organised, how they maintain their independence and foster a sound risk culture throughout the Barclays Group.

The Enterprise Risk Management Framework (ERMF) sets out the tools, techniques and organisational arrangements to enable material risks to be identified and understood, see pages 106 to 107

A discussion of how our risk management strategy is designed to foster a sound risk culture is contained on pages 109 to 111

A governance structure, encompassing the organisation of the function as well as executive and Board committees, supports the continued application of the ERMF. This is discussed in pages 108 to 109

Page 111 describe group-wide risk management tools that support risk management, the Barclays Group ExCo and the Board in discharging their responsibilities, and how they are applied in the strategic planning cycle

Risk management strategy, governance and risk culture

Barclays Group's risk management strategy

This section introduces the Barclays Group's approach to managing and identifying risks, and for fostering a sound risk culture.

Enterprise Risk Management Framework (ERMF)

The ERMF outlines the highest level principles for risk management by setting out standards, objectives and key responsibilities of different groups of employees of the Group. It is approved by the Barclays PLC Board on recommendation of the Group Board Risk Committee and Group Chief Risk Officer.

The ERMF sets out:

- principal risks faced by the Group, which guides the organisation of risk management processes
- risk appetite requirements. This helps define the level of risk we are willing to undertake in our business
- risk management and segregation of duties: The ERMF clearly defines a Three Lines of Defence model
- roles and responsibilities for key risk management and governance structure: The accountabilities of the Group CEO, Group CRO, General Counsel and other senior managers, as well as overview of Barclays PLC committees

The ERMF is complemented by frameworks, policies and standards that are mainly aligned to individual principal risks:

- frameworks cover high level principles guiding the management of principal risks, and set out details of which policies are needed, and high level governance arrangements
- policies set out the control objectives and high level requirements to address the key principles articulated in their associated frameworks. Policies state what those within scope are required to do
- standards set out the detail of the control requirements to ensure the control objectives set by the policies are met

Segregation of duties - the 'Three Lines of Defence' model

The ERMF sets out clear lines of defence model. All colleagues are responsible for understanding and managing risks within the context of their individual roles and responsibilities, as set out below

- The first line comprises all employees engaged in the revenue generating and client facing areas of the Group and all associated support functions, including Finance, Operations, Treasury, Human Resources, etc. The first line is responsible for identifying and managing the risks in which they are engaged, operating within applicable limits, and escalating risk events or issues as appropriate. Employees in the first line have primary responsibility for their risks and their activities are subject to oversight from the relevant parts of the second and third lines
- The second line is comprised of the Risk and Compliance functions. The role of the second line is to establish the limits, rules and constraints, and the frameworks, policies and standards under which all activities shall be performed, consistent with the risk appetite of the Group, and to oversee the performance of the Group against these limits, rules and constraints. Controls for first line activities, will ordinarily be established by the control officers operating within the control framework of the firm. These will remain subject to oversight by the second line
- The third line of defence is Internal Audit, who are responsible for providing independent assurance over the effectiveness of governance, risk management and controls over current, systemic and evolving risks
- The Legal function provides support to all areas of the bank and is not formally part of any of the three lines of defence. The Legal function is responsible for proactively identifying, communicating and providing legal advice on applicable laws, rules and regulations. Except in relation to the legal advice it provides or procures, it is subject to second line oversight with respect to its own operational and compliance risks, as well as with respect to the legal risk to which the bank is exposed

Principal risks

The ERMF identifies nine principal risks (see managing risk in the strategic report section) namely: credit risk, market risk, treasury and capital risk, climate risk, operational risk, model risk, compliance risk, reputation risk and legal risk. Note that 'compliance risk' replaced 'conduct risk' in 2023 with an expanded definition; see page 113 for more information.

Each of the principal risks is overseen by an accountable executive within the Group who is responsible for overseeing and/or assigning responsibilities for the framework, policies and standards that set out associated responsibilities and expectations, and detail the related requirements around risk management. In addition, certain risks span across more than one principal risk.

The following table summarises the principal risks and their definitions.

Risk management strategy, governance and risk culture (continued)

Principal Risks

- **Credit risk:** The risk of loss to the Group from the failure of clients, customers or counterparties, including sovereigns, to fully honour their obligations to the Group, including the whole and timely payment of principal, interest, collateral and other receivables.
- **Market risk:** The risk of loss arising from potential adverse changes in the value of the Group's assets and liabilities from fluctuation in market variables including, but not limited to, interest rates, foreign exchange, equity prices, commodity prices, credit spreads, implied volatilities and asset correlations.
- **Treasury and Capital risk:**
  - **Liquidity risk:** The risk that the Group is unable to meet its contractual or contingent obligations or that it does not have the appropriate amount, tenor and composition of funding and liquidity to support its assets.
  - **Capital risk:** The risk that the Group has an insufficient level or composition of capital to support its normal business activities and to meet its regulatory capital requirements under normal operating environments or stressed conditions (both actual and as defined for internal planning or regulatory testing purposes). This also includes the risk from the Group's pension plans.
  - **Interest rate risk in the banking book:** The risk that the Group is exposed to capital or income volatility because of a mismatch between the interest rate exposures of its (non-traded) assets and liabilities.
- **Climate Risk:** The impact on Financial and Operational Risks arising from climate change through, physical risks, risks associated with transitioning to a lower carbon economy and connected risks arising as a result of second order impacts of these two drivers on portfolios.
- **Operational risk:** The risk of loss to the Group from inadequate or failed processes or systems, human factors or due to external events where the root cause is not due to Credit or Market risks.
- **Model risk:** The potential for adverse consequences from decisions based on incorrect or misused model outputs and reports.
- **Compliance risk:** The risk of poor outcomes for, or harm to, customers, clients and markets, arising from the delivery of the firm's products and services (also known as 'Conduct Risk') and the risk to Barclays, its clients, customers or markets from a failure to comply with the laws, rules and regulations applicable to the firm (also known as Laws, Rules and Regulations Risk 'LRR Risk').
- **Reputation risk:** The risk that an action, transaction, investment, event, decision, or business relationship will reduce trust in the firm's integrity and/or competence.
- **Legal risk:** The risk of loss or imposition of penalties, damages or fines from the failure of the firm to meet applicable laws, rules and regulations or contractual requirements or to assert or defend its intellectual property rights.

Risk appetite

Risk appetite is defined as the level of risk which the Group is prepared to accept in carrying out its activities. It provides a basis for ongoing dialogue between management and Board with respect to the Group's current and evolving risk profile, allowing strategic and financial decisions to be made on an informed basis.

Risk appetite is approved by the Barclays PLC Board in aggregate and disseminated across legal entities and businesses, supported by limits to enable and control specific exposures and activities that have material concentration risk implications.

Risk management strategy, governance and risk culture (continued)

Roles and responsibilities in the management of risk

Certain roles within the Group carry specific responsibilities and accountabilities with respect to risk management and the ERMF. These include the following:

- Group Chief Executive Officer (CEO): The Group CEO is accountable for leading the development of the Group's strategy and business plans that align to the Group's Purpose, Values and Mindset within the approved Risk Appetite. The CEO also leads, manages and organises the Executive Management to execute the strategy and business plans, and manages the Group's financial and operational performance within the approved Risk Appetite. Importantly, the Group CEO appoints senior risk owners including the Group Chief Risk Officer, the Group Chief Compliance Officer, the Group General Counsel, and relevant members of Executive Management
- Group Chief Risk Officer (CRO): The Group CRO leads the Risk Function across Barclays Group. In addition to developing and maintaining the ERMF, specific accountabilities of the Group CRO include:
  - management of the risk appetite setting processes including preparing and recommending to the Barclays PLC Board Risk Committee the Group risk appetite, and its allocation to the trading entities (Barclays Bank UK PLC and Barclays Bank PLC)
  - development, operation and maintenance of a comprehensive risk management framework to monitor and manage the risk profile against the approved Risk Appetite. This includes oversight of the following principal risks: Credit Risk, Market Risk Operational Risk, Climate Risk, Model Risk and Operational Risk
  - use mandate to identify and assign actions to be taken by management to comply with the ERMF and remain within Risk Appetite. This extends to suspending or stopping decisions as necessary
  - provision of accurate, transparent and timely reporting of the risk profile of Barclays.
  - bringing a risk perspective to compensation decisions
  - final approval of lending or investing decisions either directly or via delegated authority
- Group Chief Compliance Officer: The Group Chief Compliance Officer is accountable to the Group CEO to lead the Compliance Function. Specific accountabilities include:
  - leadership and oversight of the Compliance function for the Group
  - overseeing that the Group's compliance and reputation risks are effectively managed and escalated to the Board where appropriate
  - ownership of, and monitoring compliance with, the Reputation Risk Management Framework (RRMF) and Compliance Risk Management Framework (CRMF) within the Bank;
  - inputting into compensation structures, objectives and performance management of employees who can expose the Group to significant risk;
  - oversight of the whistleblowing process within the Group; and
  - using mandate to access any part of the legal entity and any information, bringing to the attention of line and senior management or the Board, as appropriate, any situation that is of concern from a compliance or reputation risk management perspective that could materially violate the approved risk appetite guidelines
- Group General Counsel: The Group General Counsel receives delegated authority from the Group CEO and is required to:
  - develop and maintain the legal Risk Management Framework, define legal Risk Policies, and develop the Group-wide risk appetite for legal risk
  - oversee that the Legal function discharges its responsibilities under other Risk Frameworks, including its responsibility to proactively identify, communicate and provide legal advice on applicable laws, rules and regulations
  - escalate any unresolved Legal Risk concerns directly to the Group CEO, and/or Chair of appropriate Board Committees
- Group Chief Controls Officer: The Chief Controls Office, led by the Group Chief Controls Officer, sits in the First Line of Defence and is responsible for overseeing the practical implementation of operational, compliance and reputation risk controls and methodologies across the Group. To that end the Chief Controls Officer defines a control framework and oversees its execution. The control framework directs businesses to manage risk exposure within approved operational risk appetites, to record risk events and issues, and to complete risk and control self-assessments

Senior Managers Regime

A number of members of the Barclays PLC Board, the majority of the Group Executive Committee and a limited number of specified senior individuals are also subject to additional rules included within the Senior Managers Regime (SMR), which clarifies their accountability and responsibilities. Those designated with a Senior Manager Function under the SMR are held to four specific rules of conduct in which they must:

- take reasonable steps to establish that the business of the Group for which they are responsible is controlled effectively
- take reasonable steps to establish that the business of the Group for which they are responsible complies with relevant regulatory requirements and standards of the regulatory system
- take reasonable steps to make certain that any delegation of their responsibilities is to an appropriate individual and that they oversee the discharge of the delegated responsibilities effectively
- disclose appropriately any information to the FCA or PRA, of which they would reasonably expect notice

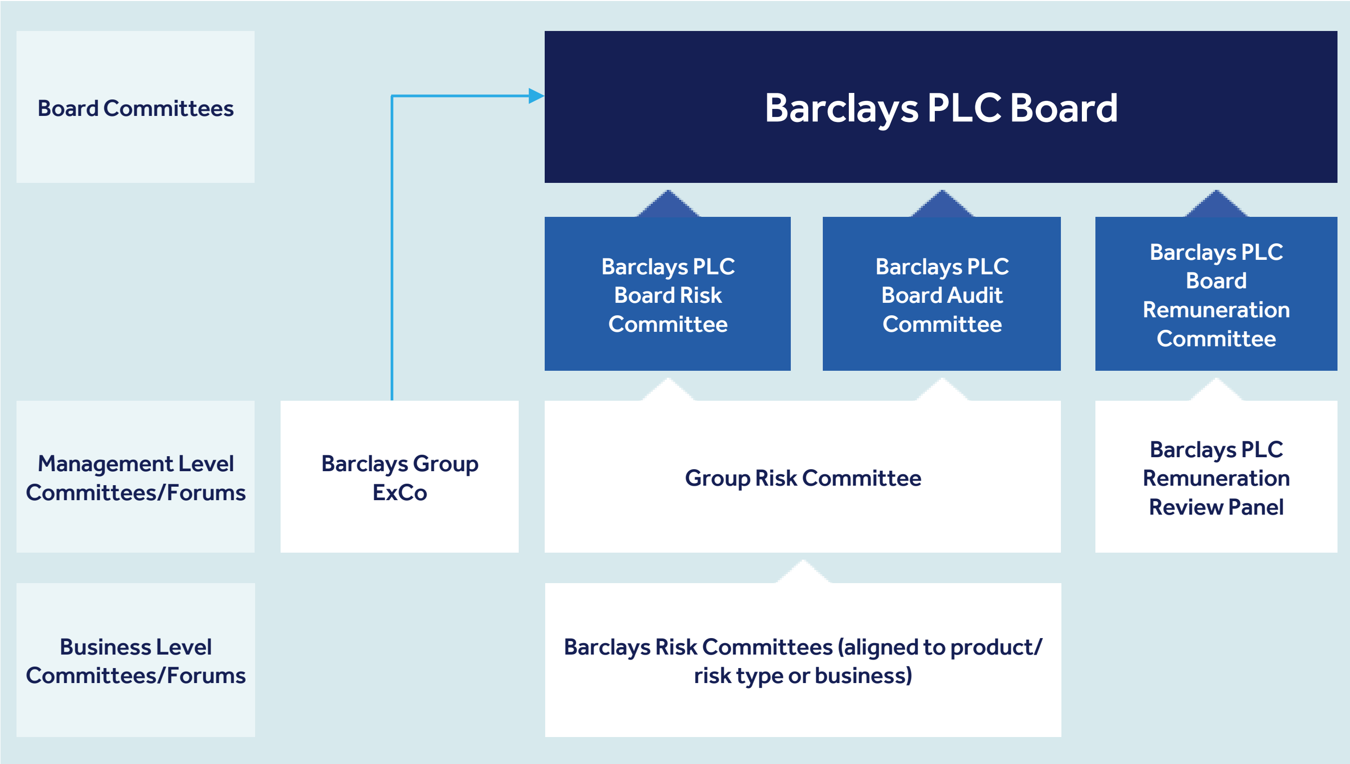
Risk management strategy, governance and risk culture (continued)

Risk committees

Various committees also fulfil important roles and responsibilities. Barclays' various risk committees consider risk matters relevant to their business, and escalate as required to the Group Risk Committee (GRC), whose Chair, in turn, escalates to the Barclays PLC Board Risk Committee and the Barclays PLC Board.

The Barclays PLC Board receives regular information on the risk profile of the bank, and has ultimate responsibility for risk appetite and capital plans.

In addition to setting the risk appetite of the Group, the Board is responsible for approving the ERMF, and reviewing reputation risk matters.



Further, there are two Board-level committees which oversee the application of the ERMF and implementation of key aspects, the Barclays PLC Board Risk Committee (BRC) and the Barclays PLC Board Audit Committee (BAC). Membership of these committees is comprised solely of non-executive directors providing independent oversight and challenge. Additionally, the Barclays PLC Board Remuneration Committee oversee pay practices focusing on aligning pay to sustainable performance.

- The Barclays PLC Board Risk Committee (BRC): The BRC monitors the Group's risk profile against the agreed appetite. Where actual performance differs from expectations, the actions taken by management are reviewed to ascertain that the BRC is comfortable with them. The BRC also reviews certain key risk methodologies, the effectiveness of risk management, and the Group's risk profile, including the material issues affecting each business portfolio and forward risk trends. The committee also commissions in-depth analyses of significant risk topics, which are presented by the Group CRO or senior risk managers
- The Barclays PLC Board Audit Committee (BAC): The BAC receives regular reports on the effectiveness of internal control systems, quarterly reports on material control issues of significance, and quarterly papers on accounting judgements (including impairment), and a quarterly review of the adequacy of impairment allowances
- The Barclays PLC Board Remuneration Committee (RemCo): The RemCo receives proposals on ex-ante and ex-post risk adjustments to variable remuneration based on risk management performance including events, issues and the wider risk profile. These inputs are considered in the setting of performance incentives

The terms of reference and additional details on membership and activities for each of the principal Board committees are available from the corporate governance section of the Barclays website at: //home.barclays/who-we-are/our-governance/board-committees/

The GRC is the most senior executive body responsible for reviewing and monitoring the risk profile of the Group. This includes coverage of all principal risks (with the exception of reputation risk matters), and any other material risks, to which the Group is exposed. The GRC reviews and recommends the proposed risk appetite and relative limits to the BRC. The committee covers all business units and legal entities with the Group and incorporates specific coverage of Barclays Bank PLC Group.

Risk management strategy, governance and risk culture (continued)

Coverage of risk reports to executive and Board risk committees

Chairs of Risk Committees at executive and Board levels specify the information they require to discharge their duties. Advance committee calendars are agreed with the committee chair. Topics that are regularly covered include:

- risk profile, across types
- risk appetite, results of stress tests and perspective on medium-term plans and strategy
- political and economic developments, and their potential impacts on Barclays and its customers
- impacts of key market developments on the risk profile of the Group
- risk management approaches and their effectiveness

Reports are presented by appropriate members of senior management, including CROs and heads of businesses. Occasionally subject matter experts are delegated to present specific topics of interest. Report presenters are responsible for following processes for creating reports that include appropriate controls and that these controls are operated effectively.

Frameworks, policies and standards

Frameworks, policies and standards set out the governance around Barclays' activities:

- frameworks cover high level principles guiding the management of principal risks, and set out details of what policies are needed, and high level governance arrangements
- policies set out the control objectives and high level requirements to address the key principles articulated within their associated frameworks. Policies state 'what' those within scope are required to do
- standards set out the detail of the control requirements to ensure the control objectives set by the policies are met

The Barclays Group CRO is accountable for the development and implementation of frameworks, policies and associated standards for credit, market, treasury and capital, climate, operational and model risks. The Group Chief Compliance Officer is likewise accountable for compliance risk and reputation risk, and the Group General Counsel for legal risk in relation to the relevant frameworks, policies and associated standards. The Group CRO and Group Chief Compliance Officer have the right to require amendments to any frameworks, policies or standards in the Group, for any reason.

Frameworks, policies and standards are subject to annual review, and challenge by the relevant functions.

Assurance

Assurance is undertaken to assess the control environment. The Controls Assurance and Controls Testing Standard defines the requirements for controls assurance and controls testing.

The Risk function carries out conformance reviews to assess the implementation of, and adherence to, principal risk framework and component policies. Similar activities are undertaken in the first line by the Chief Controls Office in respect of certain policies, standards, controls,or processes.

Internal Audit is responsible for the independent review of risk management and the control environment. Its objective is to provide reliable, valued and timely assurance to the Board and executive management over the effectiveness of controls, mitigating current and evolving material risks and thus enhancing the control culture within the Group. The Board Audit Committee reviews and approves Internal Audit's plans and resources, and evaluates the effectiveness of Internal Audit. An assessment by independent external advisers is also carried out periodically.

Effectiveness of risk management arrangements

The ERMF and its component principal risks are subject to control testing assurance reviews to confirm its effectiveness or identify issues to be mitigated. Management and the Board are satisfied that the design of the ERMF and its components are appropriate given the risk profile of the Group.

Learning from our mistakes

Learning from mistakes is central to Barclays' values and mindset, demonstrating a commitment to excellence and taking accountability for failure as well as success. The Group seeks to learn lessons on a continuous basis to support achievement of strategic objectives, increase operational excellence and to meet commitments to stakeholders, including colleagues, customers, shareholders and regulators.

Barclays has implemented a lessons learned process, setting out requirements for the completion of lessons learned assessments in response to internal and external risk events. The approach is aligned to the Three Lines of Defence model (see page 106), with businesses and functions accountable for undertaking lessons learned assessments; the Second Line providing oversight and challenge; and independent review by Internal Audit.

Core components of the lessons learned approach include:

- defined triggers for when lessons learned assessments must be completed
- requirements and guidance for the completion of root cause analysis to identify the causes of risk events impacting the Group
- standardised templates to report conclusions consistently to relevant management forums and committees
- use of a central system to record completed lessons learned assessments and to facilitate sharing across the Group

Risk management strategy, governance and risk culture (continued)

Barclays' risk culture

Risk culture can be defined as the norms, attitudes and behaviours related to risk awareness, risk taking and risk management. This is reflected in how the Group identifies, escalates and manages risk matters.

Barclays is committed to maintaining a robust risk culture in which:

- management expect, model and reward the right behaviours from a risk and control perspective; and
- colleagues identify, manage and escalate risk and control matters, and meet their responsibilities around risk management.

The Group CEO works with the Executive Management to embed a sound risk culture within the firm, with particular regard to the identification, escalation and management of risk matters, in accordance with the ERMF. This is supported by our Purpose, Values and Mindset, as well by as by setting a standard of consistent excellence. Specifically, all employees regardless of their positions, functions or locations must play their part in the Group's risk management. Employees are required to be familiar with risk management policies which are relevant to their responsibilities, know how to escalate actual or potential risk issues, and have a role-appropriate level of awareness of the risk management process as defined by the ERMF.

Our Code of Conduct – the Barclays Way

Globally, all colleagues must attest to the 'Barclays Way', our Code of Conduct, and comply with all frameworks, policies and standards applicable to their roles. The Code of Conduct outlines the Purpose, Values and Mindset which govern our 'Barclays Way' of working across our business globally. It constitutes a reference point covering all aspects of colleagues' working relationships, and provides guidance on working with other Barclays employees, customers and clients, governments and regulators, business partners, suppliers, competitors and the broader community. See *://home.barclays/sustainability/esg-resource-hub/statements-and-policy-positions/* for more details.

Group-wide risk management tools

To support Group-wide management of risks, the Board uses risk appetite, mandate and scale, and stress testing as key inputs in the annual planning cycle, including setting of the Group's strategy. The following describes in further detail Group-wide risk management tools used as part of this process.

Risk appetite

Risk appetite is defined as the level of risk which the Group is prepared to accept in carrying out its activities.

Risk appetite provides a basis for ongoing dialogue between management and Board with respect to the Group's current and evolving risk profile and enables strategic and financial decisions to be made on an informed basis.

Thus, the risk appetite setting process aims to consider the material risks Barclays is exposed to under its business plans.

The risk appetite aims to:

- specify the level of risk we are willing to take to enable specific risk taking activities;
- consider all principal risks individually and, where appropriate, in aggregate; and
- consistently communicate the acceptable level of risk for different risk types.

Risk appetite is approved by the Board and must be formally reviewed at least annually in conjunction with the Medium Term Planning (MTP) process.

Risk appetite is formally expressed by the Board as the acceptable level of deterioration in a set of key financial parameters under a severe but plausible stress scenario defined as the internal stress test. For 2023, the key financial parameters are listed below.

Measure relevant to strategy and risk	Link between strategy and risk profile
Profit after tax	Avoids short term performance that could impact confidence of regulators, liquidity providers, investors and other stakeholders.
Common Equity Tier 1 (CET1)	Monitors capital adequacy in relation to capital plan, targets and regulatory hurdle rates.
Liquidity Risk Appetite	Monitors and protects the liquidity position of the bank and its ability to meet financial obligations under normal conditions and in a stress.

Based on the specified risk appetite, the Group develops both stress loss and mandate & scale limits to control specific activities.

Climate risk became a principal risk in 2022 and therefore Barclays' strategic plans and risk appetite must support Barclays' ambition to reduce emissions to net zero by 2050.

Measure relevant to strategy and risk	Link between strategy and risk profile
Climate Risk	Protects the long term climate ambitions of the bank and its ability to meet disclosed targets.

Stress loss limits

Stress loss limits are derived from the results of the internal stress test. Limits are a reflection of the losses absorbed by the stressed capital plans within risk appetite and provide a crucial link between the strategic planning process and risk appetite. Stress loss limits are conservatively assumed to be additive but in practice stresses may not happen at the same time. Risk management may over-allocate stress loss limits where they deem it unlikely all businesses will require full limit utilisation at the same time. Aggregate utilisation across all risk types is monitored against both the aggregate of stress loss limits and losses absorbed by the stressed capital plan. It is the role of Risk to manage the over-allocation within capital constraints.

Risk management strategy, governance and risk culture (continued)

Mandate and scale

Mandate and scale exposure controls is a risk management approach that seeks to formally review and control business activities to make sure that they are within mandate (i.e. aligned with expectations), and are of an appropriate scale (relative to the risk and reward of the underlying activities) based on an appropriately detailed system of controls. The use of controls (limits and triggers) helps mitigate the risk of concentrations that could be out of line with expectations, and which may lead to unexpected losses of a scale detrimental to the stability of the relevant business line or the Group.

For example, for leveraged finance and commercial property finance portfolios, there are series of limits in place to control exposure within each business and geographic sector. To further align limits to the underlying risk characteristics, the mandate and scale limits differentiate between types of exposure. There are, for example, individual limits for property investment and property development.

The most material stress loss and mandate and scale limits are designated as A-level (Board level) and B-Level (Group level). All B-level and lower limits are set by the Risk function. Business limits are approved by the relevant business risk teams and are reportable to the relevant risk committee. Unapproved excesses of limits may result in performance management and disciplinary consequences. All limits are subject to escalation and governance requirements.

There is explicit identification of the exposures that are captured by limits and any material exclusion must be agreed. Limits are reviewed at least annually. The factors taken into consideration when setting the limit include:

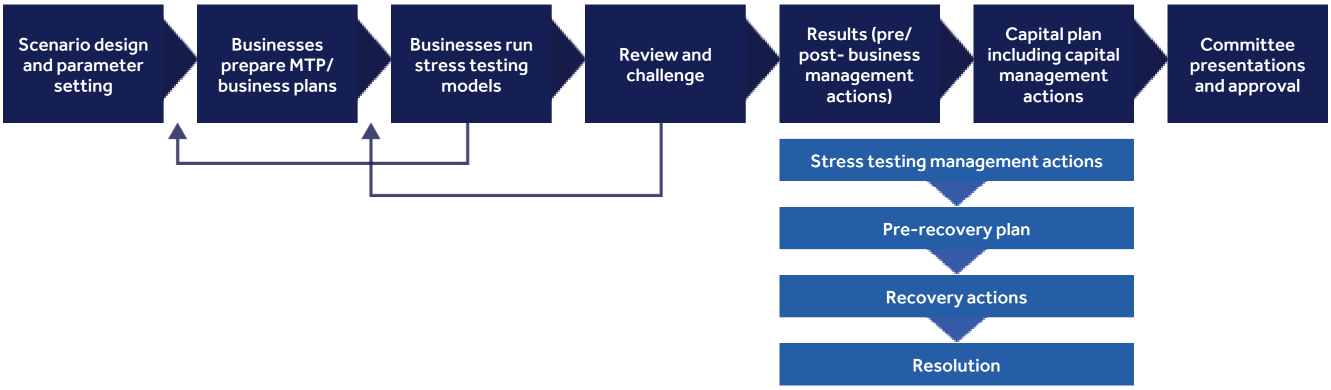
- the Group risk appetite
- current exposure/MTP forecasts
- risk return considerations
- senior risk management judgement

Internal stress testing

Group-wide stress tests are integrated within the MTP process and annual review of risk appetite. They aim to check that the Group's financial position and risk profile provide sufficient resilience to withstand the impact of severe economic stress, allowing the Group to make changes to plans as necessary. The Group- wide stress testing process is supported by a Capital Stress Testing Standard which sets out the minimum control requirements and defines clear roles and responsibilities across businesses and central functions. The results also feed into the Group's internal capital adequacy assessment process (ICAAP).

The following diagram outlines the key steps in the Group-wide stress testing process.

Stress Testing Process



The Group-wide stress testing process begins with a detailed scenario setting process, with the GRC and BRC agreeing the scenario themes to be tested. The scenarios are designed to be severe but plausible, and relevant to the business. A wide range of macroeconomic parameters are defined (such as GDP, unemployment, house prices, FX and interest rates), which allows the impact of the scenarios across the wide range of products and portfolios to be assessed across the Group.

Businesses prepare detailed MTP business plans which form the baseline for the stress test assessment. The stress test process aims to support this level of complexity, using bottom-up analysis across all of our businesses including both on- and off-balance sheet positions, and combines running statistical models with expert judgement. An overview of the stress testing approach by Principal Risk is provided in the following section. As part of their stress test assessments, businesses are also required to identify potential management actions that could be taken to mitigate the impact of stress and document these within their results.

The governance process in place includes a detailed review of stress testing methodology, assumptions, judgements, results and management actions within each business (including sign-off by business CROs and CFOs) and by central functions.

The businesses stress test results are consolidated to form a Group view which is used to assess the stress impact on the Group's capital plans. For the latter, capital management actions such as reducing dividends or redeeming certain capital instruments may be considered. The Group also maintains recovery plans which take into consideration actions to facilitate recovery from severe stress or an orderly resolution. These actions are additional to those included in Group-wide stress testing results.

The overall stress testing results are reviewed and signed off by the Board, following review by the Stress Testing Steering Committee, the GRC and the BRC.

Summary of methodologies for Group-wide stress testing by risk type is shown below.

Risk management strategy, governance and risk culture (continued)

Principal Risk	Stress testing approach
Credit risk	• Credit risk impairment: For retail portfolios businesses use statistical models to establish a relationship between IFRS 9 impairment loss levels and key macroeconomic parameters such as GDP, inflation and unemployment, incorporating credit quality migration analysis to estimate stressed levels. In addition, house price reductions (for mortgages), increased customer drawdowns (for revolving facilities) and higher interest rates impacting customer affordability lead to higher losses which also contribute to increased impairment levels. For wholesale portfolios the stress shocks on credit risk drivers (PDs, LGDs and EADs) are primarily calibrated using historical and expected relationships with key macro-economic parameters such as GDP, CPPI and oil prices. Additionally key consideration are given to high risk sectors such as leverage lending • Credit risk weighted assets: The impact of the scenarios is calculated via a combination of business volumes and using similar factors to impairment drivers above, as well as the regulatory calculation and the level of pro-cyclicality of underlying regulatory credit risk models. Additionally, upcoming regulatory changes are included in the calculation
Counterparty Credit risk	• Counterparty credit risk losses: The scenarios include market risk shocks that are applied to determine the market value under stress of contracts that give rise to Counterparty Credit Risk (CCR). Counterparty losses, including from changes to the Credit Valuation Adjustment and from defaults, are modelled based on the impact of these shocks as well as using stressed credit risk drivers (PDs and LGDs). The same approach is used to stress the market value of assets held as available for sale or at fair value in the banking book • Counterparty Credit Risk RWA: The scenario market risk shocks are applied to determine the market value of contracts under stress in line with the losses process and the credit risk MEVs (Market Economic Variables) and models are used to determine the underlying PDs and LGDs. This combination of stressed metrics are applied to the regulatory calculations alongside any regulatory changes
Market risk	• Trading book losses: Market risk factors on the balance sheet are stressed using specific market risk shocks (same as used for the CCR analysis, above). The severity of the shocks applied are dependent on the liquidity of the market under stress, e.g. illiquid less liquid positions are assumed to have a longer holding period than positions in liquid markets

Principal Risk	Stress testing approach
Income and Costs	The stress projections for Income and Cost apply projection methodologies utilising either modelled or judgement based approaches • Impact on net interest income is driven by stressed margins, which depend on the level of interest rates under stress as well as funding costs, and on stressed balance sheet volumes. This can be partly mitigated by management actions that may include repricing of variable rate products, taking into account interbank lending rates under stress • Net Trading Income (NTI) stress impacts consist of two key components. The modelled impact of various risk stresses on trading book activity will directly impact the NTI account. Additionally change in client activity is also modelled for each business area which has a corresponding impact on revenue earned on intermediation and liquid financing flows that will be reported in NTI. This can be further impacted by management actions whereby select types of client activity may be reduced to conserve capital deployed with a corresponding impact on reducing NTI • Non-interest income stress impacts are primarily driven by lower projected business volumes and hence lower income from fees and commissions • The impact on costs is mainly driven by business volumes, exchange rates, and inflation with management actions to partly offset profit reductions (due to impairment increases and decreases in income) such as headcount reductions and lower performance costs

Risk management strategy, governance and risk culture (continued)

Principal Risk	Stress testing approach
Capital and Management Actions	• The stress testing methodology for Capital Risk considers all modelled risk impacts as part of the stress scenario. The scenario includes various management actions in response to the worsening economic and commercial position. These actions consider the trigger framework that forms part of the Management Actions Standard. Scenario outputs enable an assessment of key capital and leverage flightpaths, including CET1. The results are considered against internally agreed risk appetite levels, regulatory minima and perceived market expectations. The MTP can only be agreed by the Board if it is within agreed risk appetite levels under stress
Pension Risk	• Pension risk is the risk of earnings or capital being reduced due to Defined Benefit Obligations (DBOs) increasing or the value of the assets backing these DBOs decreasing due to changes in both the level and the volatility of prices • The IAS19 position of pension funds is also stressed as part of the capital risk assessment, taking into account key economic drivers impacting future obligations (e.g. long-term inflation and interest rates) and the impact of the scenarios on the value of fund assets
Liquidity Risk	Liquidity Risk: Liquidity risk is assessed through internal liquidity stress testing (Internal Liquidity Stress Test (ILST)) and regulatory stress testing (Barclays' Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)). The Bank analyses specific liquidity risk drivers such as wholesale funding and contingent funding needs based on the below scenarios: • Barclays idiosyncratic scenario: Barclays faces a loss of market confidence while the market overall is not impacted • Market wide scenario: Market-wide stress leading to increased market volatility and loss of confidence not specific to Barclays • Combined scenario: A simultaneous Barclays idiosyncratic and Market wide liquidity stress scenario • 12-month scenario: All financial institutions are impacted by a market-wide stress. • Liquidity Coverage Ratio: Regulatory prescribed 30-day liquidity metric • Net Stable Funding Ratio: Regulatory prescribed stable funding metric
Interest Rate Risk in Banking Book (IRRBB)	Interest Rate Risk in the Banking Book (IRRBB): Risk assessment for interest rate risk on the banking books is driven by the economic risk of the underlying positions but also considers the accounting treatment: • earnings based measures are used to assess risk to net interest income from positions in customer banking books, hedging portfolios (held to mitigate those risks), and Treasury investment and funding activities • value based measures are used to assess risk to the fair value of assets held as part of investments in the liquid asset portfolio and associated risk management portfolios Risk under stress is assessed by considering: • the impact on net interest income resulting from stressed product margins and volumes, which are dependent on the level of interest rates and funding costs under stress conditions. This can be partly mitigated by management actions, which may include repricing of variable rate products taking into account interbank lending rates under stress • securities in the liquid asset portfolio are subject to several market risk stresses designed to estimate potential losses in various scenarios. This includes, but is not limited to, an annual internal stress test, regulatory stress tests as well as various ad hoc exploratory exercises
Operational risk	• Operational risk loss projections include the effect of the stressed macroeconomic scenario as well as the impact of forward-looking idiosyncratic risk events under stress. Operational risk is also part of the reverse stress testing framework through scenario assessments of such idiosyncratic events
Model risk	• The Independent Valuation Unit (IVU) reviews and approve models for use in stress tests. IVU may require compensating controls, in the form of overlays to address model deficiencies. IVU may also reject a model that is not conceptually sound, or for which the marginal impact of findings (in aggregate or on a stand-alone basis) on model output is ≥ 30%

Risk management strategy, governance and risk culture (continued)

Principal Risk	Stress testing approach
Compliance risk	▪ Redress/Remediation: Businesses review existing provisions and include additional provisions in MTP if required. ▪ Litigation: Irrespective of whether a provision had been recognised, stress projections of future losses for compliance risk matters managed by legal are estimated by exercising expert judgment on a case by case basis (material matters) or on a portfolio basis (non-material matters) in accordance with the methodology provided by regulators (PRA)
Reputation risk	▪ Reputation risk is not quantified or stressed
Legal risk	▪ Legal risk is not quantified or stressed

In 2023, the internal Group-wide stress testing exercise was run as part of the MTP process, assessing Barclays' vulnerabilities under a severe but plausible scenario. This was used for the risk appetite setting process.

The Group-wide stress testing framework also includes reverse stress testing techniques, which aim to identify the circumstances under which the Group's business model would no longer be viable, leading to a significant change in business strategy and to the identification of appropriate mitigating actions. Examples include extreme macroeconomic scenarios, or specific idiosyncratic events, covering both operational risk and capital/liquidity events. Reverse stress testing is used to help support ongoing risk management and is an input to our recovery planning process.

Business and risk type specific stress tests

Stress testing techniques at portfolio and product level are also used to support risk management. For example, portfolio management in the US Cards business employs stressed assumptions of loss rates to determine profitability hurdles for new accounts. In the UK Mortgage portfolio, affordability thresholds incorporate stressed estimates of interest rates. In the Corporate and Investment Bank, global scenario testing is used to gauge potential losses that could arise in conditions of a severe but plausible market stress. Stress testing is also conducted on positions in particular asset classes, including interest rates, commodities, equities, credit and foreign exchange.

Regulatory stress testing

In addition to running internal Barclays Group-wide stress tests, Barclays Group also runs regulatory stress tests with the Bank of England (BoE) as its main regulator:

- The BoE is running a System-Wide Exploratory Scenario (SWES) from Q4 2023 to Q2 2024 assessing the impact of a rapid decline in liquidity conditions across UK's banks and non-banking financial institutions on market-based finance. The aim of this exercise is to better understand how UK financial markets core to UK financial stability function under stress. Barclays is one of the banks participating into this exercise
- There was no BoE Annual Cyclical Scenario (ACS) in 2023 as the 2022 ACS was held in the second half and was not finalised until early 2023

Barclays Group is also subject to stress testing by non-UK regulators. This includes the European Banking Authority (EBA) for Barclays Bank Ireland (BBI):

- BBI completed the EBA regulatory stress test in H1'23 as part of European wide stress test exercise with the result published in June 2023

The US Federal Reserve (FRB) annual supervisory stress test (aka CCAR) for Barclays' Intermediate Holding Company (IHC):

- FRB stress results were released in June 2023 demonstrating a strong capital position for IHC under the supervisory severely adverse scenario

Risk management in the setting of strategy

The risk appetite and internal stress testing processes described above form the basis of the risk review of the MTP, performed annually. The MTP embeds Barclays Group's objectives into detailed business plans taking into account the likely business and macroeconomic environment. The strategy is informed by the risk review process, which includes reviewing Barclays Group's risk profile and setting of risk appetite.

- The risk review process includes a review of business plans under stress which is used to inform the MTP
- If the business' plans entail too high a level of risk, management can challenge them. This assessment is based on a comparison of the businesses' own risk appetite assessment reflected in their business plans ('bottom-up' risk appetite) with the central risk team's view ('top-down' risk appetite) based on the financial constraints set by the Board for Barclays Group
- Businesses may be asked to update their business plans until the bottom-up risk appetite is within top-down appetite. There is also a detailed review of the stressed estimates and the methodology used to translate the economic scenario to these stressed estimates, as well as the management actions included in the businesses' results to verify that these are appropriate and realistic in a stressed environment
- Interim internal capital adequacy assessments inform the capital planning process and are reviewed during the meetings. These assessments are refreshed based on year-end positions and reflected in the ICAAP

The BRC has overall responsibility for reviewing Barclays Group's risk profile and making appropriate recommendations to the Board. The Board is ultimately responsible for approving the MTP and Barclays Group's risk appetite. The risk appetite process allows senior management and the Board to understand the MTP's sensitivities by risk type, and includes a set of limits to help Barclays Group stay within its risk appetite, as described above.

Management of climate risk

This section describes the governance structure and processes specific to the management of climate-related risks.

Management of climate risk

Definition

The impact on Financial (Credit, Market, Treasury & Capital) and Operational risks arising from climate change through physical risks and risks associated with transitioning to a lower carbon economy.

- Physical risks: Result from a changing climate and can be event-driven (acute risks), including increased frequency and/or severity of extreme weather events such as cyclones, hurricanes and flooding. Physical risks can also be driven by longer term shifts in climate patterns (chronic risks) arising from sustained higher temperatures that may cause rises in sea levels, rising mean temperatures and more frequent/severe weather events
- Transition risks: The transition to a lower carbon economy is likely to involve significant and rapid policy, regulatory and legal changes, as evolving technology and markets adapt to a changing climate and associated impacts

Overview

The Group has developed a Climate Risk Framework (CRF) for Financial and Operational risks stemming from climate change. This enables Barclays to foster a systematic and consistent approach for managing Climate risk across the firm. The key principle underpinning this framework is that climate risk is recognised as a driver of other existing financial (Credit, Market, Treasury and Capital) and non-financial (Operational and Reputational) risks, and not treated as a standalone risk type. The CRF is supported by policies, standards and other relevant documents which contain control objectives that must be met.

The CRF:

- Defines climate risk
- Establishes principles for the identification, measurement, monitoring and reporting of climate risk
- Outlines the process for establishing climate risk appetite
- Summarises the impact of climate risk on other principal financial and operational risk types
- Outlines roles and responsibilities applicable to the Climate Risk Framework

The Climate Risk Policy sets objectives for the management of climate risks and establishes key principles for quantifying and reporting, including escalations required to senior stakeholders up to and including the Board Risk Committee (BRC). The Framework and Policy are applicable for Barclays' business activities, with a focus on lending, advisory, sales and trading, capital markets and investments. Climate risk may also drive non-financial risks such as Reputational risk, which continue to be managed under the respective risk frameworks.

To support the embedment of the Principal Risk, in 2023 the Group delivered the following with three overarching objectives:

1. Enhance and improve risk appetite and associated controls for Climate risk;
2. Develop a plan for refining modelling and scenario analysis capabilities;
3. Expand BlueTrack™, which now covers nine segments comprising of Energy, Power, Cement, Steel, Automotive Manufacturing, UK Housing, Commercial Real Estate, Agriculture and Aviation.

Organisation, roles and responsibilities

The Group Head of Climate Risk is the Principal Risk owner accountable for the management and oversight of the Climate risk profile. The Group Head of Climate Risk reports directly to Group CRO.

On behalf of the Board, the BRC reviews and approves the Group's approach to managing Climate risk. The Group Risk Committee (GRC) is the most senior executive body responsible for reviewing and challenging risk practices for climate.

To support the oversight of Barclays' Climate risk profile, a Climate Risk Committee (CRC) has been established as a sub-committee of the GRC. The Group Head of Climate risk is the Chair of the CRC. Any material issues are escalated by the CRC to the GRC, and the GRC subsequently escalates to the BRC as appropriate.

A Climate risk control environment has been established in alignment with the Barclays' Control Framework. A Climate Risk Control Forum (CRCF) was established in 2022 to oversee implementation and operation of the Barclays Control Framework, including reviewing risk events, policy and issues management. Climate risk assurance groups were also established and are responsible for performing climate risk specific reviews to support the embedding of the Climate Risk Framework and Policy.

Entity Heads of Climate risk have been appointed across key Barclays legal entities, namely Barclays Bank UK (BBUK) PLC, Barclays Bank (BB) PLC, Barclays Bank Ireland (BBI) PLC, and the US Intermediate Holding Company (US IHC).

Broader sustainability matters and Reputation risk associated with climate change are coordinated by the Group Sustainability and ESG Team, led by the Group Head of Sustainability.

Management of climate risk

Governance	Enterprise Risk Management Framework (ERMF)	
	Climate Risk Framework (CRF)	Reputation Risk Management Framework (RRMF)
	Board Risk Committee (BRC)	Board Sustainability Committee (BSC)
Risk	Credit, market, treasury & capital and operational risks	Sustainability matters and reputation risk associated with climate change
Ownership	Group Risk Committee (GRC)	Group Sustainability Committee (GSC)
	Group Chief Risk Officer	Head of Public Policy and Corporate Responsibility
	Group Head of Climate Risk	Group Head of Sustainability

Risk appetite

Barclays' approach to setting Climate risk appetite is aligned with its ambition to be a net zero bank by 2050 and reducing financed emissions in line with its disclosed sector targets. In accordance with the risk appetite policy and tolerance standards, Barclays has established a Climate risk appetite at the Group level, comprising of qualitative risk appetite statements and quantitative constraints. This is reviewed and revised (where applicable) annually and formally approved by the Board.

In 2023, Barclays has enhanced its approach for the quantification of climate risk appetite by implementing additional limits and controls, including around the expected financed emissions target (BlueTrack) pathways. The progress against these targets is monitored on a regular basis whilst acknowledging the challenges and external dependencies to reduce financed emissions. For further detail on Barclays' BlueTrack™ targets, please refer to the 'Climate & Sustainability' section (pages 85 to 99) of the 2023 Barclays PLC Annual Report.The Group continues to regularly review its risk appetite and enhance risk metrics including expansion of risk limits for priority sectors.

+ **Please see the Barclays PLC Annual Report pages 59 to 139 for the Climate and Sustainability Report including disclaimers,** pages 272 to 276 for Climate Risk Management and pages 284 to 290 for Climate Risk Performance

Management of credit risk and the internal ratings-based approach

This section discusses the management of credit risks and provides details of the calculation of risk weighted assets under the Internal Ratings Based approach of the Basel framework.

Pages 120 to 134 cover the aspects of the Group's risk management framework specific to credit risk, including committees and Barclays Group's reporting structure

As 57% of our regulatory capital is for credit risk, we devote pages 134 to 152 to detailing how we approach the internal ratings models, and how the framework supports risk differentiation and management

Management of credit risk and the internal ratings-based approach

Credit risk

The risk of loss to the Group from the failure of clients, customers or counterparties, including sovereigns, to fully honour their obligations to the Group, including the whole and timely payment of principal, interest, collateral and other receivables.

Overview

The credit risk that the Group faces arises from wholesale and retail loans and advances together with the counterparty credit risk arising from derivative contracts with clients; trading activities, including: debt securities, settlement balances with market counterparties, fair value through other comprehensive income (FVOCI) assets and reverse repurchase loans.

Credit risk management objectives are to:

- maintain a framework of controls to oversee credit risk
- identify, assess and measure credit risk clearly and accurately across the Group and within each separate business, from the level of individual facilities up to the total portfolio
- control and plan credit risk taking in line with external stakeholder expectations, including risk return objectives, and avoiding undesirable concentrations
- monitor credit risk and adherence to agreed controls

Organisation and structure

Wholesale and retail portfolios are managed separately to reflect the differing nature of the assets; wholesale balances tend to be larger and are managed on an individual basis, while retail balances are greater in number but lesser in value and are, therefore, managed in aggregated segments.

Roles and responsibilities

The first line of defence has primary responsibility for managing credit risk within the risk appetite and limits set by the Risk function, supported by a defined set of policies, standards and controls. In the entities, business risk committees (attended by the first line) monitor and review the credit risk profile of each business unit where the most material issues are escalated to the Retail Credit Risk Management Committee, Wholesale Credit Risk Management Committee and Group Risk Committee.

The responsibilities of the credit risk management teams in the businesses, the sanctioning team and other shared services include: sanctioning new credit agreements (principally wholesale); setting strategies for approval of transactions (principally retail); setting risk appetite; monitoring risk against limits and other parameters; setting recession readiness frameworks to protect portfolios in the event of economic stress, maintaining robust processes, data gathering, quality, storage and reporting methods for effective credit risk management; performing effective turnaround and workout scenarios for wholesale portfolios via dedicated restructuring and recoveries teams; maintaining robust collections and recovery processes/units for retail portfolios; and development of credit risk measurement models. The credit risk management teams in each legal entity are accountable to the relevant Legal Entity CRO, who reports to the Group CRO.

Organisation and structure

Barclays PLC Board Risk Committee

- Reviews and recommends Barclays Group's risk appetite for wholesale and retail credit risk to the Barclays PLC Board
- Reviews Barclays Group's risk profile for wholesale and retail credit risk on behalf of the Barclays PLC Board
- Commissions, receives and considers reports on wholesale and retail credit risk issues

Barclays Group Risk Committee

- Reviews appetite for wholesale and retail credit risk and makes recommendations on the setting of limits to the Barclays PLC Board
- Monitors the risk profile for wholesale and retail credit risk
- Reviews and monitors the control environment for wholesale and retail credit risk

Business Risk Committees

- Oversee activities and manage information relating to business portfolios, and identify actions needed to mitigate current and arising credit risks
- Review and approve business mandate and scale limits and, where relevant, provide recommendations for limits managed by wholesale and retail risk committees
- Review relevant decisions made by, and material issues and topics raised by, other forums and committees

Wholesale and Retail Credit Risk Management Committees

- Monitor the wholesale and retail credit risk profile against plan and agree required actions
- Review and approve Group mandate and scale limits and, where relevant, provide recommendations for limits managed by the Barclays PLC Board Risk Committee
- Review key wholesale and retail credit risk issues
- Review credit risk policies and framework
- Monitor risk appetite consumption – key credit portfolio (mandate and scale) limits

Management of credit risk and the internal ratings-based approach (continued)

For wholesale portfolios, credit risk approval is undertaken by experienced credit risk professionals operating within a clearly defined delegated authority framework, with only the most senior credit officers assigned the higher levels of delegated authority. The largest credit exposures, which are outside the Risk Sanctioning Unit or Risk Distribution Committee authority, require the support of a legal entity Senior Credit Officer. For exposures in excess of the legal entity Senior Credit Officer's authority, approval by Group Senior Credit Officer/Board Risk Committee is also required. The Group Credit Risk Committee, attended by legal entity Senior Credit Officers, provides a formal mechanism for the Group Senior Credit Officer to exercise the highest level of credit authority over the most material Group single name exposures.

In the wholesale portfolios, credit risk managers are organised in sanctioning teams by geography, industry and/or product.

The role of the Enterprise Risk function is to provide Group-wide direction, oversight and challenge of credit risk taking. Enterprise Risk sets the Credit Risk Control Framework, which provides the structure within which credit risk is managed, together with supporting credit risk policies and standards.

Reporting

The Group dedicates considerable resources to gaining a clear and accurate understanding of credit risk across the business and ensuring that its balance sheet correctly reflects the value of the assets in accordance with applicable accounting principles. This process can be summarised in five broad stages:

- measuring exposures and concentrations
- monitoring performance and asset quality
- monitoring for weaknesses in portfolios
- review and approve the adequacy of allowances for impairment and other credit provisions
- returning assets to a performing status or writing off assets when the whole or part of a debt is considered irrecoverable

Measuring exposures and concentrations

Loans and advances to customers provide the principal source of credit risk to the Group, although it is also exposed to other forms of credit risk through, for example, loans and advances to banks, loan commitments and debt securities. Risk management policies and processes are designed to identify and analyse risk, to set appropriate risk appetite, limits and controls, and to monitor the risks and adherence to limits by means of reliable and timely data.

One area of particular review is concentration risk. A concentration of credit risk exists when a number of counterparties or customers are engaged in similar activities or geographies, and have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic and other conditions. As a result, the Group constantly reviews its concentration in a number of areas including, for example, geography, maturity and industry.

Mandate and scale limits are used to maintain concentrations at appropriate levels, which are aligned with the businesses' stated risk appetite. Limits are typically based on the nature of the lending and the amount of the portfolio meeting certain standards of underwriting criteria. Diversification, to reduce concentration risk, is achieved through setting maximum exposure limits to individual counterparties' exposures. Material excesses are reported to the BRC.

Monitoring performance and asset quality

Trends in the quality of the Group's loan portfolio are monitored in a number of ways including tracking loan loss rate and coverage ratios.

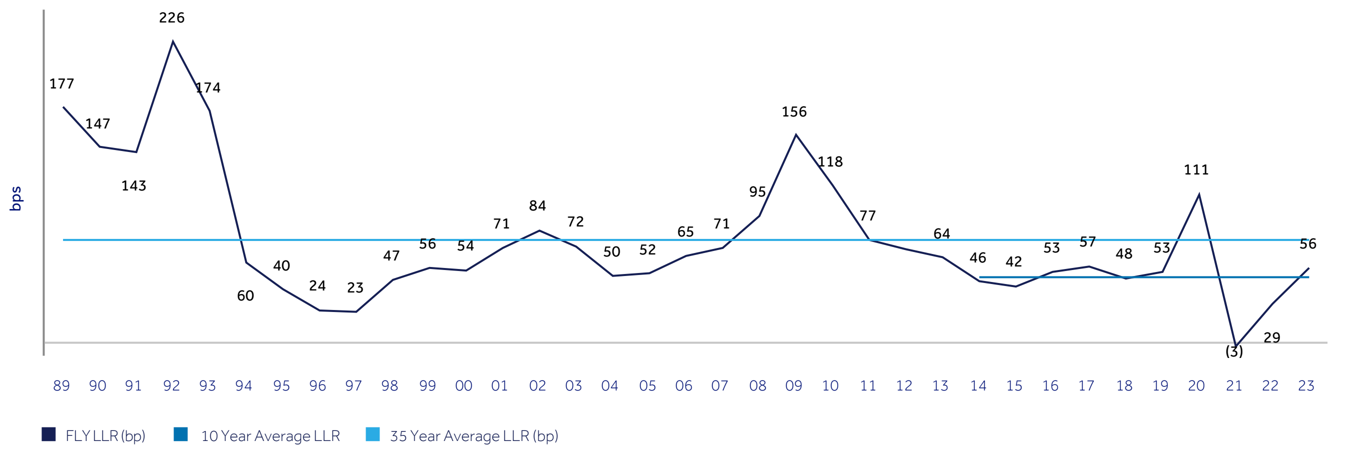
Loan loss rate

The loan loss rate (LLR) provides a way of consistently monitoring trends in loan portfolio quality at the Group, business and product levels. The LLR represents the annualised impairment charges on loans and advances to customers and banks and other credit provisions as a percentage of the total, period-end loans and advances to customers and banks, gross of impairment allowances. Details of the LLR for the current period may be found in the Credit Risk Performance section on pages 292 to 335 in the Barclays PLC Annual Report 2023.

Management of credit risk and the internal ratings-based approach (continued)

Loan loss rate (bps) – longer-term trends[a, b]

bps



Notes

a Impairment calculated under IFRS 9 from 2018 onwards.

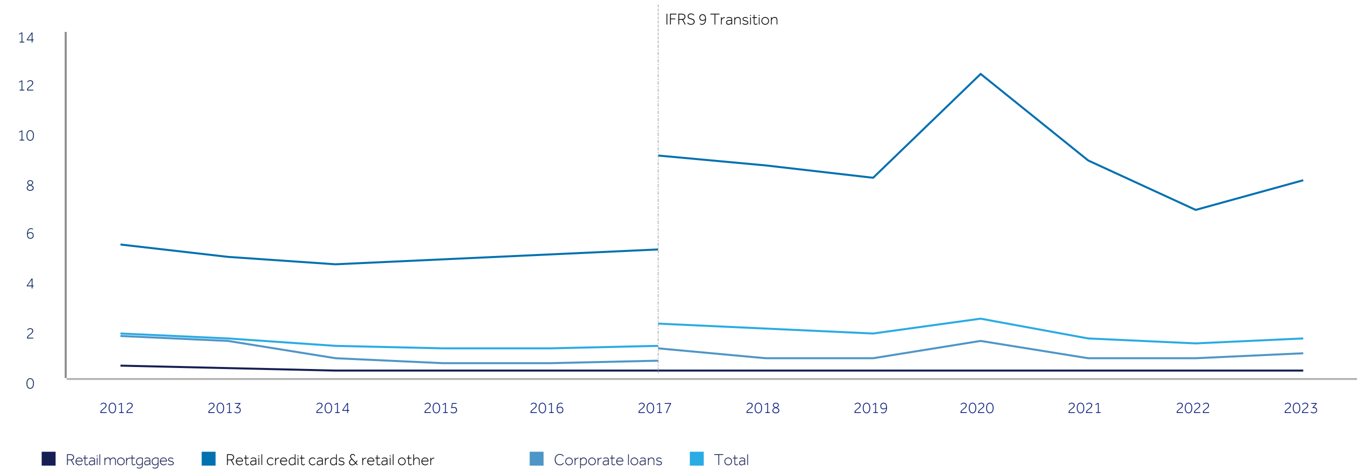
b LLR calculated using only impairment charge aligned to loans and advances at amortised cost

Coverage ratios

The impairment allowance is the aggregate of the total stock of expected credit loss (ECL).

Loans and advances total impairment coverage

%



Notes

a Reclassifications in portfolios in 2023, most notably debt securities no longer included in Corporate Loans.

Total coverage ratios will vary according to the type of product. The increase in 2017 reflects the transition to the accounting standard IFRS 9. Overall, coverage ratios would therefore be expected to remain fairly steady over a defined period of time but in principle, a number of factors may affect Barclays Group's overall coverage ratios, including:

- The mix of products: coverage ratios will tend to be lower when there is a high proportion of secured retail and corporate balances. This is due to the fact that the recovery outlook on these types of exposures is typically higher than retail unsecured products, with the result that they will have lower impairment requirements;
- The stage in the economic cycle: coverage ratios will tend to be lower in the earlier stages of deterioration in credit conditions. At this stage, retail delinquent balances will be predominantly in the early delinquency cycles and corporate names will have only recently shown signs of deterioration;
- Staging: coverage ratios will tend to be higher when there is a high proportion of balances that have met the criteria for significant increase in credit risk with associated expected credit losses (ECL) moving from a 12-month to a lifetime assessment; and
- Write-off policies: the speed with which defaulted assets are written off will affect coverage ratios. The more quickly assets are written off, the lower the ratios will be, since stock with 100% coverage will tend to roll out more quickly

Details of the coverage ratios for the current period are shown in the above chart and may be found in the analysis of loans and advances and impairment section at page 295 in the Barclays PLC Annual Report 2023.

Management of credit risk and the internal ratings-based approach (continued)

Monitoring weaknesses in portfolios

While the basic principles for monitoring weaknesses in wholesale and retail exposures are broadly similar, they reflect the differing nature of the assets. As a matter of policy, all facilities granted to corporate or other wholesale counterparties are subject to a review on, at least, an annual basis, even when they are performing satisfactorily. Retail exposures are monitored to identify customers exhibiting signs of potential financial difficulty. Identified customers are included in the High Risk Account Management (HRAM) population. Businesses have a contact strategy for their HRAM populations and they are excluded from credit expansion activities and, where appropriate, also considered for credit reduction activities or other mitigating actions.

Wholesale portfolios

Within the Wholesale portfolios, the Basel definitions of default are used as default indicators. A default is deemed to have occurred with regard to a particular obligor if one or both of the following applies:

- the obligor is considered unlikely to pay its credit obligations to Barclays in full without recourse to actions such as the realisation of collateral
- the obligor is 90 days or more past due on any material credit obligation to Barclays

  Examples of unlikeliness to pay include:
- the Group puts the credit obligation on a non-accrued status
- the Group makes a charge-off or account specific identified impairment resulting from a significant perceived decline in credit quality
- the Group sells the credit obligation at a material credit-related economic loss
- the Group triggers a petition for obligor's bankruptcy or similar order
- the Group becomes aware of the obligor having sought or having been placed in bankruptcy or similar protection where this would avoid or delay repayment of the credit obligation to the Group
- the Group becomes aware of an acceleration of an obligation by a firm
- where the obligor is a bank – revocation of authorisation
- where the obligor is a sovereign – trigger of default definition of an approved External Credit Assessment Institution (ECAI) such as a rating agency

Wholesale and retail account status chart

Wholesale account status[c]

Performing Watchlist 1-2

- Watchlist Committee flags client on the basis of evidence of financial difficulty.
- Business support assists the client to return to an in order position.

Business Support Watchlist 3

- Customer's financial difficulty requires a decision on the form of future relationship.

Default (Recovery) Watchlist 4

- Asset is considered irrecoverable and is written off.

Retail account status

Performing (Current) Arrears Status 0

- Customer misses contractual payment and moves to collections function.
- Customer pays total overdue payments and returns back to an in order position.

Delinquent (Collections) Arrears Status 1-6[a]

- Customer reaches high arrears status and is moved to the recovery function were legal action is taken.

Charge-off (Recovery) Arrears Status 6+[b]

- Asset is impaired or considered to be irrecoverable and is written off.

Performing Watchlist 1-2

Notes

a 1-4 for certain portfolios.

b 4+ for certain portfolios.

c Includes certain Business Banking facilities which are recorded as Retail for management purposes.

Management of credit risk and the internal ratings-based approach (continued)

Wholesale accounts that are deemed to contain heightened levels of risk are recorded on Watch Lists (WL) comprising four categories graded in line with the perceived severity of the risk attached to the lending, and its probability of default. Examples of heightened levels of risk may include, for example:

- a material reduction in profits
- a material reduction in the value of collateral held
- a decline in net tangible assets in circumstances which are not satisfactorily explained
- periodic waiver requests or changes to the terms of the credit agreement over an extended period of time

These lists are updated monthly and circulated to the relevant risk control points. Once an account has been placed on WL, the exposure is monitored and, where appropriate, exposure reductions are effected. While all counterparties, regardless of financial health, are subject to a full review of all facilities on at least an annual basis, more frequent interim reviews may be undertaken should circumstances dictate.

Specialist recovery functions deal with counterparties in higher levels of WL, default, collection or insolvency. Their mandate is working intensively with the counterparty to help them to return to financial health or, in the cases of insolvency, obtain the orderly and timely recovery of impaired debts in order to maximise shareholder value. Where a counterparty's financial health gives grounds for concern, it is immediately placed into the appropriate category.

Retail portfolios

Within the retail portfolios, which tend to comprise homogeneous assets, statistical techniques more readily allow potential credit weaknesses to be monitored on a portfolio basis. Retail accounts can be classified according to specified categories of arrears status (or 30-day cycle), which reflects the level of contractual payments which are overdue. An outstanding balance is deemed to be delinquent when it is one day or 'one penny' down.

Once a loan has passed through a prescribed number of cycles, it will be charged-off and enter recovery status. Charge-off refers to the point in time when collections activity changes from the collection of arrears to the recovery of the full balance. In most cases, charge-off will result in the account moving to a legal recovery function or debt sale and on unsecured assets will typically occur between 5 and 7 contractual payments in arrears. This may be accelerated or occur directly from a performing status, such as in the case of insolvency or death. For UK cards and UK unsecured loans portfolios, the point of charge-off and write-off is aligned, for accounting purposes.

Mortgage assets are not subject to charge-off but move through to litigation.

Returning assets to a performing status

Wholesale portfolios

In wholesale portfolios, an account may only be returned to a performing status when it ceases to have any actual or perceived financial stress and no longer meets any of the WL criteria, or once facilities have been fully repaid or cancelled. Unless a facility is fully repaid or cancelled, the decision in Corporate and Investment Bank to return an account to performing status may only be taken by the credit risk team.

Retail portfolios

A retail asset, pre-point of charge-off, may only be returned to a performing status in the following circumstances:

- an up-to-date (i.e. not in arrears in relation to the agreed Forbearance programme) Non-Performing Forbearance (NPF) may be reclassified as Performing Forbearance (PF) upon receipt (on-time) of all due payments (at current agreed repayment amount), over a 12-month period
- an up-to-date (i.e. not in arrears in relation to the agreed Forbearance programme) PF may be reclassified to the 'in order' book when the customer completes a minimum probation period of 24 months from the point of entering PF, even if they are no longer on a Forbearance programme. They must also meet the following criteria:
  - 12 consecutive on-time payments have been made during the probation period at the agreed repayment amount (i.e. the forbearance amount while forbearance is continuing or the contractual monthly payment (CMP) once forbearance has concluded)
  - arrears must not have been >30 days past due during the probation period
  - account is not past due at the point of exit
  - If a performing forborne contract under probation is granted additional forbearance measures or becomes more than 30 days past-due, it is classified as non-performing
  - For non UK residential mortgages, accounts may also be considered for rehabilitation post charge-off, where customer circumstances have changed. The customer must clear all unpaid capital and interest and confirm their ability to meet full payments going forward

Recovery units

Management of credit risk and the internal ratings-based approach (continued)

Recovery units are responsible for exposures where deterioration of the counterparty/ customer credit profile is severe, to the extent that timely or full recovery of exposure is considered unlikely and default has occurred or is likely in the short term. Recovery teams set and implement strategies to recover the Group's exposure through realisation of assets and collateral, in co-operation with counterparties/ customers and where this is not possible through insolvency and legal procedures.

In wholesale, for a case to be transferred to a recovery unit, it must be in default and have ceased to actively trade or be in insolvency. In retail, the timings of the charge-off points to recovery units are established based on the type of loan. In most cases, charge-off will result in the account moving to a legal recovery function or debt sale and on unsecured assets will typically occur between 5 and 7 contractual payments in arrears, unless a forbearance programme is agreed. Early points are prescribed for unsecured assets. For example, in case of customer bankruptcy or insolvency, associated accounts are charged off within 60 days of notification.

Mortgage assets are not subject to charge- off but move through to litigation.

See recovery information included in Analysis of Specific Portfolio and Asset Types section on page 329 in the Barclays PLC Annual Report 2023.

Foreclosures in process and properties in possession

Foreclosure is the process where the Group initiates legal action against a customer, with the intention of terminating the loan agreement whereby the Group may repossess the property subject to local law and recover amounts it is owned. This process can be initiated by the Group independent of the impairment treatment and it is therefore possible that the foreclosure process may be initiated while the account is still in collections (delinquent) or in recoveries (post charge-off) where the customer has not agreed a satisfactory repayment schedule with the Group.

Properties in possession include properties held as 'loans and advances to customers' and properties held as 'other real estate owned'.

Held as 'loans and advances to customers' (UK and Italy) refers to the properties where the customer continues to retain legal title but where the Group has enforced the possession order as part of the foreclosure process to allow for the disposal of the asset, or the court has ordered the auction of the property.

Writing off assets

Write-off refers to the point where it is determined that the asset is irrecoverable, it is no longer considered economically viable to try and recover the asset, it is deemed immaterial, or full and final settlement is reached and a shortfall remains. In the event of write-off, the customer balance is removed from the balance sheet and the impairment reserve held against the asset is released.

The timing and extent of write-offs may involve some element of subjective judgement. Nevertheless, a write-off will often be prompted by a specific event, such as the inception of insolvency proceedings or other formal recovery action, which makes it possible to establish that some or the entire advance is beyond realistic prospect of recovery. The position of impaired loans is also reviewed at least quarterly to make sure that irrecoverable advances are being written-off in a prompt and orderly manner and in compliance with any local regulations.

For retail portfolios, the timings of the write-off points are established based on the type of loan. For UK cards and UK loan portfolios, the point of charge-off and write-off are aligned.

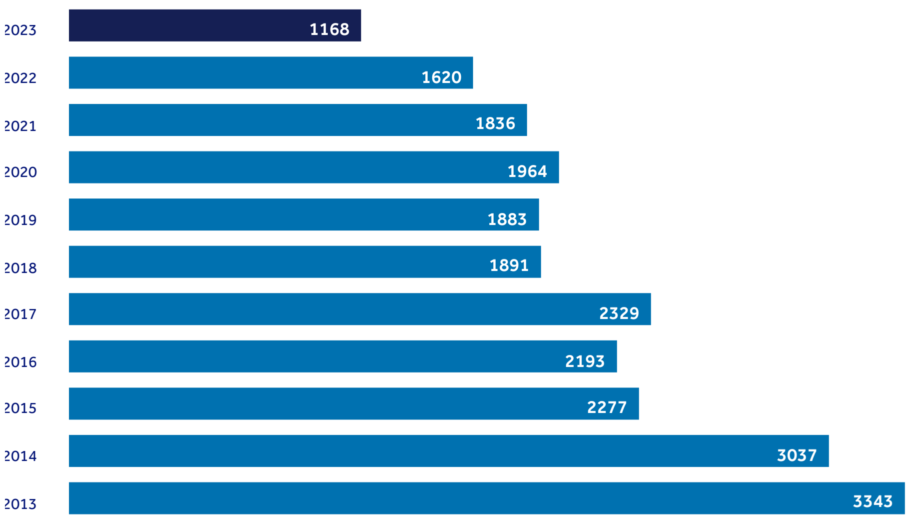
For other unsecured portfolios, assets are written-off based on contractual payment criteria or accelerated criteria. Assets in the recovery book will be written-off if the required qualifying repayments are not made within a rolling twelve-month period. In certain circumstances, accounts will be eligible for accelerated write-off (e.g. deceased, insolvency, inappropriate to pursue (medical, vulnerable, small balance) or settlement is accepted in lieu of the full balance). For secured loans, any shortfall after the receipt of the proceeds from the disposal of the collateral is written-off within three months of that date if a repayment schedule has not been agreed with the borrower. Such assets are only written-off once all the necessary procedures have been completed and the amount of the loss has been determined.

Subsequent recoveries of amounts previously written-off are written back and hence decrease the amount of the reported loan impairment charge in the income statement.

In 2023, total write-offs of impaired financial assets decreased slightly to £1.2bn (December 2022: £1.6bn).

Management of credit risk and the internal ratings-based approach (continued)

Total Write-off of impaired financial assets £m



Assessment of Impairment Under IFRS 9

Under the IFRS 9 accounting standard, businesses are required to assess and recognise ECL on financial assets from the point of origination or purchase, and to update said assessment at each reporting date, reflecting changes in the credit risk of the financial asset.

ECL represents a present value measure of the credit losses expected to result from default events that may occur during a specified period of time. ECLs must reflect the present value of cash shortfalls, i.e. the difference between cash flows due under the contract and the cash flows that the business now expects to receive. Given ECLs take into account both the amount and the timing of payments, a credit loss may result if a contractual payment is missed or received late, even if the debt is ultimately paid in full. ECL assessments must reflect an unbiased and probability weighted assessment of a range of possible outcomes, including reasonable and supportable information about future economic conditions.

Exposures must be assessed and assigned to one of the following populations at each reporting point.

- **Stage 1: Performing risk assets**
  In scope items classified as Stage 1 exposure for IFRS 9 purposes are those assets performing in line with expectations in place at the point of origination/acquisition. This includes new originations or purchased assets (from the point of initial origination), but excludes exposures deemed credit impaired at point of origination.

  Businesses must recognise an impairment allowance equal to 12 months ECL. This allowance must be raised at point of initial reporting of an asset and the assessment updated at each subsequent reporting point.

- **Stage 2: Significant Increase in Credit Risk (SICR) assets**
  Assets classified as Stage 2 exposures for IFRS 9 purposes are those where credit risk has significantly increased compared with expectations at point of origination/ acquisition, but which are not yet considered 'Credit Impaired'.

  In order to maintain that individual exposures or groups of assets are correctly classified as Stage 2 assets, businesses must undertake regular assessments to identify whether a significant increase in credit risk has occurred since initial recognition. This must take the form of the following:

  – Quantitative Test
    Where the residual annualised weighted average lifetime PD for an individual exposure at the latest reporting date shows a material deterioration compared with that at the origination/acquisition point, then the assets must be classified under Stage 2 as having significantly increased credit risk.

The assessment of materiality, i.e. at what point the PD increase is deemed 'significant', is based upon analysis of the portfolios' risk profile against a common set of defined principles and key performance metrics.

  – Qualitative Test
    For personal banking assets managed under retail portfolios, accounts meeting the portfolios 'high risk' criteria (i.e. within the last 12 months reclassified from forbearance, rehabilitated from charge-off or subject to either re-age or collections arrangement; and external behavioural metric indicate an increased probability of financial difficulty, for example excessive or increasing indebtedness and/or missed or late payments recorded at credit bureau), must be classified under Stage 2 as having significantly increased credit risk. For Wholesale portfolios and Business Banking assets managed under Retail portfolios where accounts are managed under the Watch List framework, then customers on Watch List 2 or 3, not breaching the quantitative test must be classified under Stage 2 as having SICR. Obligors on Watch List 1 may be classified as Stage 1 for a maximum period of 6 months. In exceptional circumstances for an obligor on Watch List 2 where it can be proven that a specific exposure is not deteriorated e.g. it is newly originated and therefore cannot have deteriorated, Stage 1 ECL may be applied.

  – Backstop Criteria
    For retail portfolios, adverse changes in payment status must be considered within the assessment, and accounts 1 or more contractual payment in arrears at reporting date classified under Stage 2, except where:

Management of credit risk and the internal ratings-based approach (continued)

a the missed payment is a result of a bank error or technical issue

b the arrears can be analytically proven not to represent deterioration from risk performance expectations at point of origination/ acquisition, e.g. where there is a very small period between cycle point and reporting date. Such exceptions must be approved by the Group Credit Risk Director (GCRD) or nominated delegate. Exposures at 30 days or more past contractual payment due date at the reporting date must be classified as Stage 2 assets without exception.

For wholesale portfolios, adverse changes in payment status must be considered within the assessment, and accounts with contractual payment 30 days or more in arrears at reporting date are included within the entry criteria for Stage 2, except where the missed payment is a result of a proven bank error or administrative issue. Where 30 days is used. it must be proven that this is a backstop, not a lead driver of exposure moving to Stage 2.

Where the assessment of SICR is undertaken on a collective basis, assets must be grouped on the basis of similar risk characteristics, taking into account asset type, industry, geographical location, collateral type, past-due status and other relevant factors.

Businesses must raise an impairment allowance equivalent to the latest assessment of lifetime ECL. This increased allowance must be recognised at the first reporting point following entry to Stage 2 and the assessment updated at each subsequent reporting date.

The assessment of lifetime ECLs for Stage 2 (and Stage 3) assets must consider the maximum contractual period over which the business is exposed to credit risk, including the impact of permitted extensions and pre- payments, i.e. those available at the option of the borrower to which the business must agree.

For loan commitments, the lifetime assessment period is normally the maximum contractual life, i.e. the period from the point the loan commitment is established to closure/full repayment of the exposure. However, where customer use of contractually available pre-payments and/or extension has a material impact on the expected life of the asset, then use of behavioural life may be justified.

For revolving credit facilities, the lifetime assessment period may extend beyond the contractual life to include the period over which the business is expected to be exposed to credit risk, based on historical experience i.e. an assessment of the average time to default, closure or withdrawal of the facility.

Assets may be removed from Stage 2 and re-assigned to Stage 1 once there is objective evidence that the criteria used to indicate a significant increase in credit risk are no longer met.

- **Stage 3: Credit impaired risk assets**

  Assets classified as Stage 3 exposures for IFRS 9 purposes are those where credit risk has increased to a point where they are now considered 'Credit Impaired'. For retail portfolios, this incorporates all defaulted accounts as defined under the Regulatory Definition of Default. For wholesale portfolios cases of forbearance not captured by Stage 3 (i.e. those not meeting the regulatory definition of default - EBA classification of non-performing) must be classified as Stage 2 until such time as the relevant forbearance probation period has been completed.

Businesses must raise an impairment allowance equivalent to the latest assessment of lifetime ECL, i.e. on the same basis as for Stage 2 assets.

For single name wholesale assets, a threshold approach is taken with Stage 3 impairment calculated individually. A discounted cash flow is completed establishing a base estimated impairment allowance, derived from the difference between asset carrying values and the recoverable amount.

Where the base allowance is greater than £10m, a bespoke assessment is performed reflecting individual work out strategies. The assessment is clearly and specifically articulated including how general economic scenarios and downside analyses have been applied.

Interest and fee income on Stage 3 assets is recognised based on the net amortised value, i.e. the gross carrying amount adjusted for the loss allowance in line with IFRS principles.

For exposures that are considered credit- impaired on purchase or origination, lifetime ECLs must be taken into account within the estimated cash flows at point of initial recognition, and the asset classified as Stage 3.

In subsequent reporting periods, businesses must recognise cumulative changes in lifetime ECLs since initial recognition as a loss allowance, i.e. the amount of change in lifetime ECLs is treated as an impairment gain or loss. Assets may only exit Stage 3 and be reclassified into Stage 1 or Stage 2 once the original default trigger event no longer applies.

To fully embed this standard into businesses, management requires frequent periodic reviews of ECL performance across the Group both in isolation and, more importantly, in comparison to the underlying performance of portfolios and product types.

Review and challenge is carried out through a hierarchy of committees confirming both the adequacy of provisions under the ECL requirements and that all policies, standards and processes have been adhered to (see below) and that appropriate controls are evidenced.

Governance and oversight of impairment under IFRS 9

Barclays Group's organisational structure and internal governance processes oversee the estimation of ECL across several areas, including: i) setting requirements in policy, including key assumptions and the application of key judgements; ii) the design and execution of models; and iii) review of ECL results.

i) Impairment policy requirements are set and reviewed regularly, at a minimum annually, to maintain adherence to accounting standards. Key judgements inherent in policy, including the estimated life of revolving credit facilities and the quantitative criteria for assessing the SICR, are separately supported by analytical study. In particular, the quantitative thresholds used for assessing SICR are subject to a number of internal validation criteria, particularly in retail portfolios where thresholds decrease as the origination PD of each facility increases. Key policy requirements are also typically aligned to Barclays Group's credit risk management strategy and practices, for example, wholesale customers that are risk managed on an individual basis are assessed for ECL on an individual basis upon entering Stage 3; furthermore, key internal risk management indicators of high risk are used to set SICR policy, for example, retail customers identified as High Risk Account Management are automatically deemed to have met the SICR criteria

Management of credit risk and the internal ratings-based approach (continued)

ii) ECL is estimated in line with internal policy requirements using models which are validated by a qualified independent party to the model development area, the Independent Validation Unit (IVU), before first use and at a minimum annually thereafter. Each model is designated an owner who is responsible for:

- model maintenance: monitoring of model performance including backtesting by comparing predicted ECL versus flow into Stage 3 and coverage ratios; proposing material changes for independent IVU approval; and recalibrating model parameters on more timely data
- proposing post-model adjustments (PMA) to address model weaknesses or to account for situations where known or expected risk factors and information have not been considered in the modelling process. All PMAs relating to model deficiencies, regardless of value are approved by IVU for a set time period. PMAs representing Expert Judgement are validated by Risk, as the second line of defence and approved for a set time period. The most material PMAs are also approved by the Barclays Group's Chief Risk Officer

Models must also assess ECL across a range of future economic conditions. These economic scenarios are generated via an independent model and ultimately set by the Senior Scenario Review Committee. Economic scenarios are regenerated at a minimum twice annually but more frequently if deemed appropriate, and also to align with Barclays Group's medium term planning exercise. Each model used in the estimation of ECL, including key inputs, are governed by a series of internal controls, which include the validation of completeness and accuracy of data in golden source systems, documented data transformations and documented lineage of data transfers between systems.

iii) The Barclays Group's Impairment Committee, formed of members from both Finance and Risk and attended by both the Barclays Group's Finance Director and the Barclays Group's Chief Risk Officer, is responsible for overseeing impairment policy and practice across Barclays Group and will approve impairment results. Reported results and key messages are communicated to the Barclays Group's Board Audit Committee, which has an oversight role and provides challenge of key assumptions, including the basis of the scenarios adopted. Impairment results are then factored into management decision making including but not limited to, business planning, risk appetite setting and portfolio management

Management of credit risk and the internal ratings-based approach (continued)

Forbearance and other concession programmes

Forbearance programmes

Forbearance takes place when a concession is made on the contractual terms of a facility in response to an obligor's financial difficulties. Barclays Group offers forbearance programmes to assist customers and clients in financial difficulty through agreements that may include accepting less than contractual amounts due where financial distress would otherwise prevent satisfactory repayment within the original terms and conditions of the contract. These agreements may be initiated by the customer, Barclays Group or a third party.

Forbearance programmes for wholesale portfolios

The majority of wholesale client relationships are individually managed, with lending decisions made with reference to specific circumstances and on bespoke terms.

Forbearance measures consist of concessions made towards a debtor that is experiencing or about to experience difficulties in meeting their financial commitments.

A concession is a sanctioned action, outside of market terms that is beneficial to the debtor. The concession arises solely due to the financial distress of the debtor and the terms are more favourable than those which would be offered to a new or existing obligor with a similar risk profile. Concessions are represented by:

- a change or alteration to the previous terms and conditions of a contract
- a total or partial refinancing of a troubled debt contract

The following are some examples of concessions which would be deemed forbearance (where granted to debtors in financial difficulties and outside of market terms):

- a restructuring of the contractual terms of a credit facility (such as a reduction in the interest rate)
- an extension to the maturity date
- change to the collateral structure (typically resulting in a net reduction in collateral)
- favourable adjustment to covenants where repayment profile changes, or non- enforcement of material covenant breach
- repayment in some form other than cash (e.g. equity)
- capitalisation of accrued interest
- any other concession made which is designed to alleviate actual or apparent financial stress e.g. a capital repayment holiday

Where a concession is granted that is not a result of financial difficulty and/or is within Barclays Group's current market terms, the concession would not amount to forbearance. For example, a commercially balanced restructure within the Barclays Group's current terms which involves the granting of concessions and receiving risk mitigation/ structural enhancement of benefit to Barclays Group would not be indicative of forbearance.

Forbearance is not deemed to have occurred in the following situations:

- there is a pending maturity event anticipated at the onset of lending i.e. the loan was never structured to amortise to zero
- a maturity extension or a temporary covenant waiver (e.g. short term standstill) is granted to support a period of negotiation, subject to Barclays Group being satisfied that:
  - the debtor is actively pursuing refinancing or the sale of an asset enabling full repayment at expiry of the extended term
  - no loss is anticipated
  - payments of interest and capital continues as originally scheduled
  - there is a high probability of a successful outcome within a 'reasonable' time scale (6 months for bilateral facilities, 9 months for multi-lender)
- immaterial amendments to lending terms are agreed, including changes to non- financial internal risk triggers that are only used for internal monitoring purposes

Forbearance is considered evidence of a Significant Increase in Credit Risk and all forborne debtors are impaired as IFRS 9 Stage 2 (Lifetime Expected Credit Loss), regardless of the Watch List category, as a minimum for the lifetime of the forbearance. Those forbearance cases in regulatory default will attract Stage 3 impairment treatment.

Debtors granted forbearance are classified on Watch List for the duration of the forbearance. Counterparties placed on Watch List status are subject to increased levels of credit risk oversight.

Forborne debtors are classified for reporting as either Performing or Non-Performing.

Non-Performing debtors are defined as:

- more than 90 days past due at the point concession was granted
- assessed as unlikely to pay credit obligations in full without realisation of collateral, regardless of the existence of any past due amount or of the number of days past due
- credit impaired
- performing forborne debtors granted additional forbearance measures or becoming more than 30 days past-due on a facility obligation

Performing debtors are classified as debtors that were less than 90 days past due at the point the concession was granted, are less than 30 days past under their revised terms and are without risk of non-payment.

Management of credit risk and the internal ratings-based approach (continued)

Non-performing status remains in force for a minimum 12 months from the date of classification before the debtor can be considered for performing status. Performing debtors remain forborne for a minimum 24 months before forborne status may be reviewed. The minimum time spent in forbearance for a case that is Non-Performing at the point forbearance is granted is therefore 36 months.

A control framework exists along with regular sampling so that policies for Watch List and impairment are enforced as defined and all assets have suitable levels of impairment applied. Portfolios are subject to independent assessment.

Aggregate data for Wholesale forbearance cases is reviewed by the Wholesale Credit Risk Management Committee.

Forbearance programmes for retail portfolios

Retail forbearance is available to customers experiencing financial difficulties. Forbearance solutions take a number of forms depending on individual customer circumstances. It is imperative that the solution agreed is both appropriate to that customer and sustainable, with a clear demonstration from the customer of both willingness and ability to repay. Affordability assessments are undertaken before any permanent programme of forbearance is granted, to understand the customer duration of financial difficulty and agree an affordable payment amount. Short-term solutions focus on temporary reductions to contractual payments and may suppress interest, or change from capital and interest payments to interest only. Long term solutions focus on full amortisation of the balance, and may also include an interest rate concession.

When an account is placed into a programme of forbearance, the asset will be classified as such until a defined cure period has been successfully completed, incorporating a successful track record of payment in line with the revised terms, upon which it will be returned to the up-to-date book. When Barclays Group agrees a forbearance programme with a customer, impairment allowances recognise the impact on cash flows of the agreement to receive less than the original contractual payments. The Retail Impairment Policy prescribes the methodology for the impairment of forbearance assets, in line with the IFRS 9 methodology adopted in January 2018. Forborne exposures are classified as Stage 3 (credit impaired) assets under IFRS 9, until such time as the prescribed stage 3 cure criteria have been met, resulting in higher impairment than for fully performing assets, reflecting the additional credit risk attached to loans subject to forbearance.

When customers exit forbearance, the accounts are ring-fenced as high risk within the up-to- date book for a period of at least twelve months.

Barclays has continued to assist customers in financial difficulty through the use of forbearance programmes. However, the extent of forbearance offered by Barclays Group to customers and clients remains small in comparison to the overall size of the loan book.

The level of forbearance extended to customers in other Retail portfolios is not material and, typically, does not currently play a significant part in the way customer relationships are managed. However, additional portfolios will be added to this disclosure should the forbearance in respect of such portfolios become material.

A retail loan is not considered to be renegotiated where the amendment is at the request of the customer, there is no evidence of actual or imminent financial difficulty and the amendment meets with all underwriting criteria. In this case it would be treated as a new loan. In the normal course of business, customers who are not in financial difficulties frequently apply for new loan terms, for example to take advantage of a lower interest rate or to secure a further advance on a mortgage product. Where these applications meet our underwriting criteria and the loan is made at market interest rates, the loan is not classified as being in forbearance. Only in circumstances where a customer has requested a term extension, interest rate reduction or further advance and there is evidence of financial difficulty is the loan classified as forbearance and included in our disclosures on forbearance on page 332 to 335 of the Barclays PLC Annual Report 2023.

Please see the credit risk performance section on pages 332 to 335 of the Barclays PLC Annual Report 2023 for details of principal retail assets currently in forbearance.

Other programmes

Retail re-aging activity

Re-aging refers to the placing of an account into an up-to-date position without the requisite repayment of arrears. The re-age policy applies to revolving products that have a minimum payment requirement only. No reduction is made to the minimum due payment amounts which are calculated, as a percentage of balance, with any unpaid principal included in the calculation of the following month's minimum due payment.

The changes in timing of cash flows following re-aging do not result in any additional cost to Barclays Group. The following are the conditions required to be met before a re-age may occur:

- The account must not have been previously charged-off or written -off
- the borrower cannot be bankrupt, subject to an Individual Voluntary Arrangement (a UK contractual arrangement with creditors for individuals wishing to avoid bankruptcy), or deceased
- the borrower must show a renewed willingness and ability to repay the debt. This will be achieved by the borrower making at least three consecutive contractual monthly payments or the equivalent cumulative amount. Contractual monthly payment is defined as the contractual minimum due. Funds may not be advanced for any part of this and the account cannot exceed cycle 3 arrears at the time of the final qualifying payment. No account should be re-aged more than twice within any twelve-month period, or more than four times in a five-year period

Re-aged assets are included in portfolios High Risk population, and are classified as Stage 2 assets (i.e. as having significantly higher credit risk) for IFRS 9 impairment purposes. This results in an appropriately higher impairment allowance being recognised on the assets.

Retail small arrears capitalisation

All small arrears capitalisations are now considered a form of Forbearance, based on the European Banking Authority's requirements for Supervisory Reporting on Forbearance and Non-Performing exposures.

Management of credit risk and the internal ratings-based approach (continued)

Refinancing risk

This is the risk that the borrower or group of correlated borrowers may be unable to repay bullet-repayment loans at expiry, and will therefore need refinancing.

From a large corporates perspective, refinancing risk will typically be associated with loans that have an element of bullet repayment incorporated into the repayment profile.

Refinancing risk is taken into account on a case by case basis as part of the credit review and approval process for each individual loan. The review will consider factors such as the strength of the business model and sustainability of the cash flows; and for bridge loans, the certainty of the sources of repayment and any associated market risk.

Commercial real estate loans will frequently incorporate a bullet repayment element at maturity. Where this is the case, deals are sized and structured to enable the Group to term out the loan if the client were unable to refinance the loan at expiry. Credit review will incorporate an examination of various factors that are central to this consideration, such as tenant quality, tenancy agreement (including break clauses), property quality and interest rate sensitivity. Loans to small and medium enterprises (SMEs) will typically be either revolving credit lines to cover working capital needs or amortising exposures, with periodic refinancing to give the opportunity to review structure, pricing, etc.

Environmental risk

Barclays Group's approach to environmental credit risk management addresses risk under two categories, namely direct risk and indirect risk, which are covered below.

Direct risk can arise when Barclays Group takes commercial land as collateral. In many jurisdictions, enforcement of a commercial mortgage by Barclays Group, leading to possession, potentially renders Barclays Group liable for the costs of remediating a site under Direct Lender Liability, if deemed by the regulator to be contaminated. In the UK, Barclays Group's approach requires commercial land, if being pledged as collateral, to be subject to a screening mechanism. Where required, a further assessment of the commercial history of a piece of land or an asset and its potential for environmental contamination helps reflect any potential environmental degradation in the value ascribed to that security. It also identifies potential liabilities which may be incurred by Barclays Group, if realisation of the security were to become likely.

Indirect risk can arise when environmental issues may impact the creditworthiness of the borrower. For instance, incremental costs may be incurred in upgrading a business' operations to meet emerging environmental regulations or tightening standards, including those associated with managing the impacts of climate change. In other circumstances, failure to meet those standards may lead to fines. Environmental impacts on businesses may also include shifts in the market demand for goods or services generated by our customers, or changing supply chain pressures.

More information on our approach to managing risks associated with climate change can be found on page 272 to 276 of the Barclays PLC Annual Report 2023.

Management of credit risk mitigation techniques and counterparty credit risk

Counterparty credit risk arises from derivatives and similar contracts. This section details the specific aspects of the risk framework related to this type of credit risk. As credit risk mitigation is one of the principal uses of derivative contracts by banks, this is also discussed in this section.

- On page 133 a high level description of the types of counterparty credit exposures incurred in the course of Barclays' activity supplements the analytical tables in pages 85 to 91
- Mitigation techniques specific to counterparty credit risk are also discussed
- A more general discussion of credit risk mitigation (covering traditional credit risks) is included below

Credit risk mitigation

The Group employs a range of techniques and strategies to actively mitigate credit risks. These techniques and strategies can broadly be divided into three types:

- netting and set-off
- collateral
- risk transfer

The Group has detailed policies in place to maintain that credit risk mitigation is appropriately recognised and recorded. The recognition of credit risk mitigation is subject to a number of considerations including legal certainty of enforceability and effectiveness, that the valuation and liquidity of the collateral is adequately monitored, and that the value of the collateral is not materially correlated with the credit quality of the counterparty.

All three types of credit risk mitigation may be used by different areas of the Group for exposures with a full range of counterparties. For instance, businesses may take property, cash or other physical assets as collateral for exposures to retailers, property companies or other client types.

Netting and set-off

In most jurisdictions and within legal entities in which the Group operates, credit risk exposures can be reduced by applying netting and set-off. In exposure terms, this credit risk mitigation technique has the largest overall impact on net exposure to derivative transactions, compared with other risk mitigation techniques.

For derivative transactions, the Group's normal practice is, on a legal entity basis, to enter into standard master agreements with counterparties (e.g. ISDAs). These master agreements typically allow for netting of credit risk exposure to a counterparty resulting from derivative transactions against the obligations to the counterparty in the event of default, and so produce a lower net credit exposure.

Management of credit risk and the internal ratings-based approach (continued)

These agreements may also reduce settlement exposure (e.g. for foreign exchange transactions) by allowing payments on the same day in the same currency to be set-off against one another.

Under IFRS, netting is permitted only if both of the following criteria are satisfied:

- the entity currently has a legally enforceable right to set off the recognised amounts; and
- the entity intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously

Under US GAAP, netting is also permitted, regardless of a currently legally enforceable right of set-off and/or the intention to settle on a net basis, where there is a counterparty master agreement that would be enforceable in the event of bankruptcy.

Collateral

The Group has the ability to call on collateral in the event of default of the counterparty, comprising any or a combination of the following:

- home loans: a fixed charge over residential property in the form of houses, flats and other dwellings. The value of collateral is impacted by property market conditions which drive demand and therefore value of the property. Other regulatory interventions on ability to repossess, longer period to repossession and granting of forbearance may also affect the collateral value
- wholesale lending: a fixed charge over commercial property and other physical assets, in various forms
- other retail lending: includes second lien charges over residential property, which are subordinate to first charges held either by the Group or another party; and finance lease receivables, for which typically the Group retains legal title to the leased asset and has the right to repossess the asset on the default of the borrower
- derivatives: the Group also often seeks to enter into a margin agreement (e.g. Credit Support Annex) with counterparties with which the Group has master netting agreements in place. These annexes to master agreements provide a mechanism for further reducing credit risk, whereby collateral (margin) is posted on a regular basis (typically daily) to collateralise the mark to market exposure of a derivative portfolio measured on a net basis. The Group may additionally negotiate the receipt of an independent amount further mitigating risk by collateralising potential mark to market exposure moves
- reverse repurchase agreements: collateral typically comprises highly liquid securities which have been legally transferred to the Group subject to an agreement to return them for a fixed price
- financial guarantees and similar off- balance sheet commitments: cash collateral may be held against these arrangements

Risk transfer

A range of instruments including guarantees, credit insurance, credit derivatives and securitisation can be used to transfer credit risk from one counterparty to another. These mitigate credit risk in three main ways:

- if the risk is transferred to a counterparty which is more creditworthy than the original counterparty, then overall credit risk is reduced
- where recourse to the first counterparty remains, both counterparties must default before a loss materialises. This is less likely than the default of either counterparty individually so credit risk is reduced
- first loss exposures across pools of credit risk can be hedged via synthetic securitisation structures, typically via CLN issuance. As these are fully funded upfront they provide for a direct reduction in credit risk exposure on referenced pools

Risk transfer can also be used to reduce risk concentrations within portfolios lowering the impact of stress events.

Risk transfer transactions are undertaken with consideration to whether the collateral provider is correlated with the exposure, the credit worthiness of the collateral provider and legal certainty of enforceability and effectiveness. Where credit risk mitigation is deemed to transfer credit risk, this exposure is appropriately recorded against the credit risk mitigation provider.

In exposure terms, risk transfer is used most extensively as a credit risk mitigation technique for wholesale loans and derivative financial instruments.

Off-balance sheet risk mitigation

The Group applies fundamentally the same risk management policies for off-balance sheet risks as it does for its on-balance sheet risks. In the case of commitments to lend, counterparties/ customers will be subject to the same credit management policies as for loans and advances. Collateral may be sought depending on the strength of the counterparty and the nature of the transaction.

Recognition of credit risk mitigation in capital calculations

Credit risk mitigation is used to reduce credit risk associated with an exposure, which may reduce potential losses in the event of obligor default or other specified credit events.

Credit risk mitigation that meets certain regulatory criteria may be used to improve risk parameters and reduce RWA consumption against a given obligor. Collateral that meets these regulatory conditions is referred to as eligible collateral. Eligibility criteria are specified in articles 195 to 204 of the CRR.

The Group's policies and standards set out criteria for the recognition of collateral as eligible credit risk mitigation and are designed to be fully consistent with all applicable local regulations and regulatory permissions.

Where regulatory capital is calculated under AIRB regulations, the benefit of collateral is generally taken by adjusting LGDs. For standardised portfolios, the benefit of collateral is taken using the financial collateral comprehensive method: supervisory volatility adjustments approach.

For instruments that are deemed to transfer credit risk, in AIRB portfolios the protection is generally recognised by using the PD and LGD of the protection provider.

For exposures treated under the standardised approach, the impact of eligible credit risk mitigation is primarily recognised by reducing the EAD associated with the exposure that benefits from the mitigation.

Management of credit risk and the internal ratings-based approach (continued)

Managing concentrations within credit risk mitigation

Credit risk mitigation taken by the Group to reduce credit risk may result in credit or market risk concentrations.

Guarantees that are treated as eligible credit risk mitigation are marked as an exposure against the guarantor and aggregated with other credit exposure to the guarantor. Limit monitoring at the counterparty level is then used for monitoring of concentrations in line with the Group policy.

Commercial real estate lending is another potential source of concentration risk arising from the use of credit risk mitigation. The portfolio is regularly reviewed to assess whether a concentration risk in a particular region, industry or property exists, and portfolio limits are in place to control the level of exposure to commercial, residential, investment and development activity.

Counterparty credit risk

Counterparty credit exposures for derivative and securities financing transactions

The Group enters into financial instruments that are traded or cleared on an exchange, including interest rate swaps, futures and options on futures. Holders of exchange traded instruments provide daily margins with cash or other securities at the exchange, to which the holders look for ultimate settlement.

The Group also enters into financial instruments that are traded over the counter, rather than on a recognised exchange. These instruments range from standardised transactions in derivative markets, to trades where the specific terms are tailored to the requirements of the Group's counterparties. In most cases, industry standard documentation is used, most commonly in the form of a master agreement, with individual transaction confirmations. The existence of a signed master agreement is intended to give the Group protection in situations where the Group's counterparty is in default.

Counterparty credit exposure arises from the risk that parties are unable to meet their payment obligations under certain financial contracts such as derivatives, securities financing transactions (SFTs) (e.g. repurchase agreements), or long settlement transactions.

A Monte Carlo simulation engine is used to estimate the Potential Future Exposure (PFE) to derivative and securities financing counterparties. The exposure simulation model simulates future market states and the MTM of the derivative transactions under those states. Simulated exposures taking into account the effect of credit mitigants such as netting, collateral and mandatory break clauses can then be generated.

Credit limits for CCR are assessed and allocated using the PFE measure. A number of factors are taken into account when setting credit limits for individual counterparties, including but not limited to the credit quality and nature of the counterparty, the rationale for the trading activity entered into and any wrong-way risk considerations.

The expected exposures generated by this engine are also used as an input into both internal and regulatory capital calculations covering CCR.

'Wrong-way risk' in a derivative or SFT exposure arises when there is significant correlation between the underlying asset and the counterparty, which in the event of default would lead to a significant MTM loss to the counterparty. Specific wrong-way risk trades, which are self-referencing or reference to other entities within the same counterparty group, require approval by a senior credit officer. The exposure to the counterparty will reflect the additional risk generated by these transactions. (the exposure will be consistent with jump-to-default of the reference asset assuming zero recovery).

Derivative CCR (credit value adjustments)

As the Group participates in derivative transactions it is exposed to CCR, which is the risk that a counterparty will fail to make the future payments agreed in the derivative contract. This is considered as a separate risk to the volatility of the MTM payment flows. Modelling this counterparty risk is an important part of managing credit risk on derivative transactions.

The counterparty risk arising under derivative transactions is taken into account when reporting the fair value of derivative positions. The adjustment to the value is known as credit value adjustment (CVA). It is the difference between the value of a derivative contract with a risk-free counterparty and that of a contract with the actual counterparty. This is equivalent to the cost of hedging the counterparty risk in the Credit Default Swap (CDS) market.

CVAs for derivative positions are calculated as a function of the expected exposure, which is the average of future hypothetical exposure values for a single transaction or group of transactions with the same counterparty, the credit spread for a given horizon and the LGD.

The expected exposure is calculated using Monte Carlo simulations of risk factors that may affect the valuation of the derivative transactions in order to simulate the exposure to the counterparty through time. These simulated exposures include the effect of credit mitigants such as netting, collateral and mandatory break clauses. Counterparties with appropriate credit mitigants will generate a lower expected exposure profile compared to counterparties without credit mitigants in place for the same derivative transactions.

Management of credit risk and the internal ratings-based approach (continued)

Netting and collateral arrangements for derivatives and SFTs

Credit risk from derivatives and securities financing transactions (SFTs) is mitigated where possible through netting agreements whereby assets and liabilities with the same counterparty can be offset. The Group policy requires all netting arrangements to be legally documented. The ISDA Master Agreement is the Group's preferred agreement for documenting OTC derivatives. It provides the contractual framework within which dealing activities across a full range of OTC products are conducted, and contractually binds both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults or other predetermined events occur. The majority of the Group's OTC derivative exposures are covered by ISDA master netting and ISDA with the Credit Support Annex (CSA) collateral agreements. SFTs are documented under Global Master Repurchase Agreement. Collateral may be obtained against derivative and SFTs, depending on the creditworthiness of the counterparty and/or nature of the transaction. Any non-cash collateral taken in respect of OTC trading exposures will be subject to a 'haircut', which is negotiated at the time of signing the collateral agreement. A haircut is the valuation percentage applicable to each type of collateral and will be largely based on liquidity and price volatility of the underlying security, as well as the counterparty's creditworthiness. The collateral obtained for derivatives is predominantly either cash, direct debt obligation government (G14+) bonds denominated in the domestic currency of the issuing country, debt issued by supranationals or letters of credit issued by an institution with a long-term unsecured debt rating of A+/A3 or better. Where the Group has ISDA master agreements, the collateral document will be the ISDA CSA. The collateral document must give the Group the power to realise any collateral placed with it in the event of the failure of the counterparty.

Internal ratings based (IRB) approach

The IRB approach largely relies on internal models to derive the risk parameters/ components used in determining the capital requirement for a given exposure. The main risk components include measures of the probability of default (PD), loss given default (LGD) and the exposure at default (EAD). The IRB approach is divided into three alternative applications: Own-Estimates, Supervisory Estimates and Specialised Lending.

Own-Estimates IRB (OEIRB): The Group uses its own models to estimate PD, LGD and EAD to calculate given risk exposures for various asset classes and the associated Risk Weighted Assets (RWAs).

Supervisory IRB (SIRB): Barclays uses its own PD estimates, but relies on supervisory estimates for other risk components. The SIRB approach is particularly used to floor risk parameters for wholesale credit exposures where default data scarcity may impact the robustness of the model build process.

Specialised Lending IRB: For specialised lending exposures for which PD cannot be modelled reliably, the Group uses a set of risk weights defined in the relevant regulation, and takes into account a range of prescribed risk factors.

The IRB calculation for credit risk

For both OEIRB and SIRB approaches, the Group uses the regulatory prescribed risk-weight functions for the purposes of deriving capital requirements.

In line with regulatory requirements, Long Run Average PD and downturn LGD and CF (Conversion Factor) estimates are used for each customer/facility to determine regulatory capital for all exposures in scope.

For the purpose of pricing and existing customer management, point in time (PIT) PD, LGD and EAD are generally used as these represent the best estimates of risk given the current position in the credit cycle. Whilst Long Run Average PDs are always tested at grade/pool level, PIT PDs are also used for the calculation of capital on certain retail unsecured products, in line with regulation.

Applications of internal ratings

The three components – PD, LGD and CF – are the building blocks used in a variety of applications that measure credit risk across the entire portfolio:

- **Credit approval:** PD models are used in the approval process in both retail and wholesale portfolios. In high-volume retail portfolios, application and behaviour scorecards are frequently used as decision-making tools. In wholesale and some retail mortgage portfolios, PD models are used to direct applications to an appropriate credit- sanctioning level
- **Credit grading:** this was originally introduced in the early 1990s to provide a common measure of risk across the Group. The Group employs a 22-point scale of default probabilities. In some applications, grades in this scale are divided further to permit more detailed analysis. These are shown in Table 34 on page 55
- **Risk-reward and pricing:** RWA derived from the PD, LGD and CF estimates is used to assess the profitability of deals and portfolios and to facilitate risk-adjusted pricing and strategy decisions
- **Risk appetite:** estimates are used to calculate the expected loss and the potential volatility of loss in the Group's risk appetite framework. See page 107
- **Impairment calculation:** under IFRS 9, ECL outputs are produced based on PD, EAD and CF IRB feeder models, with scenario and weighting. See page 126
- **Collections and recoveries:** PD model outputs are used to identify segments of the portfolio where collection and recovery efforts should be prioritised
- **Economic capital (EC) calculation:** EC models for most portfolios use inputs from the IFRS9 impairment models
- **Risk management information:** Risk generate reports to inform senior management on issues such as business performance, risk appetite and EC consumption. Model outputs are used as key indicators in those reports. Risk also generates regular reports on model risk, which covers model accuracy, model use, input data integrity and regulatory compliance among other issues.

Management of credit risk and the internal ratings-based approach (continued)

Ratings processes and models for credit exposures

Wholesale credit

To construct ratings for wholesale customers, including financial institutions, corporations, specialised lending, purchased corporate receivables and equity exposures, the Group complements its internal models suite with external models and rating agencies' information. A model hierarchy is in place requiring users/credit officers to adopt a consistent approach/model to rate each counterparty based on the asset class type and the nature of the transaction.

Wholesale PD models

The Group employs a range of methods in the construction of these models:

- Statistical models are used for our high volume portfolios such as small or medium enterprises (SME). The models are typically built using large amounts of internal data, combined with supplemental data from external data suppliers where available. Wherever external data is sourced to validate or enhance internally held data, similar data quality standards to those applicable to the internal data management are enforced
- Structural models incorporate, in their specification, the elements of the industry- accepted Merton framework to identify the distance to default for a counterparty. This relies upon the modeller having access to specific time series data or data proxies for the portfolio. Data samples used to build and validate these models are typically constructed by appropriately combining data sets from internal default observations with comparable externally obtained data sets from commercial providers such as rating agencies and industry data gathering consortia
- Expert lender models are used for those parts of the portfolio where there is insufficient internal or external data to support the construction of a statistically robust model. These models utilise the knowledge and in-depth expertise of the senior credit officers dealing with the specific customer type being modelled. For all portfolios with a low number of default observations, the Group adopts specific regulatory rules, methodologies and floors in its estimates so that the calibration of the model meets the current regulatory criteria for conservatism

Wholesale LGD models

The LGD models typically rely on statistical analysis to derive the model drivers (including seniority of claim, collateral coverage, recovery periods, industry and costs) that best explain the Group's historical loss experience, often supplemented with other relevant and representative external information where available. The models are calibrated to downturn conditions for regulatory capital purposes and, where internal and external data is scarce, they are subject to FIRB (foundation internal ratings based) floors so that the calibration of the model meets the current regulatory criteria for conservatism.

Wholesale CF models

The wholesale CF models estimate the potential utilisation of the currently available headroom based on statistical analysis of the available internal and external data and past client behaviour. As is the case with the LGD models, the CF models are subject to downturn calibration for regulatory capital purposes and to floors where data is scarce.

Retail credit

Retail banking and cards operations have long and extensive experience of using credit models in assessing and managing risks. As a result, models play an integral role in customer approval and management decisions. Most retail portfolios are data rich; consequently, most models are built in-house using statistical techniques and internal data. Exceptions are some expert lender models (similar to those described in the wholesale context) where data scarcity precludes the statistically robust derivation of model parameters. In these cases, appropriately conservative assumptions are typically used, and wherever possible these models are validated/benchmarked against external data.

Retail PD models

Application and behavioural scorecards are most commonly used for retail PD modelling:

- Application scorecards are derived from historically observed performance of new clients. They are built using customer demographic and financial information, supplemented by credit bureau information where available. Through statistical techniques, the relationship between these candidate variables and the default marker is quantified to produce output scores reflecting a PD. These scores are used primarily for new customer decisioning but are, in some cases, also used to allocate a PD to new customers for the purpose of capital calculation
- Behavioural scorecards differ from application scorecards in that they rely on the historically observed performance of existing clients. The statistically derived output scores are used for existing customer management activities as well as for the purpose of capital calculation

Retail LGD models are built using bespoke methods chosen to best model the operational recovery process and practices. In a number of secured portfolios, LGD drivers are parameterised with market factors (e.g. house price indices, haircut of the property value) to capture market trends. For most unsecured portfolios, where recoveries are not based on collateral, statistical models of cash flows are used to estimate ultimate recoveries and LGDs. In all instances, cash flows are discounted to the point of default by using bespoke country and product level factors. For capital calculations, customised economic downturn adjustments, taking into account loss and default dependency, are made to adjust losses to stressed conditions.

Retail CF models

CF models within retail portfolios are split into two main methodological categories. The general methodology is to derive product level credit conversion factors (CCFs) from historical balance migrations, typically for amortising products such as mortgages, consumer loans. These are frequently further segmented at a bucket level (e.g. by delinquency). The most sophisticated CF models are based on behavioural factors, determining customer level CCFs from characteristics of the individual facility, typically for overdrafts and credit cards. For capital calculations, customised downturn adjustments, taking into account loss and default dependency, are made to adjust for stressed conditions.

Management of credit risk and the internal ratings-based approach (continued)

The control mechanisms for the rating system

Model risk is a risk managed under the ERMF. Consequently, Barclays Model Risk Policy (MRP) and its supporting standards covering the end-to-end model life cycle are in place to support the management of risk models.

Key controls captured by the MRP cover:

- Model governance is anchored in assigning accountabilities and responsibilities to each of the main stakeholders:
  - model owner – each model must have an owner who has overall accountability for the model
  - model developers – support the model owner and drive development according to the model owner's defined scope/ purpose
  - Independent Validation Unit (IVU) – responsible for independent review, challenge and approval of all models
- Externally developed models are subject to the same governance standards as internal models
- Models are classified by materiality (high/low) and complexity (complex/non-complex)
- All models must be validated and approved by IVU before initial implementation/use
- Models are subject to annual assessment, including performance monitoring, by model owner and independently validated by IVU annually
- All models must be recorded in the Group Models Database (GMD), which records model owners and developers
- Model owners must evidence that model implementation is accurate and tested

If a model is found to perform sub-optimally, it may be rejected and/or subjected to a Post Model Adjustment (PMA) before approval for continued use is granted.

The IVU reporting line is separate from that of the model developers. IVU is part of Model Risk Management (MRM), and the head of MRM reports to the Group Chief Risk Officer (GCRO). The model development teams have separate reporting lines to the Barclays UK and Barclays International Chief Risk Officers, who in turn report to the GCRO.

Under the Three Lines of Defence approach stated in the ERMF, the actions of all parties with responsibilities under the MRP are subject to independent review by Barclays Internal Audit.

Validation processes for credit exposures

Validation of credit models covers observed model performance but also the scope of model use, interactions between models, data use and quality, the model's theoretical basis, regulatory compliance and any remediation to model risk that are proposed or in place. The following sections provide more detail on processes for validating the performance of each model type.

Wholesale PD models

To assess model calibration, the IVU compares the model prediction of default frequency to the realised internal default rate both over the latest year and over all observable model history. Due to the relative infrequency of default of large wholesale obligors, a long-run perspective on default risk is vital. Default rates are also compared to external benchmarks where these are relevant and available, such as default rates in rating-agency data. In practice, since financial crises have been infrequent, IVU would expect the model PD used in calculating regulatory capital to exceed the long run observed default rate.

For portfolios where few internal defaults have been observed, portfolio PD is compared to the 'most prudent PD' generated by the industry- standard Pluto-Tasche method, using conservative parameter assumptions.

To assess model discrimination performance, the IVU compares the rank-ordering of internal ratings with the pattern of defaults, if any, to construct the industry-standard Gini statistic or similar. The ordering of internal ratings is also compared to the ordering of internal and external comparator ratings where these are available.

Measures of grade stability and the degree to which PD tracks default rates over time are also routinely calculated to infer relevant aspects of the model performance.

Wholesale LGD models

To assess model calibration, model outputs are compared to the LGD observed on facilities that entered default in 'downturn' periods, as requested by the regulator. Both internal and external data on observed LGD are examined, but preference is given to internal data, since these reflect the Group's recovery policies. Comparisons are performed by product seniority and security status and for other breakdowns of the portfolio. Model outputs are also compared to the long-run average of observed LGD. The time-lapse between facility default and the closure of recovery is varied and may be long. In the construction of observed LGD, recoveries are discounted back to the date of default at a conservative interest rate, following regulatory guidance of at least 9%. As noted above, regulatory floors are in place for the LGD used in calculating regulatory capital for exposure types where few default observations are available.

To assess model discrimination, the IVU compares the rank-ordering of model predictions to that of observed LGD and calculates the Spearman's Rank correlation coefficient and other measures of discrimination.

Wholesale CF models

To assess model calibration, the conversion factors observed in internal data are compared to model predictions, both in downturn periods as defined by the regulator, and on a long-run average basis. Comparisons are performed separately for different product types. Validation focuses on internal data, with external data used as a benchmark, because conversion factors are related to banks' facility management practices. Particular care is used in separating cases where facility limits changed between the date of observation and default, as these can lead to measurements of conversion factors that take extreme values. As a benchmark only, total predicted exposure at default for all defaulted facilities is compared to realised exposure at default. This comparison is done because it is relatively insensitive to extreme values for observed CF on some facilities. The primary validation tests are performed on facility- weighted rather than exposure-weighted basis, however, in line with the relevant regulations.

Management of credit risk and the internal ratings-based approach (continued)

Retail PD models

To assess rating philosophy, i.e. whether it is a Point-in-Time system or Through-the-Cycle system, the IVU produces migration indices to investigate relevant grade migration.

To assess model calibration, the IVU compares the model prediction of default frequency to the realised internal default rate by grade/pool as required by CRR. As a minimum, IVU expects the expected default rate is at least equal or above the level of observed default rate.

To assess model discrimination performance, the IVU compares the rank-ordering of internal ratings with the pattern of defaults, if any, to construct the industry-standard Gini statistic or similar.

To assess model stability, the population distribution, the character distribution and parameter estimates are assessed individually.

A 0.03% regulatory floor is in place for the facility level PD used in calculating regulatory capital.

Retail LGD models

LGD model components are compared to observed value respectively, this may include but not limited to probability of possession/ charge-off, forced sale discount, time from default to crystallisation and discount rate. Where components are similar to PD in nature, the approach stated in the PD section applies to assess the calibration, discrimination and stability of the component.

The calibration of the overall LGD is assessed through the expected against actual comparison by default flow and stock population respectively. The downturn LGD appropriateness is further assessed to test that the downturn LGD is equal to or above the long-run average of observed LGD. This exercise is performed at grade/pool level according to CRR. In the construction of observed LGD, recoveries are discounted back to the date of default at a conservative interest rate, following regulatory guidance. As noted above, regulatory floors are in place for the LGD used in calculating regulatory capital where appropriate (this includes but not limited to the non-zero LGD floor at account level, the collateral uncertainty consideration, the portfolio level LGD floor and UK property haircut floor).

The primary validation tests are performed on facility-weighted rather than exposure-weighted basis, however, in line with the relevant regulations.

Retail CF models

The calibration of the overall CF is assessed through the expected against actual comparison by default flow and stock population respectively. The downturn CF appropriateness is further assessed to test that the downturn CF is equal to or above the long-run average of observed CF. This exercise is performed at grade/pool level according to CRR. Particular care is used in separating cases where facility limits changed between the date of observation and default, as these can lead to measurements of conversion factors that take extreme values.

Depending on the modelling approach, the relevant measure used for PD/LGD may be used accordingly to assess calibration, discrimination and stability.

CF is floored so that the exposure at the point of default cannot be less than exposure observed at point of regulatory reporting.

The primary validation tests are performed on facility-weighted rather than exposure-weighted basis, however, in line with the relevant regulations.

Selected features of material models

The table below contains selected features of the key Group's AIRB credit risk models which are used to calculate RWAs, including AIRB PMAs. Please note that the RWAs reported in this table are based on the models in production as of November 2023.

- PD models listed in the table account for £86bn of total AIRB approach RWAs. CIB RWAs reported in table 74 exclude counterparty credit risk exposures.

Management of credit risk and the internal ratings-based approach (continued)

Table 74: IRB credit risk models' selected features

Component modelled	Portfolio	Size of associated portfolio (RWAs) BUK (£m)	Size of associated portfolio (RWAs) BI (£m)	Model description and methodology	Number of years loss data	Basel asset classes measured	Applicable industry-wide regulatory thresholds
PD	Publicly traded corporate	—	15,343	Statistical model using a Merton-based methodology. It takes quantitative factors as inputs.	> 10 Years	Corporate	PD floor of 0.03%
PD	Customers rated by Moody's and S&P	—	21,471	Rating Agency Equivalent model converts agency ratings into estimated equivalent PiT default rates using credit cycles based on Moody's data.	> 10 Years	Corporate, Financial Institutions and Sovereigns	PD floor of 0.03% for corporate and institutions
PD	SME customers with turnover < £20m	8,506	1,673	Statistical models that uses regression techniques to derive relationship between observed default experience and a set of behavioural variables.	> 10 Years	Corporate SME, SME	Regulatory PD floor of 0.03%
PD	Corporate customers with turnover >= £20m	—	4,807	Statistically derived models sourced from an external vendor (Moody's RiskCalc).	> 10 Years	Corporate	PD floor of 0.03%
PD	UK Home Finance	23,527	—	Statistical scorecards estimated using regression techniques, segmented along arrears status and portfolio type.	>10 Years	Secured By Real Estate (residential and buy-to-let mortgages)	Regulatory PD floor of 0.03%
PD	Barclaycard UK	11,047	—	Statistical scorecards estimated using regression techniques, segmented along arrears status and portfolio type.	6 - 10 Years	Qualifying Revolving Retail (QRRE)	PD floor of 0.03%

Credit Risk IRB models performance back- testing - estimated versus actual

The following tables compare the PDs estimated by the Group's IRB models with the actual default rates. Comparisons are based on the assets in IRB portfolios, excluding Counterparty Credit Risk exposures, and are used to assess performance of the models. The estimates and actual figures represent direct outputs from the models rather than outputs used in regulatory capital calculations that may be adjusted to apply more conservative assumptions.

Risk models are subject to the Model Risk Policy which contains detailed guidance on the minimum standards for model risk management. For example, PDs must be estimated over a sufficient period, show sufficient differentiation in predictions for different customers, show conservatism where data limitations exist, and follow prescriptive techniques. These standards are achieved via an independent validation process using independent experts. Once validated and correctly implemented, models are subject to regular monitoring to ensure they can still be used. Comparing model estimates with actual default rates for PD form part of this monitoring. Such analysis is used to assess and enhance the performance of the models.

Further detail is provided in the management of model risk on page 184 to 186.

Management of credit risk and the internal ratings-based approach (continued)

PD measures

- Within each IRB exposure class, the model estimated Point in time (PiT) PDs are compared with the actual default rates within PD ranges. PD ranges, estimated PDs and actual default rates are based on the existing model default definitions. As of reference month (November 2023), UK Cards, UK Home Finance, UK Current Account, UK Barclayloan and SME are the only portfolios compliant against CRD regulation prior to the embedding of the EBA roadmap. The EBA compliant models are either currently under the PRA approval process or will be submitted as per the IRB Repair / Basel 3.1 roll out plan periodically reviewed by the PRA
- The estimated PDs are forward-looking average PDs from the model at the beginning of the twelve-month period, i.e. average PD of the November 2022 non-defaulted obligors including inactive clients and non-borrowers
- Exposure weighted average PD has been calculated using TTC PD or Regulatory PDs and Average PD has been calculated using PIT PD which leads to difference in obligors used for calculation of Exposure weighted average PD vs. Average PD
- The estimated PDs are compared with the observed average default rate and the simple average of historical annual default rates over the past 5 years, starting November 2018
- The PiT PD is used as a predicted measure in internal monitoring and annual validation of the models. In contrast, the capital calculation uses TTC or Regulatory PDs (not shown below), which is already calibrated to long-run default averages with additional adjustments where modelled outputs display evidence of risk understatement (including credit expert overrides, regulatory adjustments etc.). The PiT measure may be subject to under or over prediction depending on the relative position of the portfolio to the credit cycle
- The above mapping between external ratings and internal PD ranges is based on the published reports from the two rating agencies - Moody's and S&P
- For the wholesale models, the average default probabilities in the tables have been determined from the full scope of obligors graded by the IRB model suites, which may include some obligors that have either zero exposure or zero limits marked at the time of calculation
- The obligors are defined as 'Grade As Group' (GAG) parents for all wholesale models except SME, since wholesale models are built to predict and grade at this level. In SME, the obligors are defined as 'individual borrower' with no connection to group structure, consistent with the model development approach. This methodology is in line with the approaches followed across wholesale models in internal model performance back-testing
- In accordance with the new regulations, specialised lending and counterparty credit risk exposures have been removed from the scope of the wholesale asset classes

Management of credit risk and the internal ratings-based approach (continued)

IRB approach – Back-testing of PD per exposure class (fixed PD scale)

These tables provide an overview of credit risk model performance, assessed by the analysis of average PDs. Please note these tables exclude exposures calculated under the supervisory slotting approach. The straddling obligors between BUK and BI have been classified under BUK.

The tables compare the model output to the actual experience in our portfolios. Such analysis is used to assess and enhance the adequacy and accuracy of models. The outputs are subject to a number of adjustments before they are used in the calculation of capital, e.g adjustments for the position in the credit cycle and the impact of stress on recovery rates.

Table 75 : CR9 - IRB approach – Back-testing of PD for central governments and central banks

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	55	—	0.0%	0.0%	0.0%	0.0%
0.00 to <0.10	54	—	0.0%	*0.0%*	0.0%	0.0%
0.10 to <0.15	1	—	0.0%	—	0.1%	0.0%
0.15 to <0.25	7	—	0.0%	—	0.2%	0.0%
0.25 to <0.50	15	—	0.0%	0.4%	0.4%	0.0%
0.50 to <0.75	12	—	0.0%	—	0.6%	0.0%
0.75 to <2.50	18	—	0.0%	—	1.3%	0.0%
0.75 to <1.75	13	—	0.0%	—	1.1%	0.0%
1.75 to <2.5	5	—	0.0%	—	1.9%	0.0%
2.50 to <10.00	16	—	0.0%	—	3.7%	0.0%
2.5 to <5	11	—	0.0%	—	2.7%	0.0%
5 to <10	5	—	0.0%	—	6.0%	0.0%
10.00 to <100.00	5	—	0.0%	31.6%	21.0%	0.0%
10 to <20	3	—	0.0%	—	15.0%	0.0%
20 to <30	—	—	—	—	—	0.0%
30.00 to <100.00	2	—	0.0%	31.6%	30.0%	0.0%
100.00 (Default)	—	—	—	—	—	0.0%

Table 76 : CR9 - IRB approach – Back-testing of PD for institutions

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	765	—	0.0%	0.1%	0.0%	0.0%
0.00 to <0.10	708	—	0.0%	0.0%	0.0%	0.0%
0.10 to <0.15	57	—	0.0%	0.1%	0.1%	0.4%
0.15 to <0.25	79	—	0.0%	0.2%	0.2%	0.6%
0.25 to <0.50	102	—	0.0%	0.3%	0.4%	0.2%
0.50 to <0.75	94	—	0.0%	0.6%	0.6%	0.2%
0.75 to <2.50	1,345	2	0.1%	1.7%	1.6%	0.8%
0.75 to <1.75	849	2	0.2%	1.1%	1.4%	0.7%
1.75 to <2.5	496	—	0.0%	1.9%	2.1%	1.0%
2.50 to <10.00	940	7	0.7%	3.4%	4.6%	3.4%
2.5 to <5	631	3	0.5%	3.1%	3.4%	3.2%
5 to <10	309	4	1.3%	7.1%	6.9%	3.8%
10.00 to <100.00	236	11	4.7%	14.7%	19.3%	16.2%
10 to <20	161	5	3.1%	14.3%	14.3%	7.9%
20 to <30	47	3	6.4%	23.4%	24.0%	14.2%
30.00 to <100.00	28	3	10.7%	44.8%	40.1%	31.1%
100.00 (Default)	78	—	—	100.0%	100.0%	0.0%

Management of credit risk and the internal ratings-based approach (continued)

Table 77 : CR9 - IRB approach – Back-testing of PD for corporates - SME

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	—	—	—	0.1%	—	0.2%
0.00 to <0.10	—	—	—	0.1%	—	0.1%
0.10 to <0.15	—	—	—	0.1%	—	0.2%
0.15 to <0.25	47	1	2.1%	0.2%	0.2%	0.7%
0.25 to <0.50	998	2	0.2%	0.4%	0.4%	0.4%
0.50 to <0.75	1,868	6	0.3%	0.6%	0.6%	0.8%
0.75 to <2.50	19,784	136	0.7%	1.4%	1.6%	1.5%
0.75 to <1.75	11,766	75	0.6%	1.2%	1.2%	1.3%
1.75 to <2.5	8,018	61	0.8%	2.0%	2.1%	2.4%
2.50 to <10.00	14,770	267	1.8%	4.5%	4.5%	4.6%
2.5 to <5	10,077	132	1.3%	3.4%	3.5%	3.6%
5 to <10	4,693	135	2.9%	6.6%	6.9%	6.5%
10.00 to <100.00	2,445	181	7.4%	20.1%	20.0%	15.4%
10 to <20	1,747	97	5.6%	14.1%	13.7%	11.7%
20 to <30	388	37	9.5%	24.0%	23.7%	20.4%
30.00 to <100.00	310	47	15.2%	43.6%	51.5%	24.0%
100.00 (Default)	1,027	—	—	100.0%	100.0%	—

Table 78 : CR9 - IRB approach – Back-testing of PD for corporates - others

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	901	—	0.0%	0.1%	0.1%	0.1%
0.00 to <0.10	659	—	0.0%	0.1%	0.1%	0.1%
0.10 to <0.15	242	—	0.0%	0.1%	0.1%	0.2%
0.15 to <0.25	579	—	0.0%	0.2%	0.2%	0.2%
0.25 to <0.50	967	—	0.0%	0.3%	0.4%	0.2%
0.50 to <0.75	494	—	0.0%	0.6%	0.6%	0.3%
0.75 to <2.50	5,204	23	0.4%	1.4%	1.4%	0.8%
0.75 to <1.75	3,555	14	0.4%	1.2%	1.1%	0.7%
1.75 to <2.5	1,649	9	0.5%	2.0%	2.1%	1.1%
2.50 to <10.00	5,347	48	0.9%	5.9%	5.5%	2.4%
2.5 to <5	2,276	12	0.5%	3.4%	3.5%	2.0%
5 to <10	3,071	36	1.2%	7.2%	6.9%	3.3%
10.00 to <100.00	871	46	5.3%	18.9%	18.9%	11.1%
10 to <20	639	25	3.9%	16.6%	13.2%	7.6%
20 to <30	76	13	17.1%	24.0%	24.0%	18.3%
30.00 to <100.00	156	8	5.1%	38.8%	39.6%	23.3%
100.00 (Default)	128	—	—	100.0%	100.0%	0.0%

Management of credit risk and the internal ratings-based approach (continued)

Table 79 : CR9 - IRB approach – Back-testing of PD for secured retail - non SME

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	754,953	851	0.1%	0.1%	0.1%	0.1%
0.00 to <0.10	572,614	469	0.1%	0.1%	0.1%	0.1%
0.10 to <0.15	182,339	382	0.2%	0.1%	0.1%	0.2%
0.15 to <0.25	95,321	276	0.3%	0.2%	0.2%	0.2%
0.25 to <0.50	40,038	238	0.6%	0.4%	0.3%	0.5%
0.50 to <0.75	11,348	112	1.0%	0.6%	0.6%	0.8%
0.75 to <2.50	21,210	367	1.7%	1.3%	1.4%	1.4%
0.75 to <1.75	15,485	230	1.5%	1.1%	1.2%	1.3%
1.75 to <2.5	5,725	137	2.4%	2.1%	2.1%	1.7%
2.50 to <10.00	11,561	781	6.8%	4.8%	4.9%	5.4%
2.5 to <5	7,039	310	4.4%	3.5%	3.5%	3.6%
5 to <10	4,522	471	10.4%	7.0%	6.9%	8.4%
10.00 to <100.00	6,514	2,343	36.0%	28.9%	31.0%	32.1%
10 to <20	2,455	509	20.7%	13.3%	13.9%	17.5%
20 to <30	1,241	399	32.2%	24.3%	25.1%	28.8%
30.00 to <100.00	2,818	1,435	50.9%	55.2%	48.5%	47.0%
100.00 (Default)	13,453	—	0.0%	100.0%	100.0%	—

Table 80 : CR9 - IRB approach – Back-testing of PD for revolving retail

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	13,009,814	4,831	0.0%	0.1%	0.1%	0.0%
0.00 to <0.10	10,777,925	2,849	0.0%	0.0%	0.0%	0.0%
0.10 to <0.15	2,231,889	1,982	0.1%	0.1%	0.1%	0.1%
0.15 to <0.25	2,349,994	3,144	0.1%	0.2%	0.2%	0.2%
0.25 to <0.50	1,929,148	5,907	0.3%	0.4%	0.4%	0.3%
0.50 to <0.75	932,016	5,243	0.6%	0.6%	0.6%	0.6%
0.75 to <2.50	2,077,672	26,073	1.3%	1.4%	1.4%	1.4%
0.75 to <1.75	1,551,582	16,456	1.1%	1.1%	1.2%	1.1%
1.75 to <2.5	526,089	9,617	1.8%	2.1%	2.1%	2.1%
2.50 to <10.00	991,014	46,918	4.7%	4.6%	4.6%	5.0%
2.5 to <5	652,404	22,809	3.5%	3.5%	3.5%	3.7%
5 to <10	338,610	24,109	7.1%	6.8%	6.9%	7.3%
10.00 to <100.00	248,480	63,859	25.7%	23.1%	26.6%	26.1%
10 to <20	143,999	19,848	13.8%	13.4%	13.6%	14.4%
20 to <30	39,958	9,209	23.0%	24.0%	24.2%	24.2%
30.00 to <100.00	64,523	34,802	53.9%	52.2%	57.2%	55.2%
100.00 (Default)	251,759	—	0.0%	100.0%	100.0%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 81 : CR9 - IRB approach – Back-testing of PD for other retail - SME

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	8	—	0.0%	0.1%	0.1%	0.1%
0.00 to <0.10	—	—	—	0.1%	—	0.1%
0.10 to <0.15	8	—	0.0%	0.1%	0.1%	0.1%
0.15 to <0.25	5,929	1	0.0%	0.2%	0.2%	0.3%
0.25 to <0.50	75,806	21	0.0%	0.4%	0.3%	0.8%
0.50 to <0.75	41,386	65	0.2%	0.6%	0.6%	1.0%
0.75 to <2.50	389,356	4,435	1.1%	1.5%	1.5%	2.2%
0.75 to <1.75	242,017	2,833	1.2%	1.2%	1.2%	2.0%
1.75 to <2.5	147,339	1,602	1.1%	2.1%	2.1%	3.4%
2.50 to <10.00	310,375	9,415	3.0%	4.6%	4.9%	6.4%
2.5 to <5	186,087	3,964	2.1%	3.5%	3.5%	5.3%
5 to <10	124,288	5,451	4.4%	6.9%	7.0%	8.9%
10.00 to <100.00	97,641	13,822	14.2%	23.9%	19.2%	27.0%
10 to <20	68,632	6,917	10.1%	13.6%	13.9%	18.2%
20 to <30	20,368	3,460	17.0%	24.2%	23.9%	27.9%
30.00 to <100.00	8,641	3,445	39.9%	42.1%	49.9%	49.9%
100.00 (Default)	66,779	—	—	100.0%	100.0%	—

Table 82 : CR9 - IRB approach – Back-testing of PD for other retail - non SME

As at 31 December 2023	Number of obligors at the end of previous year					
PD Range		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	74,483	119	0.2%	0.1%	0.1%	0.1%
0.00 to <0.10	46,195	52	0.1%	0.1%	0.1%	0.1%
0.10 to <0.15	28,288	67	0.2%	0.1%	0.1%	0.2%
0.15 to <0.25	45,983	92	0.2%	0.2%	0.2%	0.2%
0.25 to <0.50	86,481	380	0.4%	0.4%	0.4%	0.4%
0.50 to <0.75	52,458	336	0.6%	0.6%	0.6%	0.6%
0.75 to <2.50	145,891	2,322	1.6%	1.4%	1.4%	1.4%
0.75 to <1.75	107,685	1,385	1.3%	1.2%	1.2%	1.1%
1.75 to <2.5	38,206	937	2.5%	2.1%	2.1%	2.1%
2.50 to <10.00	88,430	4,937	5.6%	4.7%	4.8%	4.9%
2.5 to <5	55,579	2,345	4.2%	3.5%	3.5%	3.6%
5 to <10	32,851	2,592	7.9%	7.0%	7.0%	7.2%
10.00 to <100.00	25,980	8,089	31.1%	27.2%	30.7%	28.0%
10 to <20	14,137	1,984	14.0%	13.6%	13.8%	13.5%
20 to <30	3,471	844	24.3%	24.2%	24.3%	23.7%
30.00 to <100.00	8,372	5,261	62.8%	61.9%	61.8%	60.0%
100.00 (Default)	21,567	—	—	100.0%	100.0%	—

Management of credit risk and the internal ratings-based approach (continued)

IRB approach – Back-testing of PD per exposure class (only for PD estimates according to point (f) of Article 180(1) CRR)

Table 83: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Central Governments and Central Banks

As at 31 December 2023	External rating equivalent		Number of obligors at the end of the year		Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		Number of obligors which defaulted in the year			
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	55	—	0.00%	0.02%	0.00%
0.00 to <0.10	Aaa, Aa1, Aa2,Aa3,A1,A2, A3	AAA, AA+, AA,AA-,A+,A,A-	54	—	0.00%	0.02%	0.00%
0.10 to <0.15	Baa1	BBB+	1	—	0.00%	0.13%	0.00%
0.15 to <0.25	Baa2	BBB	7	—	0.00%	0.21%	0.00%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	15	—	0.00%	0.38%	0.00%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	12	—	0.00%	0.63%	0.00%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	18	—	0.00%	1.28%	0.00%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	13	—	0.00%	1.07%	0.00%
1.75 to <2.5	Ba3,B1	B+	5	—	0.00%	1.85%	0.00%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	16	—	0.00%	3.72%	0.00%
2.5 to <5	B1,B2,B3,Caa1	B+,B	11	—	0.00%	2.70%	0.00%
5 to <10	B3,Caa1	B, B-	5	—	0.00%	5.95%	0.00%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	5	—	0.00%	21.00%	0.00%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	3	—	0.00%	15.00%	0.00%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	—	—	—	—	0.00%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	2	—	0.00%	30.00%	0.00%
100.00 (Default)	D	D	—	—	—	—	—

Management of credit risk and the internal ratings-based approach (continued)

Table 84: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Institutions

As at 31 December 2023	External rating equivalent		Number of obligors at the end of the year		Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		Number of obligors which defaulted in the year			
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	765	—	0.00%	0.04%	0.05%
0.00 to <0.10	Aaa, Aa1, Aa2,Aa3,A1,A2, A3	AAA, AA+, AA,AA-,A+,A,A-	708	—	0.00%	0.03%	0.03%
0.10 to <0.15	Baa1	BBB+	57	—	0.00%	0.12%	0.40%
0.15 to <0.25	Baa2	BBB	79	—	0.00%	0.20%	0.58%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	102	—	0.00%	0.36%	0.18%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	94	—	0.00%	0.64%	0.18%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	1,345	2	0.15%	1.63%	0.76%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	849	2	0.24%	1.35%	0.72%
1.75 to <2.5	Ba3,B1	B+	496	—	0.00%	2.10%	1.00%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	940	7	0.75%	4.58%	3.40%
2.5 to <5	B1,B2,B3,Caa1	B+,B	631	3	0.48%	3.43%	3.21%
5 to <10	B3,Caa1	B, B-	309	4	1.29%	6.93%	3.76%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	236	11	4.66%	19.28%	16.22%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	161	5	3.11%	14.28%	7.94%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	47	3	6.38%	23.98%	14.21%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	28	3	10.71%	40.14%	31.13%
100.00 (Default)	D	D	78	—	—	100.00%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 85: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Corporates - SME

As at 31 December 2023	External rating equivalent		Number of obligors at the end of previous year		Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		obligors which defaulted in the year			
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	—	—	—	—	0.18%
0.00 to <0.10	Aaa,Aa1,Aa2,Aa3,A1,A2,A3	AAA,AA+,AA,AA-,A+,A,A-	—	—	—	—	0.12%
0.10 to <0.15	Baa1	BBB+	—	—	—	—	0.24%
0.15 to <0.25	Baa2	BBB	47	1	2.13%	0.23%	0.65%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	998	2	0.20%	0.41%	0.43%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	1,868	6	0.32%	0.63%	0.83%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	19,784	136	0.69%	1.60%	1.55%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	11,766	75	0.64%	1.25%	1.28%
1.75 to <2.5	Ba3,B1	B+	8,018	61	0.76%	2.11%	2.40%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	14,770	267	1.81%	4.55%	4.57%
2.5 to <5	B1,B2,B3,Caa1	B+,B	10,077	132	1.31%	3.45%	3.60%
5 to <10	B3,Caa1	B, B-	4,693	135	2.88%	6.89%	6.54%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	2,445	181	7.40%	20.04%	15.37%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	1,747	97	5.55%	13.66%	11.68%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	388	37	9.54%	23.65%	20.36%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	310	47	15.16%	51.49%	23.96%
100.00 (Default)	D	D	1,027	—	—	100.00%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 86: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Corporates - Others

As at 31 December 2023	External rating equivalent		Number of obligors at the end of the year		Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		Number of obligors which defaulted in the year			
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	901	—	0.00%	0.08%	0.14%
0.00 to <0.10	Aaa,Aa1,Aa2,Aa3,A1,A2,A3	AAA,AA+,AA,AA-,A+,A,A-	659	—	0.00%	0.05%	0.12%
0.10 to <0.15	Baa1	BBB+	242	—	0.00%	0.12%	0.20%
0.15 to <0.25	Baa2	BBB	579	—	0.00%	0.20%	0.19%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	967	—	0.00%	0.35%	0.23%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	494	—	0.00%	0.64%	0.31%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	5,204	23	0.44%	1.44%	0.78%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	3,555	14	0.39%	1.14%	0.70%
1.75 to <2.5	Ba3,B1	B+	1,649	9	0.55%	2.09%	1.12%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	5,347	48	0.90%	5.45%	2.41%
2.5 to <5	B1,B2,B3,Caa1	B+,B	2,276	12	0.53%	3.50%	1.96%
5 to <10	B3,Caa1	B, B-	3,071	36	1.17%	6.90%	3.29%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	871	46	5.28%	18.87%	11.15%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	639	25	3.91%	13.19%	7.61%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	76	13	17.11%	24.04%	18.29%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	156	8	5.13%	39.60%	23.34%
100.00 (Default)	D	D	128	—	—	100.00%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 87: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Secured Retail - Non SME

As at 31 December 2023	External rating equivalent		Number of obligors at the end of the year				
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		number of obligors which defaulted in the	Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	754,953	851	0.11%	0.08%	0.10%
0.00 to <0.10	Aaa, Aa1, Aa2,Aa3,A1,A2, A3	AAA, AA+, AA,AA-,A+,A,A-	572,614	469	0.08%	0.07%	0.07%
0.10 to <0.15	Baa1	BBB+	182,339	382	0.21%	0.12%	0.16%
0.15 to <0.25	Baa2	BBB	95,321	276	0.29%	0.19%	0.23%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	40,038	238	0.59%	0.33%	0.51%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	11,348	112	0.99%	0.61%	0.84%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	21,210	367	1.73%	1.43%	1.44%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	15,485	230	1.49%	1.18%	1.34%
1.75 to <2.5	Ba3,B1	B+	5,725	137	2.39%	2.08%	1.68%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	11,561	781	6.76%	4.87%	5.42%
2.5 to <5	B1,B2,B3,Caa1	B+,B	7,039	310	4.40%	3.55%	3.57%
5 to <10	B3,Caa1	B, B-	4,522	471	10.42%	6.92%	8.42%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	6,514	2,343	35.97%	31.01%	32.10%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	2,455	509	20.73%	13.86%	17.50%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	1,241	399	32.15%	25.11%	28.85%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	2,818	1,435	50.92%	48.55%	46.96%
100.00 (Default)	D	D	13,453	—	0.00%	100.00%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 88: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Revolving Retail

As at 31 December 2023	External rating equivalent		Number of obligors at the end of previous year				
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	13,009,814	4,831	0.04%	0.05%	0.05%
0.00 to <0.10	Aaa, Aa1, Aa2,Aa3,A1,A2, A3	AAA, AA+, AA,AA-,A+,A,A-	10,777,925	2,849	0.03%	0.04%	0.03%
0.10 to <0.15	Baa1	BBB+	2,231,889	1,982	0.09%	0.12%	0.10%
0.15 to <0.25	Baa2	BBB	2,349,994	3,144	0.13%	0.19%	0.17%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	1,929,148	5,907	0.31%	0.36%	0.33%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	932,016	5,243	0.56%	0.62%	0.59%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	2,077,672	26,073	1.26%	1.39%	1.38%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	1,551,582	16,456	1.06%	1.15%	1.14%
1.75 to <2.5	Ba3,B1	B+	526,089	9,617	1.83%	2.08%	2.08%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	991,014	46,918	4.73%	4.65%	5.02%
2.5 to <5	B1,B2,B3,Caa1	B+,B	652,404	22,809	3.50%	3.47%	3.69%
5 to <10	B3,Caa1	B, B-	338,610	24,109	7.12%	6.93%	7.33%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	248,480	63,859	25.70%	26.64%	26.10%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	143,999	19,848	13.78%	13.61%	14.39%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	39,958	9,209	23.05%	24.21%	24.20%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	64,523	34,802	53.94%	57.19%	55.19%
100.00 (Default)	D	D	251,759	—	0.00%	100.00%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 89: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Other Retail - SME

As at 31 December 2023	External rating equivalent		Number of obligors at the end of previous year				
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	8	—	0.00%	0.14%	0.09%
0.00 to <0.10	Aaa, Aa1, Aa2,Aa3,A1,A2, A3	AAA, AA+, AA,AA-,A+,A,A-	—	—	—	—	0.09%
0.10 to <0.15	Baa1	BBB+	8	—	0.00%	0.14%	0.13%
0.15 to <0.25	Baa2	BBB	5,929	1	0.02%	0.23%	0.31%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	75,806	21	0.03%	0.35%	0.82%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	41,386	65	0.16%	0.63%	0.96%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	389,356	4,435	1.14%	1.53%	2.25%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	242,017	2,833	1.17%	1.17%	1.96%
1.75 to <2.5	Ba3,B1	B+	147,339	1,602	1.09%	2.11%	3.36%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	310,375	9,415	3.03%	4.90%	6.40%
2.5 to <5	B1,B2,B3,Caa1	B+,B	186,087	3,964	2.13%	3.48%	5.28%
5 to <10	B3,Caa1	B, B-	124,288	5,451	4.39%	7.04%	8.91%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	97,641	13,822	14.16%	19.17%	26.98%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	68,632	6,917	10.08%	13.89%	18.23%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	20,368	3,460	16.99%	23.93%	27.92%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	8,641	3,445	39.87%	49.87%	49.88%
100.00 (Default)	D	D	66,779	—	—	100.00%	—

Management of credit risk and the internal ratings-based approach (continued)

Table 90: CR9.1 - IRB approach – Back-testing of PD (only for PD estimates according to point (f) of Article 180(1) CRR) - Other Retail - Non SME

As at 31 December 2023	External rating equivalent		Number of obligors at the end of previous year				
PD Ranges	Moody's Investors Service España S.A.	S&P Global Ratings Europe Limited		Of which number of obligors which defaulted in the year	Observed average default rate (%)	Average PD (%)	Average historical annual default rate (%)
0.00 to <0.15	Aaa, Aa1, Aa2,Aa3,A1,A2, A3,Baa1	AAA, AA+, AA,AA-,A+,A,A-,BBB+	74,483	119	0.16%	0.09%	0.12%
0.00 to <0.10	Aaa, Aa1, Aa2,Aa3,A1,A2, A3	AAA, AA+, AA,AA-,A+,A,A-	46,195	52	0.11%	0.06%	0.09%
0.10 to <0.15	Baa1	BBB+	28,288	67	0.24%	0.12%	0.16%
0.15 to <0.25	Baa2	BBB	45,983	92	0.20%	0.20%	0.20%
0.25 to <0.50	Baa3,Ba1	BBB-,BB+	86,481	380	0.44%	0.36%	0.36%
0.50 to <0.75	Ba1,Ba2	BB+,BB, BB-	52,458	336	0.64%	0.62%	0.57%
0.75 to <2.50	Ba1, Ba2,Ba3,B1	BB,BB-,B+	145,891	2,322	1.59%	1.41%	1.39%
0.75 to <1.75	Ba1, Ba2,Ba3	BB,BB-,B+	107,685	1,385	1.29%	1.17%	1.10%
1.75 to <2.5	Ba3,B1	B+	38,206	937	2.45%	2.10%	2.14%
2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-	88,430	4,937	5.58%	4.79%	4.94%
2.5 to <5	B1,B2,B3,Caa1	B+,B	55,579	2,345	4.22%	3.51%	3.62%
5 to <10	B3,Caa1	B, B-	32,851	2,592	7.89%	6.97%	7.19%
10.00 to <100.00	B3, Caa1,Caa2,Caa3, Ca, C	B-, CCC+,CCC,CCC-, CC+ ,CC, C	25,980	8,089	31.14%	30.68%	28.05%
10 to <20	B3, Caa1, Caa2, Caa3, Ca, C	B-, CCC+,CCC, CCC-, CC+ ,CC, C	14,137	1,984	14.03%	13.80%	13.50%
20 to <30	Caa3, Ca, C	CCC, CCC-, CC+ ,CC, C	3,471	844	24.32%	24.32%	23.71%
30.00 to <100.00	Caa3,Ca, C	CCC, CCC-, CC+ ,CC, C	8,372	5,261	62.84%	61.82%	60.04%
100.00 (Default)	D	D	21,567	—	—	100.00%	—

2023 AIRB models back-testing summary

The section below provides advanced IRB model performance summary based on the above back-testing results, along with the remediation plans.

Wholesale

- No defaults observed for Central Governments or Central Banks asset class. For Institutions asset class, the PiT PDs are higher (conservative) compared to actual default rates for most of the PD ranges
- The Corporate asset class comprises of Social Housing, Business Banking Corporate Others and Other Wholesale Corporates. Overall Corporate asset class continues to maintain low default rates across IRB exposures with estimated PiT PDs being higher than actual default rates for most of the PD ranges
- New Wholesale PD models that comply with IRB Repair requirements were submitted to the PRA in March 2021 for the material wholesale portfolios followed by some less material model submissions in 2023. Interim Post Model Adjustments (PMAs) are in place to mitigate any model weaknesses and compliance gaps until new compliant models are approved by the regulator
- There are no defaults observed in the Social Housing portfolio over the last one year. The new Social Housing PD model was submitted to the PRA in November 2022. Interim Post Model Adjustments (PMAs) are in place to mitigate any model weaknesses and compliance gaps
- Mapping of asset class for SME obligors has been enhanced and SME has now been classified into Retail SME, Corporate SME, Corporate and Institutions. This has led to the movement of BUK SME clients into Corporates and Institutions as compared to last year
- The back-testing results for Institutions, Corporations and Corporate SME also include some smaller clients booked in BUK that have experienced elevated default rates in the past 5 years, with very limited defaults from Corporate and Investment bank in high quality grades. Due to the above, the back-testing results in those tables, particularly in the high-quality grades, do not reflect experience in the Corporate or Investment Banks

SME

- SME comprises BUK Retail SME, BUK Corporate SME and BI Corporate SME
- The back-testing report is based on the CRD compliant models implemented in 2017. October 2023 data has been used as this was the latest available data as of the extraction date
- The PiT PD model over-estimates the default rate for BUK Retail SME (4.39% estimated vs. 3.02% actual) and for combined Corporate SME (3.74% estimated vs. 1.49% actual)

Management of credit risk and the internal ratings-based approach (continued)

- The new set of models will be submitted as per the Basel 3.1 roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to address existing models' deficiencies and compliance gaps

Secured by Real Estate

- This covers the Mortgage portfolios for UK and Italy. Rank ordering is maintained across PiT PD ranges.
- For UK Mortgages, the PiT PD model under-estimates at an overall level (0.38% estimated vs. 0.48% actual). The increase in default rates is a direct reflection of the affordability pressures within the market as a result of rising rates and the cost of living; whereas PIT PD shows a decreasing trend due to the lag in monthly calibration. The TTC PD model continues to maintain conservatism
- The new Capital suite for the UK Mortgage portfolio has been submitted to the PRA, with final discussions ongoing
- For Italy Mortgages, the PiT PD model under-estimates the default rate for Barclays portfolio (0.67% estimated vs. 1.09% actual) and over-estimates for Macquarie portfolio (4.28% estimated vs. 2.79% actual)
- The new Capital Suite for Italy Mortgage portfolio was submitted to the PRA in March 2023

Qualifying Revolving Retail

- This constitutes UK Cards, Germany Cards and UK Current Account portfolios. Rank ordering for estimated PDs is maintained across all 3 portfolios
- For UK Cards, there is under-estimation in the PiT PD model (1.67% estimated vs. 1.70% actual), however the Regulatory PD used for RWA calculation is conservative, and there are adequate PMAs (IRB Repair / Basel 3.1) in place. It is also observed from the latest monitoring exercise that there is a trend of PiT PD moving closer to the recently observed default rates
- For Germany Cards, the PiT PD model over-estimates (0.77% estimated vs. 0.69% actual) at an overall level. The new Capital Suite for Germany Cards portfolio was submitted to the PRA in May 2023
- For UK Current Account, there is an over-estimation in the PiT PD model at an overall level (0.32% estimated vs. 0.24% actual). Regulatory PD is also conservative
- The new set of models will be submitted for UK Cards and UK Current Account as per the Basel 3.1 roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to address existing models' deficiencies and compliance gaps for all three portfolios

Other Retail

- This covers the UK Barclayloan portfolio. The back-testing report is based on the CRD compliant model, approved by the PRA and implemented in July 2019
- The PD model under-estimates (2.90% estimated vs. 3.13% actual) on PiT basis at an overall level; rank ordering is maintained. Regulatory PD remains conservative
- The new set of models will be submitted as per the Basel 3.1 roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to address existing models' deficiencies and compliance gaps

Management of market risk

This section describes the governance structure specific to the management of market risks, as well as a discussion of measurement techniques.

- **Market risks are varied, and a range of techniques must be used to manage them. From page 154 we provide an overview of the market risks we incur across Barclays Group**

- **Market risk, the risk of loss arising from potential adverse changes in the value of the Group's assets and liabilities from fluctuation in market variables including, but not limited to, interest rates, foreign exchange, equity prices, commodity prices, credit spreads, implied volatilities and asset correlations, is covered on pages 155 to 162. Measurement techniques such as VaR, are discussed, as well as techniques applied when statistical techniques are not appropriate**

- **The governance structure specific to market risks is discussed on pages 154 to 155**

Management of market risk

Market risk

The risk of loss arising from potential adverse changes in the value of the Group's assets and liabilities from fluctuation in market variables including, but not limited to, interest rates, foreign exchange, equity prices, commodity prices, credit spreads, implied volatilities and asset correlations.

Overview

Market risk arises primarily as a result of client facilitation in wholesale markets, involving market-making activities, risk management solutions and execution of syndications. Upon execution of a trade with a client, the Group will look to hedge against the risk of the trade moving in an adverse direction. Mismatches between client transactions and hedges result in market risk due to changes in asset prices, volatility or correlations.

Organisation and structure

Market risk in the businesses resides primarily in Barclays International and Group Treasury. These businesses have the mandate to assume market risk. Market risk oversight and challenge is provided by business committees and Barclays Group committees, including the Market Risk committee. The front office and Treasury trading desks are responsible for managing market risk on a day-to-day basis, where they are required to understand and adhere to all limits applicable to their businesses. The Market Risk team support the trading desks with the day-to-day limit management of market risk exposures through governance processes which are outlined in supporting market risk policies and standards.

Roles and responsibilities

The objectives of market risk management are to:

- identify, understand and control market risk by robust measurement, limit setting, reporting and oversight
- facilitate business growth within a controlled and transparent risk management framework
- control market risk in the businesses according to the allocated appetite

To meet the above objectives, a governance structure is in place to manage these risks consistent with the ERMF

The BRC recommends market risk appetite to the Barclays PLC Board for their approval. The Market Risk Principal Risk Lead (PR Lead) is responsible for the Market Risk Control Framework and, under delegated authority from the Group CRO, agrees with the business CROs a limit framework within the context of the approved market risk appetite.

The Market Risk Committee (MRC) reviews and makes recommendations concerning the Group-wide market risk profile. This includes overseeing the operation of the Market Risk Framework and associated policies and standards, monitoring market and regulatory changes, and reviewing limit utilisation levels. The committee is chaired by the PR Lead and attendees include the business heads of market risk and business aligned market risk managers.

In addition to MRC, the Corporate and Investment Bank Risk Committee (CIBRC) is the main forum in which market risk exposures are discussed and reviewed with senior business heads. The Committee is chaired by the CRO of Barclays International and meets weekly, covering current market events, notable market risk exposures, and key risk topics. New business initiatives are generally socialised at CIBRC before any changes to risk appetite or associated limits are considered in other governance committees.

Organisation and structure

Barclays PLC Board Risk Committee

- Review and recommends Barclays Group's risk appetite for market risk to the Barclays PLC Board
- Reviews and material events impacting market risk

Barclays Group Risk Committee

- Monitors risk profile with respect to financial risk appetite
- Debates and agrees actions on the financial risk profile and risk strategy across Barclays Group
- Considers issues escalated by risk type heads and business risk directors

Barclays Group Market Risk Committee

- Reviews market risk appetite proposals from the business
- Oversees the management of Barclays Group's market risk profile
- Reviews arising market or regulatory issues
- Reviews state of the implementation of the risk frameworks in the business

The head of each business is accountable for all market risks associated with its activities, while the head of the market risk team covering each business is responsible for implementing the risk control framework for market risk.

Management of market risk (continued)

Risk management in the setting of strategy

Appetite for market risk is recommended by the risk function to BRC for agreement by the Board. Mandate and scales are set to control levels of market risk and maintain the Group remains within the BRC approved risk appetite. The Group runs an annual Group-wide stress testing exercise which aims to simulate the dynamics of exposures across the Group and cover all risk factors. The exercise is also designed to measure the impact to the Group's fundamental business plan, and is used to manage the wider Group's strategy.

+ See page 115 **for more detail on the role of risk management in the setting of strategy.**

Market risk culture

Market risk managers are independent from the businesses they cover, and their line management reports into the CRO. This embeds a risk culture with strong adherence to limits that support the Group-wide risk appetite.

+ See page 111 **for more detail on risk culture.**

Management of market risk, mitigation and hedging policies

The governance structure helps maintain all market risks that the Group is exposed to are well managed and understood. Market risk is generated primarily as a result of client facilitation in wholesale markets, involving market making activities, risk management solutions and execution of syndications. Group Treasury supports the businesses in managing their interest rate risk. Positions will contribute both to market risk limits and regulatory capital if relevant.

As part of the continuous monitoring of the risk profile, Market Risk management meets with the businesses to discuss the risk profile on a regular basis. The outcome of these reviews includes further detailed assessments of event risk via stress testing, risk mitigation and risk reduction.

Market risk measurement – management view

Market risk measures

A range of complementary approaches to measure market risk are used which aim to capture the level of losses that the Group is exposed to due to unfavourable changes in asset prices. The primary tools to control the Group's exposures are:

Measure	Description
Management Value at Risk (VaR)	An estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for one business day.
Primary stress tests	An estimate of the potential losses that might arise due to liquid risk factors from extreme market moves or scenarios.
Secondary stress tests	An estimate of the potential losses that might arise due to illiquid risk factors from extreme market moves of scenarios.
Business scenario stresses	Multi-asset scenario analysis of severe, but plausible events that may simultaneously impact Market Risk exposures across all primary and secondary stresses.

The use of Management VaR for market risk is broader than the application of VaR for regulatory capital, and captures standardised, advanced and certain banking books where market risks are deemed to exist. The wider scope of Management VaR is what Barclays Group deems as material market risk exposures which may have a detrimental impact on the performance of the trading business. The scope used in Regulatory VaR (see page 158) is narrower as it applies only to trading book positions as approved by the PRA.

Stress testing and scenario analysis are also an important part of the risk management framework, to capture potential risk that may arise in severe but plausible events.

Management VaR

- estimates the potential loss arising from unfavourable market movements, over one day for a given confidence level
- differs from the Regulatory VaR used for capital purposes in scope and confidence level
- back testing is performed to evaluate that the model is fit for purpose

VaR is an estimate of the potential loss arising from unfavourable market movements if the current positions were to be held unchanged for one business day. For internal market risk management purposes, a historical simulation methodology with a one-year equally weighted historical period, at the 95% confidence level is used for all trading books and some banking books. Risk factors driving VaR are grouped into key risk types as summarised below:

Management of market risk (continued)

Risk factor	Description
Interest rate	Risk arises from changes in the level or shape of interest rate curves can impact the price of interest rate sensitive assets, such as bonds and derivatives instruments. For example, the price of an interest rate swap will vary due to changes in the absolute level of interest rates and/ or in the shape of the yield curve.
Foreign exchange	Risk arises from changes in foreign exchange rates and volatilities.
Equity	Risk due to changes in equity prices, volatilities and dividend yields, for example as part of market making activities, syndication or underwriting of initial public offerings.
Commodity	Risk arises from providing clients and investors with access to a range of commodity products on both a derivative and physical basis.
Traded credit	Risk arises from changes in credit quality impacting the prices of assets, for example positions such as corporate bonds, securitised products and credit based derivative instruments, including credit default swaps. Similar to interest rate risk, the price of these assets will change as the credit quality of the asset (or its pricing index in the case of credit based derivative instruments) changes.
Securitised products	Risk arises from structured cash flow positions predominantly of an asset-backed nature, and their derivatives. The market value of these positions is influenced by the interplay of the cash-flow structure with changes in credit quality and value of assets backing the positions, as well as changes in the level and shape of interest rate curves.

The output of the Management VaR model can be readily tested through back testing. This checks instances where actual losses exceed the predicted potential loss estimated by the VaR model. If the number of instances is higher than expected, where actual losses exceed the predicted potential loss estimated by the VaR model, this may indicate limitations with the VaR calculation, for example, a risk factor that would not be adequately captured by the model.

The Management VaR model in some instances may not appropriately measure some market risk exposures, especially for market moves that are not directly observable via prices. Market risk managers are required to identify risks which are not adequately captured in VaR ('risks not in VaR' or 'RNIVs', discussed below).

When reviewing VaR estimates, the following considerations are taken into account:

- the historical simulation uses the most recent year of past data to generate possible future market moves, but the past may not be a good indicator of the future
- the one-day time horizon may not fully capture the market risk of positions that cannot be closed out or hedged within one day
- VaR is based on positions as at close of business and consequently, it is not an appropriate measure for intra-day risk arising from a position bought and sold on the same day
- VaR does not indicate the potential loss beyond the VaR confidence level

Limits are applied at the total level as well as by risk factor type, which are then cascaded down to particular trading desks and businesses by the market risk management function.

Primary stress tests

Primary stress tests are key tools used by management to measure liquid market risks from extreme market movements or scenarios in each major trading asset class.

Stress testing provides an estimate of potential significant future losses that might arise from extreme market moves or scenarios. Primary stress tests apply stress moves to key liquid risk factors for each of the major trading asset classes, namely:

- **interest rates:** shock to the level and structure of interest rates and inflation across currencies
- **credit:** impact on traded corporate credit exposures and securities structures, including across rating grades, geography, sectors and products
- **foreign exchange:** impact of unfavourable moves in currency prices and volatility
- **equity:** shocks to share prices including exposures to specific markets and sectors
- **commodities:** adverse commodity price changes across both physical and derivative markets

Primary stresses apply moves to liquid assets incorporating up to 10 days holding period. Shock scenarios are determined by a combination of observed extreme historical moves and forward looking elements as appropriate.

Primary stresses are calculated for each asset class on a standalone basis. Risk managers calculate several stress scenarios and communicate the results to senior managers to highlight concentrations and the level of exposures. Primary stress loss limits are applied across the trading businesses and is a key market risk control.

Secondary stress tests

Secondary stress tests are key tools used by management to measure illiquid, directional or concentrated market risks from extreme market movements or scenarios in each major asset class.

Secondary stress tests are used in measuring potential losses arising from market risks that are not captured in the primary stress tests. These may relate to financial instruments or risk exposures which are not readily or easily tradable or markets that are naturally sensitive to a rapid deterioration in market conditions.

Management of market risk (continued)

For each asset class, secondary stresses are aggregated to a single stress loss which allows the business to manage its liquid and illiquid risk factors. Limits against secondary stress losses are also applied, which allows the Group to manage and control the level of illiquid risk factors.

Stresses are specific to the exposure held and are calibrated on both observed extreme moves and some forward-looking elements as appropriate.

Business scenario stresses

Business scenario stresses are key tools used by management to measure aggregated losses across the entire trading book as a result of extreme forward-looking scenarios encompassing simultaneous shocks to multiple asset classes.

Business scenario stresses apply simultaneous shocks to all risk factors assessed by applying changes to foreign exchange rates, interest rates, credit spreads, commodities and equities to the entire portfolio, for example, the impact of a rapid and extreme slowdown in the global economy. The measure shows results on a multi-asset basis across all trading exposures. Business scenarios are used for risk appetite monitoring purposes and are useful in identifying concentrations of exposures and highlighting areas that may provide some diversification.

The estimated impacts on market risk exposures are calculated and reported by the market risk management function on a frequent and regular basis. The stress scenario and the calibration on the shocks are also reviewed by market risk managers periodically for its relevance considering any market environment.

Scenarios focusing on adverse global recession, deterioration in the availability of liquidity, contagion effects of a slowdown in one of the major economies, easing of global growth concerns, and a historical event scenario are examples of business scenarios. If necessary, market event-specific scenarios are also calculated, such as:

- a unilateral decision to exit the Eurozone by a member country;
- the impact of a large financial institution collapse; or
- a disorderly exit of quantitative easing programmes, including unexpected rapid and continuous interest rate rises as a result.

+ See page 93 **for a review of business scenario stresses.**

Market risk measurement – regulatory view

Regulatory view of traded positions

For regulatory purposes, the trading book is defined as one that consists of all positions in CRD financial instruments and commodities held either with trading intent, or in order to hedge other elements of trading, and which are either free of any restrictive covenants on their tradability, or able to be hedged. A CRD financial instrument is defined as a contract that gives rise to both a financial asset of one party and a financial liability or equity instrument of another party.

All of the below regulatory measures, including the standardised approach, generate market risk capital requirements, in line with the regulatory requirements set out in the Capital Requirements Directive and Regulation ('CRD IV'). Positions which cannot be included in the trading book are included within the banking book and generate risk capital requirements in line with this treatment.

Inclusion of exposures in the regulatory trading book

The Group maintains a Trading Book Policy, which defines the minimum requirements a business must meet to run trading positions and the process by which positions are allocated to trading or banking books. Trading intent is a key element in deciding whether a position should be treated as a trading or banking book exposure.

Positions in the trading book are subject to market risk capital, computed using models where regulatory approval has been granted, otherwise the market risk capital requirement is calculated using standard rules as defined in the Capital Requirement Regulation (CRR), part of the CRD IV package. If any of the criteria specified in the policy are not met for a position, then that position must be allocated to the banking book.

Most of the Group's market risk regulatory models are assigned the highest model materiality rating. Consequently, the Regulatory VaR model is subject to annual re-approval by the Independent Validation Unit. The Independent Validation Unit makes an assessment of model assumptions and considers evidence of model suitability provided by the model owner. The following table summarises the models used for market risk regulatory purposes and the applicable regulatory thresholds.

Valuation standards

CRR article 105 defines regulatory principles which need to be applied to fair value assets and liabilities, in order to determine a prudent valuation.

The Prudent Valuation Adjustment (PVA) is applied to accounting fair values where there are a range of plausible alternative valuations. It is calculated in accordance with Article 105 of the CRR, and includes (where relevant) adjustments for the following factors: unearned credit spreads, close-out costs, operational risk, market price uncertainty, early termination, investing and funding costs, future administrative costs and model risk. The PVA includes adjustment for all fair valued financial instruments and commodities, irrespective of whether they are in the trading or banking book.

Management of market risk (continued)

Regulatory measures for Market risk

There are a number of regulatory measures which the Group has permission to use in calculating regulatory capital (internal models approval):

Measure	Definition
Regulatory Value at Risk (VaR)	An estimate of the potential loss arising from unfavourable market movements calibrated to 99% confidence interval and 10-day holding period.
Stressed Value at Risk (SVaR)	An estimate of the potential loss arising from a twelve-month period of significant financial stress calibrated to 99% confidence interval and 10-day holding period.
Incremental Risk Charge (IRC)	An estimate of the incremental risk arising from rating migrations and defaults, beyond what is already captured in specific market risk VaR for the non-correlation trading portfolio. Uses a 99.9% confidence level and a one-year horizon.
Comprehensive Risk Measure (CRM)	An estimate of all the material market risk, including rating migration and default, for the correlation trading portfolio.
	The legal entities for which the PRA has given permission to use internal models for market risk regulatory capital are: BBPlc Trading, BCSL and BBI on a consolidated basis; and BBPlc Trading, BBI and BCSL on a solo basis. The legal entity for which the FRBNY has given permission to use internal models is IHC. The legal entity for which the Central Bank of

Regulatory VaR

- Estimates the potential loss arising from unfavourable market movements
- Regulatory VaR differs from the management approach in the following respects

VaR Variable	Regulatory	Management
Confidence interval	99%	95%
Scope	As approved by the regulator (PRA,CBI or FRBNY)	Management view of market risk exposures. Includes trading books and banking books exposed to price risk
Look-back period	1 year	1 year
Liquidity Horizon (holding period)	10 days	1 day

Regulatory VaR allows oversight of the total potential losses, at a given confidence level, of those trading books which received approval from the regulator to be covered via an internal model. Barclays Group uses a Regulatory VaR model that diversifies general and specific market risk for regulatory capital. Market risks are captured in the Regulatory VaR model using either full revaluation or an approximate revaluation approach depending on the type of product. When simulating potential movements in risk factors, returns are modelled using a combination of absolute changes, proportional changes or a blended mix of these two approaches.

Management VaR allows Barclays Group to supervise the total market risk across Barclays Group, including all trading books and some banking books. Management VaR is also utilised for the internal capital model (economic capital).

Regulatory VaR is fundamentally the same as the Management VaR (see page 155), with the key differences listed above. The model is complemented with RNIVs, as described on page 162.

Stressed Value at Risk (SVaR)

- Estimates the potential loss arising from unfavourable market movements in a stressed environment
- Identical to Regulatory VaR, but calibrated over a one-year stressed period
- Regulatory capital is allocated to individual businesses. For regulatory capital calculation purposes the Group computes a market risk capital requirement based on a one-day scaled to ten-day, 99% VaR metric calibrated to a period of significant financial stress. This SVaR capital requirement is added to the market risk capital requirement arising from regulatory VaR, the Incremental Risk Charge and the All Price Risk on an undiversified basis

The SVaR model must be identical to the VaR model used by the Group, with the exception that the SVaR model must be calibrated to a one-year period of significant financial stress ('the SVaR period'). The Group selects the SVaR period to be a one-year period that maximises Regulatory VaR for positions in scope of regulatory approval. The SVaR period is ordinarily reviewed on a monthly basis or when required by material changes in market conditions or the trading portfolio.

SVaR cannot be meaningfully backtested as it is not sensitive to current market conditions. Many market risk factors with complete historical data over a one-year period may not have complete data covering the SVaR period and consequently, more proxies may be required for SVaR than for VaR. The SVaR metric itself has the same strengths and weaknesses as the Group's VaR model.

Management of market risk (continued)

Incremental Risk Charge (IRC)

- Captures risk arising from rating migrations and defaults for traded debt instruments incremental to that already captured by Regulatory VaR and SVaR

IRC captures the risk arising from ratings migrations or defaults in the traded credit portfolio. IRC measures this risk at a 99.9% confidence level with a one-year holding period and applies to all positions in scope for specific risk including sovereign exposure.

The Group's IRC model simulates default and ratings transition events for individual names. The behaviour of names is correlated with one another to simulate a systemic factor to model the possibility of multiple downgrades or defaults. The correlations between non-sovereign names are based on the Basel- defined correlations stipulated in the IRB approach to measuring credit risk capital, with a fixed correlation between sovereign names.

The Group's IRC model simulates the impact of a ratings transition by estimating the improvement or deterioration in credit spreads resulting from the transition and assumes that the historically observed average change in credit spreads (measured in relative terms) resulting from ratings transitions provides an accurate estimate of likely widening or tightening of credit spreads in future transitions. For each position, the model computes the impact of spread moves up or down at pre-specified relative movements, and the actual impact is obtained by interpolating or extrapolating the actual spread move from these pre-computed values.

The Group's IRC model assumes that ratings transitions, defaults and any spread increases occur on an instantaneous basis.

Table 91: Market risk models selected features

Component modelled	Number of significant models and size of associated portfolio (RWAs)	Model description and methodology	Applicable regulatory thresholds
Regulatory VaR	1 model; £4.2bn	Equally-weighted historical simulation of potential daily P&L arising from market moves	Regulatory VaR is computed with ten-day holding period and 99% confidence level
SVaR	1 model; £11.2bn	Same methodology as used for VaR model, but using a different time series	Regulatory SVaR is computed with ten- day holding period and 99% confidence level
IRC	1 model; £6.2bn	Monte Carlo simulation of P&L arising from ratings migrations and defaults	IRC is computed with one-year holding period and 99.9% confidence level
CRM	1 model; £0.0bn	Same approach as IRC, but it incorporates market-driven movements in spreads and correlations for application to correlation trading portfolios	CRM is computed with one-year holding period and 99.9% confidence level. As required in CRD IV, the CRM charge is subject to a floor set with reference to standard rules charge

Regulatory back testing

Backtesting is the method by which Group checks and affirms that its procedures for estimating VaR are reasonable and serve its purpose of estimating the potential loss arising from unfavourable market movements. The backtesting process is a regulatory requirement and seeks to estimate the performance of the regulatory VaR model. Performance is measured by the number of exceptions to the model, i.e. actual or hypothetical P&L loss in one trading day is greater than the estimated VaR for the same trading day. Group's procedures could be underestimating VaR if exceptions occur more frequently than expected (a 99% confidence interval indicates that one exception will occur in 100 days).

Backtesting is performed at a legal entity level, sub-portfolio levels and business-aligned portfolios (shown in the table below and in the charts on the next page) on Group's regulatory VaR model. Regulatory backtesting compares Regulatory VaR at 99% confidence level (one-day holding period equivalent) to actual and hypothetical changes in portfolio value as defined in CRR Article 366. The consolidated Barclays Bank PLC, Barclays Capital Securities Ltd and Barclays Bank Ireland PLC is the highest level of consolidation for the VaR model that is used in the calculation of regulatory capital. The IHC backtesting process compares IHC 99% Regulatory VaR against Hypothetical P&L. The definition of Hypothetical P&L and the scope of Regulatory VaR for the IHC are consistent with the Federal Reserve's Market Risk Rule. From the perspective of internal model approval, IHC is not part of the Group regulatory capital calculation, however it is included below to provide a comprehensive view of model performance and usage across legal entities.

A backtesting exception is generated when a loss is greater than the daily VaR for any given day.

As defined by the PRA, a green status is consistent with a good working VaR model and is achieved for models that have four or fewer backtesting exceptions in a 250-day period. Backtesting counts the number of days when a loss exceeds the corresponding VaR estimate, measured at the 99% regulatory confidence level.

Backtesting is also performed on management VaR to validate it remains reasonable and fit for purpose.

The table below shows the VaR backtesting exceptions on legal entities aligned to Group's business as at 31 December 2023. Model performance at a legal entity level determines regulatory capital within those entities. Legal entity disclosure is also relevant from a management perspective as Barclays' VaR and model performance of VaR for a legal entity across asset classes are key metrics in addition to asset class metrics across legal entities.

Management of market risk (continued)

Barclays' regulatory VaR model at the consolidated legal entity level maintained green model status throughout 2023.

	Actual P&L		Hypo P&L	
Portfolios	**Total Exceptions**	**Status**	**Total Exceptions**	**Status**
BBPlc Trading + BCSL + BBI	0	G	2	G
BBPlc Trading	0	G	2	G
BCSL	1	G	4	G
BBI	0	G	0	G
IHC	N/A	N/A	0	G

The charts below show VaR for the Group's regulatory portfolios aligned by legal entity. The dark blue and light blue points on the charts indicate losses on those days on which actual and hypothetical P&L respectively exceeded the VaR amount.

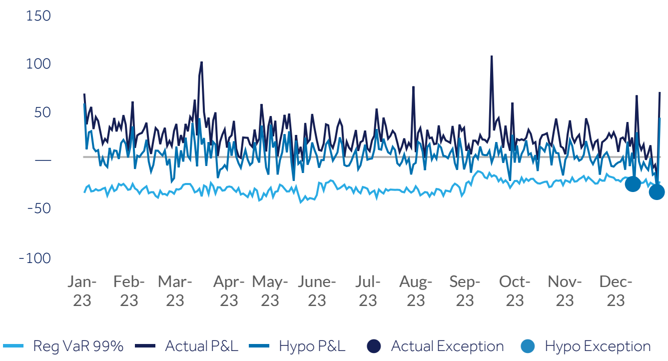
In addition to being driven by market moves in excess of the 99% confidence level, backtesting exceptions can be caused by risks that impact P&L not captured directly in the VaR itself but separately captured as non VaR-type, namely Risks Not in VaR (RNIVs).

In 2023, the Group experienced two back testing exceptions against hypothetical P&L, one of which was driven by a rally in rates and equity markets following a change in market expectations of central bank interest rates, while the other was driven by lower liquidity in rates and equity markets at the end of the year.

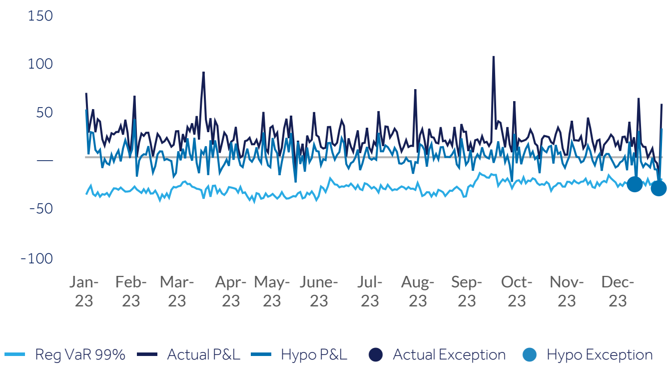
Management of market risk (continued)

Table 92: MR4 - Comparison of Var estimates with gains/ losses

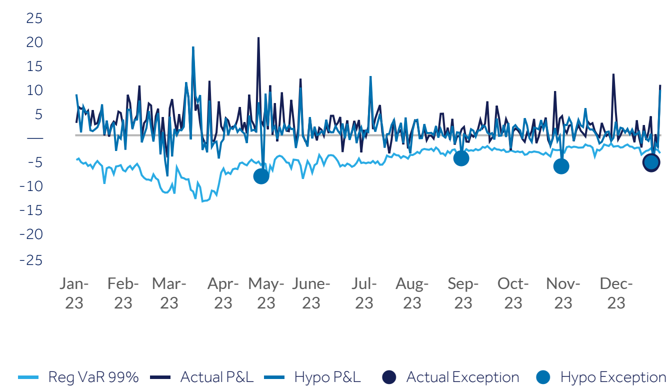
BBPLC Trading + BCSL + BBI
(£m)



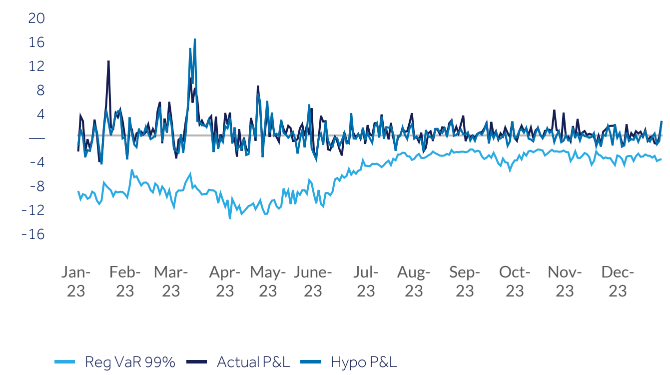
BBPLC Trading
(£m)



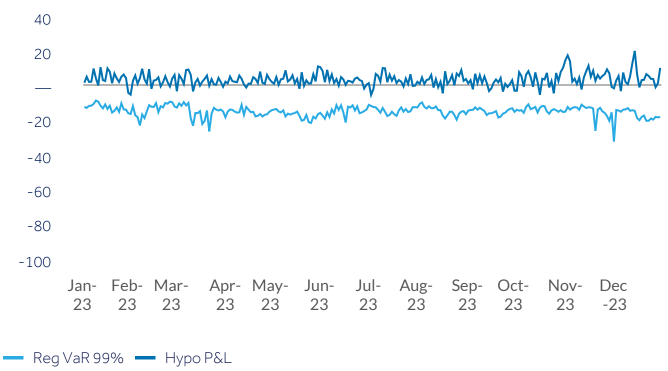
BCSL
(£m)



BBI
(£m)



IHC
(£m)



Management of market risk (continued)

Management of risks not fully captured in models, including Risks not in VaR (RNIVs)

Barclays Group's risk identification process captures risks that either have been observed to, or have the capacity to, produce material losses in normal and stressed market conditions. To maintain risk coverage, the range of core risks is identified following either market convention, regulatory guidance, or the specific historical experience of Barclays Group; and for new products or changes to existing products, is considered as part of the New and Amended Product Approval (NAPA) process.

In some instances, the Management and Regulatory VaR model may not appropriately measure some market risks, especially where market moves are not directly observable via prices. Barclays Group has policies to apply add-ons where risks are not captured by the model. RNIVs refer to those core risks that are not captured, or not adequately captured, in VaR and SVaR. RNIVs can include:

- risks not fully captured elsewhere and/or illiquid risk factors such as cross-risks;
- basis risks;
- higher-order risks;
- calibration parameters, for instance to model parameter uncertainty; and
- potential losses in excess of fair valuation adjustments taken in line with the Valuation Control Framework. Please see Note 17 in the Barclays PLC Annual Report 2023 'Fair value of assets and liabilities' for more details of fair value adjustments

The treatment of RNIVs follows whether the risks are considered VaR type or non-VaR type, which depends on, and can change with, the evolving state of financial markets:

- VaR-type RNIVs: Typically represent risks that are not well captured in VaR, mainly because of infrastructure limitations or methodology limitations. In this instance two metrics are calculated, a VaR RNIV and a SVaR RNIV, using the same confidence level, capital horizon and observation period as VaR and SVaR respectively and are capitalised using the same multipliers as VaR and SVaR
- Non VaR-type RNIVs: Typically represent risks which would not be well captured by any VaR model either because it represents an event not historically observed in the VaR time series (e.g., currency peg break) or a market risk factor which is not seen to move frequently (e.g. correlation). These are typically estimated using stress scenarios. The stress methodology is calibrated equivalently to at least 99% confidence level and a capital horizon of at least 10 days over an appropriate observation period, depending on the liquidity of the risk. For the purpose of regulatory capital, the capital charge is equal to the loss arising from the stress test except when these risks are already adequately captured elsewhere e.g. via the IRC or CRM models, which are intended to capture certain risks not adequately covered by VaR

For regulatory capital these RNIVs are aggregated without any offsetting or diversification benefit.

Market risk control

The metrics that are used to measure market risk are controlled through the implementation of appropriate limit frameworks. Limits are set at the total Barclays Group level, asset class level, for example, interest rate risk, and at business level, for example, rates trading. Stress limits and many book limits, such as foreign exchange and interest rate sensitivity limits, are also used to control risk appetite.

Barclays Group-wide limits are reported to the BRC and are termed A-level limits for total management VaR and scenario stress. Lower level limits by business are set by risk managers to monitor and control overall risk appetite utilisation.

Group-wide VaR and stress limits are set after considering revenue generation opportunities and overall risk appetite approved by the Board. Compliance with limits is monitored by the independent risk functions in the trading businesses with oversight provided by market risk.

Throughout 2023, Barclays Group Market Risk continued its ongoing programme of control testing and conformance testing on the trading businesses' market risk management practices. These reviews are intended to verify the business's conformance with the Market Risk Control Framework and best practices.

Market risk reporting

Trading businesses market risk managers produce a number of detailed and summary market risk reports daily, weekly, fortnightly and monthly for business and risk managers. Where relevant on a Barclays Group-wide basis, these are sent to Barclays Group Market Risk for review and a risk summary is presented at Barclays Group Market Risk Committee and the trading businesses' various market risk committees. The overall market risk profile is also presented to BRC on a regular basis.

Management of securitisation exposures

Securitisations give rise to credit, market and other risks. This section discusses the types of business activities and exposures that we incur in the course of activities related to securitisations.

- **The objectives pursued in securitisation activities and the types of activities undertaken are discussed on page 164**
- **A description of the risks incurred in the course of securitisation activities, and how we manage them, is contained on page 165**

Management of securitisation exposures

This section discloses information about the Group's securitisation activities distinguishing between the various functions performed in supporting its customers and managing its risks. It includes traditional securitisations as well as synthetic transactions effected through the use of derivatives or guarantees.

For the purposes of Pillar 3 disclosures on pages 96 to 101, a securitisation is defined as a transaction or scheme where the payments are dependent upon the performance of a single exposure or pool of exposures and where the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme. Such transactions are ordinarily undertaken to transfer risk for the Group or on behalf of a client.

Certain transactions undertaken by the Group are not disclosed in the quantitative section (pages 96 to 101) as they do not fall under the regulatory securitisation framework (the new securitisation Regulation (EU) 2017/2402 (the Securitisation Regulation) and Regulation (EU) 2017/2401 (amendments to CRR)). These include funding transactions for the purposes of generating term liquidity, and certain government guaranteed transactions.

Objectives of securitisation activities

In the course of its business, the Group has undertaken securitisations of its own originated assets as well as the securitisation of primarily third party assets via special purpose vehicles, sponsored conduit vehicles and shelf programmes.

The Group has securitised its own originated assets in order to manage the Group's credit risk position, to generate rated collateral, and to generate term funding for the Group balance sheet. The Group also participates in primary securitisations and distributes bonds to the market to facilitate term liquidity for its clients.
The Group also purchases asset backed loans and securities for the purpose of supporting client franchise, and purchases asset backed securities (ABS) for the purpose of investing its liquidity pool.

Further, the Group makes a secondary market for a range of securitised products globally, including residential mortgage backed securities (RMBS), commercial mortgage backed securities (CMBS) and ABS.

The role and involvement of Barclays Group in securitisations in 2023

The Group adopts the following roles in the securitisation processes in which it is involved:

Originator of assets for securitisation

The Group originates or purchases commercial mortgage loans for the purpose of securitisation. The securities are then sold to investors through a broker-dealer subsidiary.

The Group securitises assets otherwise originated in the ordinary course of business including corporate loans, consumer loans and residential and commercial mortgage loans. The Group also provides derivative transactions to securitisations sponsored by itself and third parties. These transactions carry counterparty credit risk and are included in the Group trading book.

Providing warehousing facilities collateralised by third party assets prior to securitisation or exit via whole-loan sale

The Group provides warehouse financing to third party loan originators and aggregators, including for agency eligible loans that can be securitised by the Federal National Mortgage Association ('Fannie Mae'), the Federal Home Loan Mortgage Corporation ('Freddie Mac'), or the Government National Mortgage Association ('Ginnie Mae') and for corporate loans that can be securitised via collateralised loan obligations (CLO).

Executor of securitisation trades including bond marketing and syndication

The Group transacts primarily as a principal in RMBS, ABS, CLO and CMBS with institutional investors and other broker-dealers. Agency backed residential and commercial mortgage securitisations include Credit Risk Transfer securities (Fannie Mae-sponsored CAS and Freddie Mac-sponsored STACR bonds). ABS securitisations include consumer ABS (e.g. credit card, student loan and auto) and non-traditional ABS (e.g. timeshares, wireless towers and whole business securitisations). Non-agency commercial mortgage securitisations include CMBS and commercial real estate collateralised loan obligations (CRE CLO). The Group makes secondary market in CLOs and acts as arranger on behalf of clients to structure and place arbitrage CLOs. In certain limited instances, the Group may also hold a portion of securitisations, which are required for risk retention purposes.

Purchaser of third party securitisations

The Group may purchase third party securitisations. The Group also funds on its own balance sheet securitisations similar to the ones funded via its sponsored conduits (see below). This can include simple, transparent and standardised (STS) securitisations from time to time as well as assets held in its liquidity buffer.

Sponsoring conduit vehicles

The Group acts as managing agent and administrative agent of three multi-seller asset backed commercial paper (ABCP) conduits, Sheffield Receivables Company, LLC (Sheffield) and Salisbury Receivables Company, LLC (Salisbury), and Sunderland Receivables S.A. (Sunderland) through which interests in securitisations of third party originated assets are funded via a variety of funding mechanics including the issuance of ABCP.

From a regulatory perspective, Barclays acts as a sponsor of Sheffield, Salisbury and Sunderland. In relation to such conduit activity, the Group provides all or a portion of the backstop liquidity to the commercial paper and, as appropriate, interest rate and foreign currency hedging facilities. The Group receives fees for the provision of these services.

Sheffield, Salisbury and Sunderland have a hold to collect business model and their assets are measured at amortised cost. It funds the assets through the issuance of ABCP. Note that Sheffield, Salisbury and Sunderland are consolidated for accounting but not for regulatory purposes.

Management of securitisation exposures (continued)

Funding transactions to generate collateral and term liquidity

Secured funding forms one of the key components of the Group's diversified funding sources providing access to the secured wholesale market and complementing the diversification of funding by maturity, currency and geography. The Group issues ABS and covered bonds secured primarily by customer loans and advances.

The Group currently manages four key on-balance sheet asset backed funding programmes to obtain term financing for mortgage loans and credit card receivables. These programmes also support retained issuances for the Group to access central bank liquidity and funding. The UK regulated covered bond and the residential mortgage master trust securitisation programmes both utilise assets originated by the Group's UK residential mortgage business. The third programme is a credit card master trust securitisation and uses receivables from the Group's UK credit card business. The fourth programme is a SEC registered securitisation programme backed by US domiciled credit card receivables. The Group also manages six key on-balance sheet securitisation programmes, which generate retained collateral which can be use to access central bank liquidity, collateralise internal exposures and raise funding. These programmes utilise corporate loans, commercial real estate loans and residential mortgage loans originated by Barclays.

Risk transfer transactions

The Group has entered into synthetic and cash securitisations of corporate and commercial loans (originated in the ordinary course of business), as well as consumer and residential loans, for the purposes of the transfer of credit risk to third party investors. The regulatory capital requirements of these transactions fall under the new securitisation Regulation (EU) 2017/2402 (the Securitisation Regulation) and Regulation (EU) 2017/2401 (amendments to CRR).

Securitisation risks, monitoring and hedging policies

Capital requirements against securitisation exposures are subject to a separate Securitisation Regulation framework to account for the particular characteristics of this asset class. For risk management purposes, however, a securitisation is aligned to the risk type to which it gives rise.

Credit risks

In a securitisation structure, the payments are dependent upon the performance of a single exposure or pool of exposures. As these underlying exposures are usually credit instruments, the performance of the securitisation is exposed to credit risk.

Securitisation exposures are subject to the Group Credit Risk policies and standards and business level procedures. This includes the requirement to review in detail each transaction at a minimum on an annual basis. As collateral risk is the primary driver the analysis places a particular focus on the underlying collateral performance, key risk drivers, services due diligence and cash flows, and the impact of these risks on the securitisation notes. The risk is addressed through the transaction structure and by setting an appropriate modelled tolerance level. Structural features incorporate wind-down triggers set against factors including, but not limited to, defaults/charge-offs, delinquencies, excess spread, dilution, payment rates and yield, all of which help to mitigate potential credit deterioration. Qualitative aspects such as counterparty risk and ancillary issues (operational and legal risk) are also considered. Changes to the credit risk profile of securitisation exposures will also be identified through ongoing transaction performance monitoring. In addition, periodic stress tests of the portfolio as part of ongoing risk management are conducted as well as in response to Group-wide or regulatory requests. The provision of implicit support to securitisations, including own originated securitisations, is not permitted under Barclays' internal standards and policies.

The principal committee responsible for the monitoring of the credit risk arising from securitisations is Wholesale Credit Risk Management Committee (WCRMC).

Market and liquidity risks

Market risk for securitised products is measured, controlled and limited through a suite of VaR, non-VAR and stress metrics in accordance with the Group's Market Risk Policies and Procedures. The key risks of securitisation structures are interest rate, credit, spread, prepayment and liquidity risk. Interest rate and spread risk are hedged with standard liquid interest rate instruments (including interest rate swaps, US Treasuries and US Treasury futures). The universe of hedging instruments for credit and prepayment risk is limited and relatively illiquid, resulting in basis risks. In providing warehouse financing, the Group is exposed to mark to market (if counterparty defaults on related margin call).

Hedging

Securitisation and re-securitisation exposures benefit from the relative seniority of the exposure in the capital structure. Due to lack of availability in the credit default swap market for individual asset backed securities, there are no material CDS hedge counterparties relating to the securitisation and re-securitisation population.

Operational risks

Operational risks are incurred in all of the Group's operations. In particular, all securitised (and re-securitised) assets are subject to a degree of risk associated with documentation and the collection of cash flows.

In providing warehouse financing, the Group incurs potential contingent operational risks related to representations and warranties should there be a need to foreclose on the line and it later be discovered that the underlying loans were not underwritten to agency agreed criteria. Such risks are mitigated by daily collateral margining and ready agency bids. Market risk is also mitigated by employing forward trades.

The Operational Risk Review Forum oversees the management of operational risks for the entire range of the Group's activities.

Management of securitisation exposures (continued)

Rating methodologies, ECAIs and RWA calculations

RWAs reported for securitised and re- securitised banking book and trading book assets at 31 December 2023 are calculated in line with CRR and UK PRA rules and guidance. The Group has approval to use, and therefore applies, the internal ratings based approach for the calculation of RWAs where appropriate, and the Standardised Approach elsewhere.

The Group employs eligible ratings issued by nominated External Credit Assessment Institutions (ECAIs) to risk weight its securitisation and re- securitisation exposure where their use is permitted. Ratings are considered eligible for use based on their conformance with the internal rating standard which is compliant with both CRR and European Credit Rating Agency regulation. The ECAIs nominated by the Group for this purpose are Standard & Poor's, Moody's, Fitch, DBRS and Kroll.

As required by CRR, the Group uses credit ratings issued by these ECAIs consistently for all exposures within the securitisation exposure class. For that reason, there is no systematic assignment of particular agencies to types of transactions within the securitisation exposure class.

For Sheffield, Salisbury and Sunderland the Internal Assessment Approach (IAA) framework mirrors the ECAI methodology, which also includes Moody's, Standard & Poor's and Fitch, who rate the Sheffield, Salisbury and Sunderland programmes. Under the IAA framework, the securitisation exposure must be internally rated, and the Group internal assessment process must meet certain requirements in order to map its own internal rating to an ECAI. Cash flow stress analysis on a securitisation structure is performed as prescribed by an ECAI methodology for the relevant ratings level, and is at least as conservative as the published methodology. Stress factors may include, among other factors, asset yields, principal payment rates, losses, delinquency rates and interest rates.

In determining an internal rating, collateral risks are the primary driver and are addressed through the transaction structure and modelled statistical confidence. The analysis reflects the Group's view on the transaction, including dilution risk, concentration and tenor limits, as well as qualitative aspects such as counterparty risk and important ancillary issues (operational and legal risks). The adequacy and integrity of the servicer's systems and processes for underwriting, collections policies and procedures are also reviewed. The Group conducts a full due diligence review of the servicer for each transaction. Each transaction is reviewed on, at least, an annual basis with a focus on the performance of underlying assets. The results of any due diligence review and the financial strength of the seller/servicer, are also factored into the analysis. Ratings of the transaction are reaffirmed with the most up to date ECAI methodologies. Any transaction which deviates from the current methodology is amended accordingly.

Summary of the accounting policies for securitisation activities

Certain Group-sponsored entities have issued debt securities or have entered into funding arrangements with lenders in order to finance specific assets. An entity is consolidated by the Group when the Group has control over the entity. The Group controls an entity if it has all of the three elements of control which are i) power over the entity; ii) exposure, or rights, to variable returns from its involvement with the entity; and iii) the ability to use its power over the entity to affect the amount of the Group returns. The consolidation treatment must be initially assessed at inception and is reassessed if facts and circumstances indicate that there are changes to one or more of the three elements of control.

The accounting measurement of assets initially recognised for the purpose of securitisation will depend on whether the securitisation entity is consolidated by the Group and whether the assets transferred to the securitisation entity meet the accounting derecognition test, meaning whether the transfer will be accounted for as a sale.

- Where assets on initial recognition are expected to be securitised by a transfer to an unconsolidated Group entity, the accounting will depend on whether the transfer is expected to meet the accounting derecognition test. Assets will remain on the Group balance sheet, and consideration received will be treated as financings, unless the following criteria apply:
  - substantially all the risks and rewards associated with the assets have been transferred, in which case, they are derecognised in full; or
  - if substantially all the risks and rewards have not been transferred or retained, the assets are derecognised in full if the transferee has the practical ability to sell the financial asset, otherwise the assets continue to be recognised only to the extent of the Group's continuing involvement
- Where assets acquired for securitisation are expected to be derecognised in full as a result of pending securitisation, those assets will typically be measured at fair value through the income statement
- Where a securitisation entity is consolidated by the Group or the assets fail to meet the derecognition test, such that the Group balance sheet includes the assets held for securitisation prior to and post transfer to the securitisation entity, the assets will generally be part of a 'Hold to Collect' business model, and if the contractual cash flows characteristics are solely payments of principal and interest (SPPI), the assets will be measured at amortised cost

Any financial support or contractual arrangements provided to unconsolidated entities, over securitised assets, would be recognised as a financial liability on balance sheet if it met the relevant IFRS 9 criteria, or a commitment under IAS 37, and have to be disclosed (see Note 34 in the Barclays PLC Annual Report 2023). Note, however, that the Group has a Significant Risk Transfer policy that does not allow for any support to be provided to any transactions that fall under the Significant Risk Transfer framework.

Assets may be transferred to a third party through a legal sale or an arrangement that meets the 'pass-through' criteria where the substance of the arrangement is principally that the Group is acting solely as a cash collection agent on behalf of the eventual recipients.

Where the transfer applies to a fully proportionate share of all or specifically identified cash flows, the relevant accounting treatment is applied to that proportion of the asset.

When the above criteria support the case that the securitisation should not be accounted for as financing, the transaction will result in sale treatment or partial continued recognition of the assets to the extent of the Group's continuing involvement in those assets. Gains are recognised to the extent that proceeds that can be measured using observable market data exceed the carrying value of assets derecognised.

Management of securitisation exposures (continued)

Any retained interests, which will consist of loans and/or securities depending on the nature of the transaction, are valued in accordance with the Group's Accounting Policies, as set out in the Barclays PLC Annual Report 2023. To the extent that these interests are measured at fair value, they will be included within the fair value disclosures in the financial statements in the Annual Report. As outlined in these disclosures, key valuation assumptions for retained interests of this nature will include spreads to discount rates, default and recovery rates and prepayment rates that may be observable or unobservable.

In a synthetic securitisation transaction, the underlying assets are not sold into the relevant special purpose entity (SPE). Instead, their performance is transferred into the vehicle through a synthetic instrument such as a CDS, a credit linked note or a financial guarantee. The accounting policies outlined above will apply to synthetic securitisations.

The following tables show the information required by CRR2 article 449 (d).

Securitisation Special Purpose Entities (SSPE) originated and sponsored by the institution[a,b]

Name of entity	Role of institution	Securitisation type
ARIMA MORTGAGES PLC	Originator	Traditional transactions
ASHFORD HOSPITALITY TRUST 2018-ASHF	Originator	Traditional transactions
ASHFORD HOSPITALITY TRUST 2018-KEYS	Originator	Traditional transactions
AVON FINANCE NO. 3	Originator	Traditional transactions
AVON FINANCE NO. 4	Originator	Traditional transactions
BARCLAYS MORTGAGE LOAN TRUST 2021-NQM1	Originator	Traditional transactions
BARCLAYS MORTGAGE LOAN TRUST 2022-INV1	Originator	Traditional transactions
BARCLAYS MORTGAGE LOAN TRUST 2022-NQM1	Originator	Traditional transactions
BARCLAYS MORTGAGE LOAN TRUST 2023-NQM1	Originator	Traditional transactions
BARCLAYS MORTGAGE LOAN TRUST 2023-NQM2	Originator	Traditional transactions
BARCLAYS MORTGAGE LOAN TRUST 2023-NQM3	Originator	Traditional transactions
BARCLAYS MORTGAGE TRUST 2021-NPL1	Originator	Traditional transactions
BARCLAYS MORTGAGE TRUST 2022-RPL1	Originator	Traditional transactions
BBCMS 2018-TALL	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2019-C5	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2020-C6	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2020-C7	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2021-C10	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2021-C12	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2022-C15	Originator	Traditional transactions
BBCMS MORTGAGE TRUST 2022-C16	Originator	Traditional transactions
BBCMS TRUST 2018-BXH	Originator	Traditional transactions
BBCMS TRUST 2018-CBM	Originator	Traditional transactions
BBCMS TRUST 2018-CHRS	Originator	Traditional transactions
BCAP LLC TRUST 2007-AA3	Originator	Traditional transactions
BENCHMARK 2023-V3 MORTGAGE TRUST	Originator	Traditional transactions
BSST 2021-SSCP MORTGAGE TRUST	Originator	Traditional transactions
BX COMMERCIAL MORTGAGE TRUST 2020-VIV2	Originator	Traditional transactions
BX COMMERCIAL MORTGAGE TRUST 2020-VIV3	Originator	Traditional transactions
BX COMMERCIAL MORTGAGE TRUST 2020-VIV4	Originator	Traditional transactions
BX COMMERCIAL MORTGAGE TRUST 2020-VIVA	Originator	Traditional transactions
BX TRUST 2019-CALM	Originator	Traditional transactions
BX TRUST 2021-LBA	Originator	Traditional transactions
BX TRUST 2021-NWM	Originator	Traditional transactions
BXHPP TRUST 2021-FILM	Originator	Traditional transactions
CAMB COMMERCIAL MORTGAGE TRUST 2019-LIFE	Originator	Traditional transactions
CITIGROUP COMMERCIAL MORTGAGE TRUST 2017-P8	Originator	Traditional transactions
COLEM 2022-HLNE MORTGAGE TRUST	Originator	Traditional transactions
CORE 2019-CORE MORTGAGE TRUST	Originator	Traditional transactions
CURZON MORTGAGES	Originator	Traditional transactions
DELPHI SECURITIES NO 1 DAC	Originator	Traditional transactions
DUBLIN BAY SECURITIES 2018-MA1	Originator	Traditional transactions
DURHAM MORTGAGES A (REFINANCING)	Originator	Traditional transactions
DURHAM MORTGAGES B (REFINANCING)	Originator	Traditional transactions
GEMGARTO 2023-1 PLC	Originator	Traditional transactions
GLENBEIGH 1 ISSUER 2021-1 DESIGNATED ACTIVITY COMPANY	Originator	Traditional transactions
HARBEN FINANCE 2017-1 REFINANCE	Originator	Traditional transactions
HARBOUR NO.1	Originator	Traditional transactions
INTOWN 2022-STAY MORTGAGE TRUST	Originator	Traditional transactions
JAMESTOWN RESIDENTIAL 2021-1	Originator	Traditional transactions
KENTMERE NO. 1	Originator	Traditional transactions
KENTMERE NO. 2	Originator	Traditional transactions

Management of securitisation exposures (continued)

Name of entity	Role of institution	Securitisation type
KINSALE SECURITIES RMBS DAC	Originator	Traditional transactions
LAST MILE LOGISTICS PAN EURO FINANCE DAC	Originator	Traditional transactions
MAD COMMERCIAL MORTGAGE TRUST 2019-650M	Originator	Traditional transactions
MED TRUST 2021-MDLN	Originator	Traditional transactions
MFTII 2019-B3B4 MORTGAGE TRUST	Originator	Traditional transactions
MKT 2020-525M MORTGAGE TRUST	Originator	Traditional transactions
MONAGHAN SECURITIES RMBS DESIGNATED ACTIVITY COMPANY	Originator	Traditional transactions
NEWPORT SECURITIES	Originator	Traditional transactions
NYT 2019-NYT MORTGAGE TRUST	Originator	Traditional transactions
PAVILLION MORTGAGES 2021-1 PLC	Originator	Traditional transactions
PAVILLION POINT OF SALE 2021-1A	Originator	Traditional transactions
RIPON MORTGAGES REFINANCE	Originator	Traditional transactions
ROSSBEIGH 1 WAREHOUSE DAC	Originator	Traditional transactions
ROUNDSTONE SECURITIES NO. 1	Originator	Traditional transactions
SUMMERHILL RESIDENTIAL 2021-1	Originator	Traditional transactions
WELLS FARGO COMMERCIAL MORTGAGE TRUST 2017-C38	Originator	Traditional transactions
WELLS FARGO COMMERCIAL MORTGAGE TRUST 2017-C40	Originator	Traditional transactions
WELLS FARGO COMMERCIAL MORTGAGE TRUST 2017-C42	Originator	Traditional transactions
WELLS FARGO COMMERCIAL MORTGAGE TRUST 2018-C43	Originator	Traditional transactions
COLONNADE GLOBAL 2017-3A SARL - 2017-3A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2017-3A SARL - 2017-3A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2017-4 SARL - 2017-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2017-4 SARL - 2017-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-1 SARL - 2018-1-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-1 SARL - 2018-1-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-1X SARL - 2018-1X-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-1X SARL - 2018-1X-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-2 SARL - 2018-2-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-2 SARL - 2018-2-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-3X SARL - 2018-3X-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-3X SARL - 2018-3X-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-4 SARL - 2018-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-4 SARL - 2018-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-5 SARL - 2018-5-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2018-5 SARL - 2018-5-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-1A - 2019-1A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-1A - 2019-1A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-1B - 2019-1B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-1B - 2019-1B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-2A - 2019-2A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-2A - 2019-2A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-2B - 2019-2B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-2B - 2019-2B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-3A - 2019-3A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-3A - 2019-3A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-3B - 2019-3B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-3B - 2019-3B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-4 - 2019-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2019-4 - 2019-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-1 - 2020-1-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-1 - 2020-1-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-2A - 2020-2A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-2A - 2020-2A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-2B - 2020-2B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-2B - 2020-2B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-3 - 2020-3-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-3 - 2020-3-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-4 - 2020-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-4 - 2020-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-5 - 2020-5-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2020-5 - 2020-5-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-1 - 2021-1-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-1 - 2021-1-IB	Originator	Synthetic transactions

Management of securitisation exposures (continued)

Name of entity	Role of institution	Securitisation type
COLONNADE GLOBAL 2021-10 - 2021-10-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-10 - 2021-10-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-2A - 2021-2A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-2A - 2021-2A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-2B - 2021-2B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-2B - 2021-2B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-3 - 2021-3-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-3 - 2021-3-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-4 - 2021-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-4 - 2021-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-5 - 2021-5-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-5 - 2021-5-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-6A - 2021-6A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-6A - 2021-6A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-6B - 2021-6B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-6B - 2021-6B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-7 - 2021-7-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-7 - 2021-7-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-8 - 2021-8-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-8 - 2021-8-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-9 - 2021-9-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2021-9 - 2021-9-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-1 - 2022-1-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-1 - 2022-1-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-2 - 2022-2-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-2 - 2022-2-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-3 - 2022-3-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-3 - 2022-3-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-3B - 2022-3B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-3B - 2022-3B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-4 - 2022-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-4 - 2022-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-5A - 2022-5A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-5A - 2022-5A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-5B - 2022-5B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-5B - 2022-5B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-6 - 2022-6-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2022-6 - 2022-6-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-1 - 2023-1-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-1 - 2023-1-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-2A - 2023-2A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-2A - 2023-2A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-2B - 2023-2B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-2B - 2023-2B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-3 - 2023-3-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-3 - 2023-3-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-4 - 2023-4-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-4 - 2023-4-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-5 - 2023-5-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-5 - 2023-5-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-6 - 2023-6-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-6 - 2023-6-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-7 - 2023-7-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-7 - 2023-7-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-8A - 2023-8A-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-8A - 2023-8A-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-8B - 2023-8B-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-8B - 2023-8B-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-8C - 2023-8C-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-8C - 2023-8C-IB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-9 - 2023-9-CB	Originator	Synthetic transactions
COLONNADE GLOBAL 2023-9 - 2023-9-IB	Originator	Synthetic transactions
TUNGSTEN 2020-1 - 2020-1	Originator	Synthetic transactions

Management of securitisation exposures (continued)

Name of entity	Role of institution	Securitisation type
TUNGSTEN 2021-1 - 2021-1	Originator	Synthetic transactions
MIRAVET SARL - COMPARTMENT 2019-1	Sponsor	Traditional transactions
MIRAVET SARL - COMPARTMENT 2020-1	Sponsor	Traditional transactions
SALISBURY RECEIVABLES CORPORATION LLC	Sponsor	ABCP programme
SHEFFIELD RECEIVABLES CORPORATION LLC	Sponsor	ABCP programme
SUNDERLAND RECEIVABLES CORPORATION LLC	Sponsor	ABCP programme

Notes

a The securitisation list disclosed includes deals originated by Barclays that are SRT achieved and where horizontal tranches are held and risk-weighted per securitisation rules.
b Deals originated by Barclays with no holdings and SRT failed deals are not part of the disclosure.

Management of treasury and capital risk

This section provides an overview of the management of liquidity risk, capital risk and interest rate risk in the banking book.

- **Liquidity risk, with a focus on how it is managed so that the firm has the appropriate amount, tenor and composition of funding and liquidity to meet all its contractual and contingent funding obligations at all times, is discussed on pages 172 to 174**
- **Capital risk, including how the risks of insufficient capital and leverage ratios and pension risk are managed, is discussed on pages 175 to 177**
- **The management of Interest rate risk in the banking book is discussed on pages 177 to 178**

Management of treasury and capital risk

Treasury and capital risk management

This comprises:

Liquidity risk: The risk that the Group is unable to meet its contractual or contingent obligations or that it does not have the appropriate amount, tenor and composition of funding and liquidity to support its assets.

Capital risk: The risk that the Group has an insufficient level or composition of capital to support its normal business activities and to meet its regulatory capital requirements under normal operating environments and stressed conditions (both actual and as defined for internal planning or regulatory testing purposes). This also includes the risk from the Group's pension plans.

Interest rate risk in the banking book: The risk that the Group is exposed to capital or income volatility because of a mismatch between the interest rate exposures of its (non-traded) assets and liabilities.

Overview

The Treasury function manages treasury and capital risk exposure on a day-to-day basis with the Group Treasury Committee acting as the principal management body. The Treasury and Capital Risk function is responsible for oversight and provide insight into key capital, liquidity, interest rate risk in the banking book (IRRBB) and pension risk management activities.

Organisation and structure

Barclays PLC Board Risk Committee

- Reviews and recommends Barclays Group's risk appetite for treasury and capital risk to the Barclays PLC Board for approval
- Reviews any material issues impacting treasury and capital risk
- Approves the ICAAP and ILAAP, via delegated authority of the Board

Barclays Group Treasury Committee

- Monitors and manages treasury and capital risk in line with objective and risk appetite of the Group
- Guides development of the Group recovery and resolution planning for capital, funding and liquidity
- Reviews non-traded market risk positions against risk appetite and limits

Barclays Group Risk Committee

- Reviews and recommends treasury and capital risk appetite to the Barclays PLC Board Risk Committee
- Escalates material issues impacting treasury and capital risk to the Barclays PLC Board Risk Committee
- Reviews and recommends the ICAAP and ILAAP to the Barclays PLC Board Risk Committee for approval

Barclays Bank PLC Treasury Committee/Barclays Bank UK Group Asset and Liability Committees (ALCOs)

- Manages the balance sheet of the Barclays Bank Group and the Barclays Bank UK Group
- Monitors the performance in managing of treasury and capital risk within agreed first line of defence targets and limits
- Oversees the risks managed by the Treasury function of key legal entities through their funding, investment and hedging activities

Barclays Group Treasury and Capital Risk Committee

- Recommends treasury and capital risk appetite to the Barclays Group Risk Committee and Barclays PLC Board Risk Committee
- Monitors the treasury and capital risk profile
- Escalates material issues impacting treasury and capital risk to the Barclays Group Risk Committee and Barclays PLC Board Risk Committee

Management of treasury and capital risk (continued)

Liquidity risk management

Overview

The efficient management of liquidity is essential to the Group in order to retain the confidence of the financial markets and maintain the sustainability of the business. Treasury and Capital Risk has established a framework to manage all liquidity risk exposures under both normal and stressed conditions. The framework is designed to maintain liquidity resources that are sufficient in amount, quality and funding tenor profile to remain within the liquidity risk appetite as expressed by the Barclays PLC Board. The liquidity risk appetite is monitored against both internal and regulatory liquidity metrics.

Organisation, roles and responsibilities

Treasury has the primary responsibility for managing liquidity risk within the set risk appetite. Both Risk and Treasury contribute to the production of the Internal Liquidity Adequacy Assessment Process (ILAAP). The Treasury and Capital Risk function is responsible for the management and governance of the liquidity risk mandate, as defined by the Board.

The framework established by Treasury and Capital Risk is designed to deliver the appropriate term and structure of funding, consistent with the liquidity risk appetite set by the Board. The control framework incorporates a range of ongoing business management tools to monitor, limit and stress test the Group's balance sheet, contingent liabilities and the recovery plan. Limit setting and transfer pricing are tools designed to control the level of liquidity risk taken and drive the appropriate mix of funds. Adherence to limits reduces the likelihood that a liquidity stress event could lead to an inability to meet Group's obligations as they fall due.

The Board approves the Group funding plan, internal stress tests, regulatory stress test results, recovery plan and liquidity risk appetite. The Group Treasury Committee is responsible for monitoring and managing liquidity risk in line with the Group's funding management objectives, funding plan and risk appetite. The Treasury and Capital Risk Committee monitors and reviews the liquidity risk profile and control environment, providing second line oversight of the management of liquidity risk. The BRC reviews the risk profile, and reviews at least annually the liquidity risk appetite and the impact of stress scenarios on the Group funding plan/forecast in order to agree the Group's projected funding abilities.

The Group maintains a range of management actions for use in a liquidity stress which are documented in the Group Recovery Plan. Since the precise nature of any stress event cannot be known in advance, the actions are designed to be flexible to the nature and severity of the stress event and provide a menu of options that can be drawn upon as required. The Group Recovery Plan also contains more severe recovery options to generate additional liquidity in order to facilitate recovery during a severe stress. Any stress event would be regularly monitored and reviewed using key management information by Treasury, Risk and business representatives.

Ongoing management business	Early signs / Mild stress	Severe stress	Recovery
• Stress testing and planning • Liquidity limits • Early warning indicators	• Monitoring and review • Management actions requiring minimal business rationalisation	• Monitoring and review • Management actions with limited impact on franchise	• Activate appropriate recovery options to restore the capital and/or liquidity position of the Group

Risk Appetite and planning

Barclays has established an Internal Liquidity Stress Test (ILST) to quantify the level of liquidity risk the Group is exposed to in pursuit of its business objectives and ensuring compliance with its regulatory obligations. The ILST forms part of the Liquidity Risk Appetite (LRA).

The key expression of the liquidity risk is through stress tests. It is measured with reference to the liquidity pool compared to anticipated net stressed outflows for each of five stress scenarios. Barclays has defined both internal short term and long term ILST stress testing metrics.

The Group ILST stress test is approved by the Board. The ILST is reviewed on a continuous basis and is subject to formal review at least annually as part of the ILAAP.

Statement of LRA: For 2023, the Barclays PLC Board has approved that Barclays PLC expresses its liquidity risk appetite based on the constraints set by its internal and regulatory-prescribed stress tests, to ensure that it maintains sufficient liquidity resources and stable sources of funding under normal and stressed conditions:

- >£0 at low-point across ILST stress horizons
- LCR 30 days minimum ratio 100% (Pillar 2 basis)
- Net Stable Funding Ratio (NSFR) minimum ratio 100%

The Group ILST and LCR outflows are used to determine the minimum size of Group Liquidity Pool. The Liquidity Pool represents those resources immediately available to meet outflows in a liquidity stress. In addition to holding a liquidity pool against stressed outflows, The Group reviews available management actions that could be used to raise additional liquidity. Management actions are assessed to determine their suitability, effectiveness and time to delivery.

Management of treasury and capital risk (continued)

Liquidity limits

Barclays manages limits on a variety of on- and off-balance sheet exposures, a sample of which is shown in the table below. These limits serve to control the overall extent and composition of liquidity risk taken by managing exposure to each risk driver.

Examples of liquidity limits			
Internal Liquidity Stress Test ('ILST')	Liquidity Coverage Ratio	Currency Risk Limits	Net Stable Funding Ratio ('NSFR')
Prime Brokerage Limits	Gross Repo Limits	Concentration Limits	Secured Stress Limits

Early warning indicators

Barclays Treasury monitor a range of market indicators for early signs of liquidity risk. Both market indicators and Barclays specific indicators are tracked, a sample of which is shown in the table below. These are designed to immediately identify the emergence of increased liquidity risk in order to maximise the time available to execute appropriate mitigating management actions. Early Warning Indicators (EWIs) are used as part of the assessment of whether to invoke the Group Recovery Plan, which provides a framework for how a liquidity stress would be managed.

Examples of early warning indicators		
Reduction in 'sticky' deposits	Deterioration in stress test surplus	Rising funding costs
Widening CDS Spreads	Change in maturity profile	Stress in financial markets

Recovery & resolution planning

Barclays maintains a Group Recovery Plan (GRP) designed to provide a framework to effectively manage a severe financial stress. The GRP is proportionate to the nature, scale and complexity of the business and is tested on a regular basis to ensure it is operationally robust. The GRP details the escalation and invocation process for the plan, including integration with i) BAU monitoring of capital and liquidity EWIs to detect signs of approaching financial stress; ii) existing processes within Barclays Treasury and Risk to respond to mild/ moderate stress; and iii) the governance process for executing recovery options. The GRP is legal entity aware and includes considerations for Barclays Bank UK Group and Barclays Bank PLC including entity-specific EWIs, recovery options, recovery strategies and governance arrangements,

Significant financial stress will be managed holistically by Barclays, with appropriate senior management coming together to deal with stress, and key entities/branches remaining involved and able to manage stress locally and continuing to meet local regulatory requirements. The financial crisis process is centred around a hierarchy based on the structure of the Group, so that stress is managed both locally and at the highest level at which it manifests. The procedures for Barclays Group, Barclays Bank UK Group and Barclays Bank PLC include the convening of the Group-wide Capital and Liquidity Crisis Management Team (CLCMT) and the Group Executive Committee (ExCo) as Barclays' most senior crisis leadership committee, the use of a crisis playbook of detailed management information and a range of management actions that can be taken to restore Barclays' capital and/or liquidity position. This coordinated process provides a more consistent and therefore more effective crisis response.

The GRP includes a range of recovery options to respond to financial stresses of varying severity and includes detailed information on financial and non-financial impacts of exercising the recovery options. The GRP is updated annually and fully embedded within Barclays' existing processes.

Liquidity risk governance

The Treasury function operates within the bounds of the framework established by Treasury and Capital Risk. The framework describes liquidity risk management processes, associated policies, controls and how the Group have implemented controls. This framework is used to manage liquidity risk within the Liquidity Risk Appetite. The framework is reviewed annually and supported by the internal architecture used to record and measure group wide liquidity metrics.

The Board sets the Liquidity Risk Appetite (LRA) based on the Internal Liquidity Stress Test (ILST) and external regulatory requirements, namely the LCR and the NSFR . The Liquidity Risk Appetite stress test quantifies the level of liquidity risk the Group is exposed to in pursuit of its business objectives and ensuring compliance with its regulatory obligations. The approved Liquidity Risk Appetite is implemented in line with the Enterprise Risk Management Framework.

Management of treasury and capital risk (continued)

Capital risk management

Overview

Capital risk is managed through ongoing monitoring and management of the capital and leverage position, regular stress testing and a robust capital governance framework. The objectives of the framework are to maintain adequate capital for the Group and legal entities to withstand the impact of the risks that may arise under normal and stressed conditions, and maintain adequate capital to cover current and forecast business needs and associated risks to provide a viable and sustainable business offering. The Group aims to prudently manage its overall leverage position (including risk of excessive leverage) by utilising plausible stress scenarios, reviewing and deploying management actions in response to deteriorating economic and commercial positions. In order to manage contingent leverage risk, the Group considers the context from which the business consumption arises, the impact of client utilisation on leverage and the available actions to manage.

Organisation, roles and responsibilities

Treasury has the primary responsibility for managing and monitoring capital. The Treasury and Capital Risk function provides oversight of capital risk. Production of the Barclays PLC Internal Capital Adequacy Assessment Process (ICAAP) is the responsibility of Treasury.

Capital risk management is underpinned by a control framework and policy. The capital management strategy, outlined in the Group and legal entity capital plans, is developed in alignment with the control framework and policy for capital risk, and is implemented consistently in order to deliver on the Group's objectives.

The Board approves the Group capital plan, internal stress tests and results of regulatory stress tests, and the Group recovery plan. The Group Treasury Committee is responsible for monitoring and managing capital risk in line with the Group's capital management objectives, capital plan and risk frameworks. The Treasury and Capital Risk Committee monitors and reviews the capital risk profile and control environment, providing second line oversight of the management of capital risk. The BRC reviews the risk profile, and annually reviews risk appetite and the impact of stress scenarios on the Group capital plan/forecast in order to agree the Group's projected capital adequacy.

Local management assures compliance with an entity's minimum regulatory capital requirements by reporting to local Asset and Liability Committees (ALCOs) with oversight by the Group Treasury Committee, as required. In 2023, Barclays complied with all regulatory minimum capital requirements. Contingent leverage risk is managed by; i) setting comprehensive leverage (and RWA) targets for each business as part of the Treasury capital management process, taking into account adherence to early warning indicators and maintain a healthy leverage ratio and; ii) Monitoring execution of actions taken to course-correct as necessary.

Capital risk management strategy

Barclays Group's capital management strategy is driven by the strategic aims of Barclays Group and the risk appetite set by the Board. Barclays Group's objectives are achieved through well embedded capital management practices.

Capital planning and allocation

Barclays Group assesses its capital requirements on multiple bases, with Barclays Group's capital plan set in consideration of Barclays Group's risk profile and appetite, strategic and performance objectives, regulatory requirements, international financial reporting standards (including IFRS 9), and market and internal factors, including the results of stress testing. The capital plan is managed on a top-down and bottom-up basis through both short-term and medium-term financial planning cycles, and is developed with the objective that Barclays Group maintains an adequate level of capital in line with internal and regulatory requirements. The planning process captures the impact of IFRS 9 to the capital plan, both including and excluding the impacts of transitional regulatory adjustments.

The PRA determines the regulatory capital requirements for the consolidated Barclays Group. Under these regulatory frameworks, capital requirements are set in consideration of the level of risk that Barclays Group is exposed to and the factors described above, and are measured through both risk-based Risk Weighted Assets (RWAs) and leverage-based metrics. An internal assessment of Barclays Group's capital adequacy is undertaken through the ICAAP and is used to inform the capital requirements of Barclays Group.

Barclays Group expects to meet the minimum requirements for capital and leverage at all times and also holds an internal buffer sized according to Barclays Group's assessment of capital risk.

Through the capital planning process, capital allocations are approved by Barclays Group Executive committee, taking into consideration the risk appetite and strategic aims of Barclays Group. Regulated legal entities are, at a minimum, capitalised to meet their current and forecast regulatory and business requirements.

Monitoring and reporting

Capital is managed and monitored to maintain that Barclays' capital plans remain appropriate and that risks to the plans are considered. Limits are set by Risk to control the level of capital risk within Barclays Group. Treasury is responsible for complying with these limits as the first line of defence for the management of capital risk.

Limits are monitored through appropriately governed forums in the first and second line of defence.

To support compliance with risk limits, Treasury monitor capital risks against firm-specific and macroeconomic early warning indicators and report on these to the Treasury Committee and entity ALCOs. This enables a consistent and objective approach to monitoring the capital outlook against the capital plan, and supports the early identification when outlooks deteriorate.

Capital management information is readily available to support Senior Management's strategic and day-to-day business decision making.

Management of treasury and capital risk (continued)

Stress testing and risk mitigation

Internal group-wide stress testing is undertaken to quantify and understand the impact of sensitivities on the capital plan and capital ratios arising from stressed macroeconomic conditions. Recent economic, market and peer institution stresses are used to inform the assumptions developed for internal stress tests and to assess the effectiveness of mitigation strategies.

Barclays Group also undertakes stress tests prescribed by the BoE and legal entities undertake stress tests prescribed by their local regulators. These stress tests inform decisions on the size and quality of the internal capital buffer required and the results are incorporated into Barclays Group capital plan to maintain adequacy of capital under normal and severe, but plausible stressed conditions.

Actions are identified as part of the stress tests that can be taken to mitigate the risks that may arise in the event of material adverse changes in the current economic and business outlook. As an additional layer of protection, Barclays Group Recovery Plan defines the actions and implementation strategies available to Barclays Group to increase or preserve capital resources in the situation that a stress occurs that is more severe than anticipated.

Capitalisation of legal entities

Barclays as a group comprises legal entities across multiple jurisdictions. Barclays Group and regulated legal entities are subject to prudential requirements from the PRA and/or local regulators. Sufficient capital needs to be available to meet these requirements both at a consolidated Group and individual legal entity level.

Where aggregate requirements for individual entities in Barclays Group are higher than the consolidated requirement, Barclays Group may use debt or capital other than CET1 to meet these incremental requirements (so called 'double leverage'). There are regulatory and rating agency expectations that constrain the amount of double leverage that can be used. This might increase the overall level of capital Barclays Group is required to hold.

The capitalisation of legal entities is reviewed annually as part of the capital planning process and monitored on an ongoing basis.

Transferability of capital

Surplus capital held in Group entities is required to be repatriated to the immediate parent in the form of dividends and/or capital repatriation, subject to local regulatory requirements, exchange controls and tax implications. This approach provides optimal flexibility on the re-deployment of capital across legal entities. Capital is managed at Barclays Group as a whole as well as for its operating subsidiaries to allow fungibility and redeployment of capital while meeting relevant internal and regulatory targets at entity levels.

Foreign exchange risk

Barclays Group has capital resources and risk weighted assets denominated in foreign currencies. Changes in foreign exchange rates result in changes in the Sterling equivalent value of foreign currency denominated capital resources and RWAs. As a result, Barclays Group's CET1 ratio is sensitive to foreign currency movements.

Barclays Group seeks to minimise the volatility of the CET1 ratio caused by foreign exchange rate movements by ensuring that the CET1 capital movements broadly match the revaluation of Barclays Group's foreign currency RWA exposures. This is achieved by seeking to align the ratio of CET1 sensitive to foreign exchange rate movements to foreign currency RWAs with Barclays Group CET1 ratio.

Pension risk

The Group maintains a number of defined benefit pension schemes for past and current employees. The ability of schemes to meet pension payments is achieved with investments and contributions.

Pension risk arises because the market value of pension fund assets might decline; investment returns might reduce; or the estimated value of pension liabilities might increase. The Group monitors the pension risks arising from its defined benefit pension schemes and works with Trustees to address shortfalls. In these circumstances, the Group could be required or might choose to make extra contributions to the pension fund. The Group's main defined benefit scheme was closed to new entrants in 2012.

Management of pension risk

Many of the Group's defined benefit pension funds are established as trusts in order to keep the fund's assets separate from the sponsor (Barclays). As such the Trustees are responsible for:

- the investment strategy including asset allocation and performance
- assessing the level of technical provisions required
- ensuring any minimum funding objectives are met
- complying with local legislation

The legal structure of Barclays' defined benefit pension funds and the role of the Trustees mean that pension risk can't be directly controlled by the Group. However, Barclays must ensure that the Risk Appetite at Group and entity levels is calibrated to accommodate exposure to pension risk.

Pension Forums

The Pension Executive Board (PEB) has accountability for the effective operation of pensions across the Group. It is the most senior executive body for pensions in Barclays.

The PEB is not created or mandated under the ERMF. However, this forum provides Risk the opportunity to discuss and comment on pension risk in a wider context with other relevant stakeholders from HR, Legal, Treasury and Finance.

Management of treasury and capital risk (continued)

Key pension risk controls and governance include:

- annual review, challenge and proposal of the IAS19 market-driven assumptions used for the calculation of pension liabilities used in Barclays' disclosures
- representation and input at key pension forums
- input into the Group's ICAAP for pension risk
- input into the Group's strategic planning and stress test exercises
- provision of independent oversight of the pension risk profiles from the Group's perspective
- coordination of responses to regulatory initiatives, developments and proposals on pensions, which may include inputs from material overseas schemes

Interest rate risk in the banking book management (IRRBB)

Overview

Interest rate risk in the banking book is primarily driven by customer deposit taking and lending activities, investments in the liquid asset portfolio and funding activities. As per the Group's policy to remain within the defined risk appetite, hedging strategies are executed to mitigate the various IRRBB risks that result from these activities.

However, the Group remains susceptible to interest rate risk and other non-traded market risks from the following key sources:

- **Interest rate and repricing risk:** the risk of an adverse impact from a change in interest rates, differences in the timing of interest rate changes between assets and liabilities, and other constraints on interest rate changes as per product terms and conditions.
- **Customer behavioural risk:** the risk of an adverse impact from the discretion that customers and counterparties may have in respect of being able to vary their contractual obligations with Barclays. This risk is often referred to by industry regulators as 'embedded option risk'.
- **Investment risks in the liquid asset portfolio:** the risk that the fair value of assets held in the liquid asset portfolio and associated risk management portfolios could be adversely impacted by market volatility, creating volatility in capital directly.

Organisation, roles and responsibilities

The entity ALCOs and /or treasury committees, together with the Group Treasury Committee, are responsible for monitoring and managing IRRBB risk in line with the Group's management objectives and risk frameworks. The Group Risk Committee (GRC) and Treasury and Capital Risk Committee monitors and reviews the IRRBB risk profile and control environment, providing second line oversight of the management of IRRBB. The Board Risk Committee (BRC) reviews the interest rate risk profile, including annual review of the risk appetite and the impact of stress scenarios on the interest rate risk of the Group's banking books.

In addition, the Group's ALM and Investment Risks Policy sets out the processes and key controls required to identify all IRRBB risks arising from banking book operations, to monitor the risk exposures via a set of metrics with a frequency in line with the risk management horizon, and to manage these risks within agreed risk appetite and limits.

Management of IRRBB

Barclays executes hedging strategies to manage IRRBB and maintain it within the agreed risk appetite, whilst actively managing the trade-off between return and associated risks in liquid asset portfolio. Therefore, the primary control for IRRBB is calculating the risk metrics described in the table below and monitoring risk exposure vs. defined limits. Limits are set at an aggregate business level and then cascaded down.

These measures of risk are typically dependent on an assumption of expected customer behaviour, To the extent that actual behaviour may vary from expectation this variation is measured using a supplementary set of behavioural stress measures.

Summary of measures for non-traded market risk

Measure	Definition
Net Interest Income (NII)	A measure of the potential change in Net Interest Income (NII) due to an adverse interest rate movement over a predefined time horizon.
Economic value of equity (EVE)	A measure of the potential change in the present value of expected future cash flows due to an adverse interest rate movement, based on the existing balance sheet expected run-off profile.
Value at risk (VaR)	A measure of the potential loss of value arising from unfavourable market movements at a specific confidence level, if current positions were to be held unchanged for the predefined holding period.
Stress Loss	A measure of the potential loss from an adverse shock to market variables

Net Interest Income (NII)

NII measures the sensitivity of net interest income over a one-year period. It is calculated as the difference between the estimated income using the expected rate forecast and the lowest estimated income following a parallel increase or decrease in interest rates on a pre-tax basis.

The main model assumptions are:

- Interest rate levels are shocked in line with those prescribed by the PRA Rulebook, in addition to internally-defined shocks..The balance sheet is primarily kept at the current level with no assumed growth, and run-off balances are reinvested on a like-for-like basis to maintain a constant balance sheet. A number of temporary non-core funding balances are not reinvested. Contractual positions are adjusted for an assumed behavioural profile, to align with the expected product life-cycle

Management of treasury and capital risk (continued)

- Forecast net interest income accounts for expected pricing changes to managed rate products both in the base scenario and shocked scenarios, including the impact of either implied product rate floors or explicit product rate floors in line with product terms and conditions. Further management actions in response to interest rate shocks are excluded
- NII sensitivity is calculated on a monthly basis for the entire banking book, including the investments in liquid asset portfolios. The metric provides a measure of how interest rate risk may impact the Group's earnings, providing a simple comparison between risk and returns. As NII provides a 12-month view of the impact of interest rate changes on modelled earnings, Barclays also monitors economic value metrics to complement the view as this captures the IRRBB impact of risk exposures beyond one year. However, this measure should not be interpreted as a projection of the bank's future expected earnings in each interest rate scenario

Economic Value of Equity (EVE)

EVE calculates the change in the present value of the Group's expected future cash-flows across the six prescribed scenarios in the PRA Rulebook. Note that the EVE calculation measures sensitivity in terms of present value, while NII measures income sensitivity, and as such are complementary.

The EVE measure is calculated on a monthly basis and is applied to the full life of transactions and hedges allowing the risk over the whole life of positions to be considered. It does not capture the impact of business growth or management actions, and is based on the expected balance sheet run-off profile.

The main model assumptions are:

- All cash flows are included within the EVE scenarios, with commercial margins excluded and discounted at the relevant risk-free interest rate. Market rate floors are accounted for in line with regulatory guidance, with market rates floored at -100bps and increasing by 5bps linearly per annum from the reporting date
- The Group's equity instruments without a call date are excluded from the calculation. Deposits which have no defined maturity date have been profiled according to their relevant behavioural maturity which also drives the Group's hedging strategy. The profiling of non-maturing deposits in shock scenarios is aligned to the baseline scenario as the baseline scenario is sufficiently prudent to mitigate expected customer behaviours in shocked scenarios
- Fixed-rate customer balances where customers have the option to adjust payments are also reported including expected customer behaviours, with the baseline Conditional Prepayment Rate adjusted by 20% in shocked scenarios
- EVE is calculated by currency and aggregated accounting for 50% of the benefit of any positive change in EVE

Management of treasury and capital risk (continued)

Value at Risk (VaR)

In addition to the above measures, VaR is also used for IRRBB management, although primarily focused on items held at fair value. VaR is an estimate of the potential loss arising from unfavourable market movements if the current position were to be held unchanged for a set period. For internal market risk management purposes, a historical simulation methodology is used with a one-year equally weighted historical period, at a 95% confidence level.

Internal risk management daily VaR is used to measure residual interest and foreign exchange risks within certain banking book portfolios held at fair value. Quarterly scaled VaR is used to measure risk for items in the liquid asset portfolio held at fair value.

VaR is calculated on a daily basis and exposure is reported versus defined limits.

Stress Loss

Securities in the buffer are subject to several market risk stresses designed to estimate potential losses in various scenarios. This includes, but is not limited to, an annual internal stress test, regulatory stress tests as well as various ad hoc exploratory exercises.

ICAAP information

The purpose of the capital adequacy assessment is to confirm that the Group is adequately capitalised to support its business strategy against the risks the bank faces and the performance constraints set by the Board.

The capital adequacy is assessed by verifying the following conditions:

- Group meets the capital regulatory requirements;
- The Internal Stress Testing (IST) passes the risk appetite constraints set by the Board; and
- Group holds sufficient loss absorbing capital to cover economic risks

This is supplemented by benchmarking of capital metrics to peer banks and considering rating agency assessments.

Management of operational risk

The sources of operational risks, and how those risks are managed, are detailed in this section.

- **The types of risks that are classified as operational risks are described on pages 181 and 182**
- **Governance, management and measurement techniques are covered on pages 182 and 183**

Management of operational risk

Operational risk

The risk of loss to the Group from inadequate or failed processes or systems, human factors or due to external events (for example fraud) where the root cause is not due to credit or market risks.

Overview

The management of operational risk has three key objectives:

- deliver an operational risk capability owned and used by business leaders
- provide the frameworks, policies and standards to enable management to meet their risk management responsibilities while the second line of defence provides robust, independent, and effective oversight and challenge
- deliver a consistent and aggregated measurement of operational risk which will provide clear and relevant insights, so that the right management actions can be taken to keep the operational risk profile consistent with the Group's strategy, the stated risk appetite and stakeholder needs

The Group operates within a strong system of internal controls which enables business to be transacted and risk taken without exposing the Group to unacceptable potential losses or reputational damages.

Organisation and structure

Barclays PLC Board Risk Committee
- Approves operational risk framework
- Oversees operational risk capital
- Recommends and monitors operational risk appetite and the residual risk position, supported by feedback from the Barclays PLC Board Audit Committee/Chief of Controls Officer

Barclays PLC Board Audit Committee
- Oversees the operating effectiveness of the control environment
- Oversees remediation of control issues
- Gives feedback to the Barclays PLC Board Risk Committee where concerns exist over the impact on residual risk through either the design or operating effectiveness of the control environment

Barclays Group Risk Committee
- Reviews and recommend risk appetite and risk limit across operational risk to the Barclays PLC Board
- Monitors the Barclays Group risk profile and the utilisation of risk appetite
- Reviews appetite, limit usage and risk management within tolerance agreed by the Barclays PLC Board
- Reviews deep dives of specific risks as requested
- Reviews the impact of any material acquisitions and disposals on the risk profile
- Reviews remediation plans and actions taken, and agrees any further action required
- Escalated to Barclays PLC Board level

Barclays Group Controls Committee
- Oversees the effectiveness of the control environment
- Reviews and recommends the control framework
- Oversees control remediation activities
- Oversees the execution of the Operational Risk Management Framework consistently across Barclays Group
- Oversees risk and internal control matters including significant issues
- Escalates to Barclays PLC Board level

Operational Risk Committees
- Manage and oversee risk at the Group level
- Escalate to Barclays group level

Business Risk Committees
- Manage and oversee risk at the business/function level
- Escalate to Barclays Group level

Barclays Control Committees
- Manage and oversee the control environment at the business/ function level
- Escalate to Barclays Group level

Operational risk categories

Operational risks are grouped into risk categories to support effective risk management, measurement and reporting. These are defined as follows:

- **Data Management & Information Risk:** The risk that the Group data and records are not defined, captured, stored or managed in accordance with their value, and legal and regulatory requirements
- **Financial Reporting Risk:** The risk of a material misstatement or omission within the Group's external financial reporting, regulatory reporting or internal financial management reporting
- **Fraud Risk:** The risk of financial loss when an internal or external party acts dishonestly with the intent to obtain an undue benefit, cause a loss to, or to expose either the Group or its customers and clients to a risk of loss
- **Information Security Risk:** The risk that the Group information is not protected against potential unauthorised access, use, modification, disruption or destruction

Management of operational risk (continued)

- **Operational Recovery Planning Risk:** The risk that the Group does not understand the impact of operational disruption on its business services, is unable to recover business services within agreed timeframes, or does not have the ability to effectively respond to a crisis
- **Payments Process Risk:** The risk of payments being processed inaccurately, with delays, without appropriate authentication and authorisation. It also covers the risk associated with ineffective management associated with payment/card scheme membership
- **People Risk:** The set of risks associated with employing and managing people, appropriate resourcing for requirements, recruitment and development risks
- **Premises Risk:** The risk of business detriment or harm to people due to premises and infrastructure issues
- **Physical Security Risk:** The risk of business detriment, financial loss or harm to people as a result of any physical security incident impacting the Group or a Group employee - relating to harm to people, unauthorised access, intentional damage to premises or theft or intentional damage to movable assets
- **Change Delivery Management Risk:** The risk of failing to deliver and implement the agreed change initiatives and business outcomes required to deliver the Group and Business Unit Strategy within agreed timelines. This Risk exists whenever there is change is in flight (delivery risk) and or fails to recognise incremental risk to the business that the change may introduce once it is delivered (delivered risk).
- **Supplier Risk:** The risk that is introduced to the firm or entity as a consequence of obtaining services or goods from another legal entity or entities whether external or internal as a result of inappropriate and/or inadequate selection, management, or exit management
- **Tax Risk:** The risk of unexpected tax cost in relation to any tax for which the Group is liable, or of reputational damage on tax matters with key stakeholders such as tax authorities, regulators, shareholders or the public. Tax cost includes tax, interest or penalties levied by a taxing authority
- **Technology Risk:** The risk to the Group that comes about through its dependency on technological solutions
- **Transaction Operations Risk:** The risk of an unintentional error in the execution of a customer transaction resulting in delayed or inaccurate processing

The Operational Risk Taxonomy also includes operational risks associated with other Principal Risks, including Compliance, Legal, Climate, Model, Reputation Risk and the Financial Risks (Credit, Market, Treasury and Capital).

These risks may result in financial and/or non-financial impacts including legal/regulatory breaches or reputational damage.

Connected risks

The Group also recognises that there are certain threats/risk drivers which are interconnected and have the potential to impact the Group's strategic objectives. These are referred to as Connected Risks and require an overarching and integrated risk management and / or reporting approach, including:

- **Data:** The risks associated with the management, quality and control of data, its protection and confidentiality and its correct usage
- **Resilience:** The risk of the organisation's ability to anticipate, prevent, adapt, respond to, recover and learn from internal or external disruption, continuing to provide important business services to customers and clients, and minimise any impact on the wider financial system
- **Third-Party Service Management:** The risk associated with Third-Party Service Providers - defined as all entities that have entered into an arrangement with the Group in order to provide business functions, activities, goods, and/or services

Roles and responsibilities

The prime responsibility for the management of operational risk and the compliance with control requirements rests with the legal entities, business and functional units where the risk arises. The operational risk profile and control environment is reviewed by business management through business risk and control committees. Operational risk issues escalated from these meetings are considered through the second line of defence review meetings. Depending on their nature, the outputs of these meetings are presented to the Operational Risk Committee, Group Risk Committee, the Barclays PLC Board Risk Committee or the Barclays PLC Board Audit Committee.

Legal entities, businesses and functions are required to report their operational risks on both a regular and an event-driven basis. The reports include a profile of the material risks that may threaten the achievement of their objectives and the effectiveness of key controls, operational risk events and a review of scenarios.

The Group Head of Operational Risk is responsible for establishing, owning and maintaining an appropriate Group-wide Operational Risk Framework and for overseeing the portfolio of operational risk across the Group.

The Operational Risk function acts in a second line of defence capacity, and is responsible for defining and overseeing the implementation of the framework and monitoring the Group's operational risk profile. The Operational Risk function alerts management when risk levels exceed acceptable tolerance in order to drive timely decision making and actions by the first line of defence. Specific reports are prepared by Operational Risk on a regular basis for the Barclays Group Risk Committee, and the Barclays PLC Board Risk Committee.

Operational Risk Framework

The Operational Risk Framework comprises a number of elements which allow the Group to manage and measure its operational risk profile and to calculate the amount of operational risk capital that the Group needs to hold to absorb potential losses. The minimum, mandatory requirements for each of these elements are set out in the Operational Risk Framework and supporting policies. This framework is implemented across the Group with all legal entities, businesses and functions required to implement and operate an Operational Risk Framework that meets, as a minimum, the requirements detailed in the operational risk policies.

Management of operational risk (continued)

The Operational Risk Framework is a key component of the ERMF and has been designed to improve risk management and meet a number of external governance requirements including the Basel Capital Accord, the Capital Requirements Directive and Turnbull guidance as an evaluation framework for the purposes of Section 404(a) of the Sarbanes-Oxley Act. It also supports the Sarbanes-Oxley requirements.

The Operational Risk Framework includes the following elements:

Risk and Control Self-Assessments

Risk and control self-assessments (RCSAs) are the way in which the Group identifies and assesses the risks which are inherent in the material processes operated by Barclays Group. Managers in the business use the RCSA approach to evaluate the controls in place to mitigate those risks and assess the residual risk exposure to Barclays Group. The businesses / functions are then able to make decisions on what action, if any, is required to reduce the level of residual risk to the Group. These risk assessments are monitored on a regular basis to maintain that each business understands the risks it faces.

Risk Events

An operational risk event is any circumstance where, through the lack or failure of a control, the Group has actually, or could have, made a loss. The definition includes situations in which the Group could have made a loss, but in fact made a gain, as well as incidents resulting in reputational damage or regulatory impact only.

A standard threshold is used across the Group for reporting risk events and part of the analysis includes the identification of improvements to processes or controls, to reduce the recurrence and/or magnitude of risk events. For significant events, both financial and non-financial, this analysis includes the completion of a formal lessons learnt report.

The Group also maintains a record of external risk events which are publicly available and is a member of the Operational Risk data eXchange (ORX), a not-for-profit association of international banks formed to share anonymous loss data information. This external loss information is used to support and inform risk identification, assessment and measurement.

Operational Risk Appetite

The Board approves an Operational Risk Appetite Statement on an annual basis, establishing the level of operational risk that is acceptable in pursuit of the Group's strategic objectives.

Operational risks are assessed and monitored against the Board approved Operational Risk Appetite, with Risk Reduction Plans established for any risks that are above the acceptable level.

The Operational Risk Profile is monitored through Risk Committees at legal entity, Barclays Group and Board level in the context of Operational Risk Appetite.

Key Indicators

Key indicators (KIs) are metrics which allow the Operational Risk Profile to be measured and monitored against management's risk appetite. KIs include defined thresholds and performance is reported regularly to Management to drive action when risk exceeds acceptable limits.

Risk Scenarios

Risk scenarios is a summary of the extreme potential risk exposures for Barclays Group and material entities covering the complete range of risks. The scenarios include an assessment of the key drivers for the exposure, occurrence and impact of the scenario allowing a review of the corresponding control environment if required. The risk scenario assessments are a key input to the calculation and benchmarking of economic capital requirements (see following section on operational risk measurement). The assessment considers analysis of the current and emerging risk profile, internal and external loss experience, KIs, Risk and RCSAs and other relevant information. The businesses and functions analyse potential extreme scenarios, considering the:

- circumstances and contributing factors that could lead to an extreme event;
- potential financial impacts; and
- likelihood of an extreme event occurring

Management then determines whether the potential risk exposure is acceptable or whether changes in risk management control or business strategy are required.

The risk scenarios are regularly re-assessed, taking into account trends in risk factors.

Reporting

The ongoing monitoring and reporting of operational risk is a key component of the Operational Risk Framework. Reports and management information are used by the Operational Risk function and by legal entity and business management to understand, monitor, manage and control operational risks and losses.

The operational risk profile is reviewed by senior management at legal entity Risk Committee meetings as well as the Operational Risk Committee, Group Risk Committee and Board Risk Committee, Board Audit Committee and the Board.

Operational Risk Measurement

The Group assesses its Operational Risk Capital requirements using the Standardised Approach (TSA).

Insurance

As part of its risk management approach, the Group also uses insurance to mitigate the impact of some operational risks.

Management of model risk

The types of model risk, and how they are managed, are detailed in this section.

- **Model risk is the potential for adverse consequences from decisions based on incorrect or misused model outputs and reports**

Management of model risk

Model risk

The potential for adverse consequences from decisions based on incorrect or misused model outputs and reports.

Overview

The Group uses models to support a broad range of activities, including informing business decisions and strategies, measuring and limiting risk, valuing exposures, conducting stress testing, assessing capital adequacy, managing client assets, and meeting reporting requirements.

Since models are imperfect and incomplete representations of reality, they may be subject to uncertainty, errors and inappropriate use affecting the accuracy of their output. This can result in inappropriate business decisions being made, financial loss, regulatory risk, reputational risk and/or inadequate capital reporting. Models may also be misused, for instance applied to products that they were not intended for, or not adjusted, where fundamental changes to their environment would justify re-evaluating their core assumptions.

Robust model risk management is crucial to assessing and managing model risk within a defined risk appetite. Strong model risk culture, appropriate technology environment, and adequate focus on understanding and resolving model limitations are crucial components.

Organisation and structure

The Group allocates substantial resources to identify and record models and their usage, document and monitor the performance of models, validate models and adequately address model limitations. The Group manages model risk as an enterprise level risk similar to other principal risks. The Barclays Group has a dedicated Model Risk Management ('MRM') function that consists of six teams: (i) Independent Validation Unit ('IVU'), responsible for model validation and approval; (ii) Group Model Risk Governance, responsible for model risk governance, controls and reporting, as well as providing oversight for compliance of the Model Owner community with the Model Risk Framework (MRF); (iii) Framework team, responsible for the Model Risk Policy and associated standards; (iv) Infrastructure Delivery and Oversight, responsible for the delivery of model inventory including associated data quality & reporting and oversight of Quantitative Processes; (v) COO, responsible for strategy, communications and business management; and (vi) Model Risk Measurement and Quantification ('MRMQ'), responsible for the design of the framework and methodology to measure and, where possible, quantify model risk. It is also responsible for the strategic Validation Centre of Excellence ('VCoE'), which is an independent quality assurance function within MRM with the mandate to review and challenge validation outcomes. VCoE is aligned to the Group Model Risk Governance team.

The MRF is defined and implemented through Model Risk Policy and Standards that prescribe the Barclays Group-wide, end-to-end requirements for the identification, measurement and management of model risk, covering model documentation, development, testing, monitoring, annual review, independent validation and approval, change and reporting processes..

The function reports to the Group CRO and operates a global framework. Implementation of best practice standards is a central objective of the Group. Model risk reporting flows to senior management as depicted below.

Organisation and structure

Barclays PLC Board Risk Committee

- Review and recommends Barclays Group's risk appetite for model risk to the Barclays PLC Board
- Reviews the effectiveness of the processes and policies by which Barclays Group identifies and manages model risk
- Assesses performance relative to model risk appetite

Barclays Group Risk Committee

- Reviews risk appetite for model risk
- Monitors the risk profile for model risk, including emerging risks, against expected trends and the utilisation of risk appetite

Group Model Management Steering Committee

- Facilitate Senior Management oversight of the strategic approach taken for the development/redevelopment of material models and of key model risk aspects of associated rating systems within Barclays incl.:
  - Approves Regulatory Pre-Approval applications of strategic models identified by senior management.
  - Approve the annual refresh of the IRB roll out plan prior to submission to the PRA.
- Oversees strategic modelling approaches for the development and redevelopment of in scope models, also in light of reg. feedback
- Reviews and challenges compliance and interpretation of relevant regulations and technical standards

Group Model Risk Committee

- Reviews and monitors the model risk profile and control environment, and assesses exposures against approved appetite and associated tolerances
- Reviews and challenges progress with material regulatory audit commitments and key strategic initiatives.
- Communicates material changes to the Model Risk Framework.
- Identifies and escalates model risk issues and emerging risks as appropriate.

Management of model risk (continued)

Roles and responsibilities

The key model risk management activities include:

- Correctly identifying models across all relevant areas of the Group, and recording models in the Group Models Database (GMD), the Group-wide model inventory. The heads of the relevant model ownership areas (typically, the business Chief Risk Officers, business Chief Executive Officers, Group Finance Director, Treasurer, etc.) annually attest to the completeness and accuracy of the model inventory
- Enforcing that every model has a model owner who is accountable for the model. The model owner must sign off models prior to submission to IVU for validation. The model owner works with the relevant technical teams (model developers, implementation, monitoring, data services, regulatory) to maintain that the model presented to IVU is and remains fit for purpose
- Overseeing that every model is subject to validation and approval by IVU, prior to being used and on a continual basis. While all models are reviewed and re-approved for continued use each year, the validation frequency and the level of review and challenge applied by IVU is tailored to the materiality and complexity of each model. Validation includes a review of the model assumptions, conceptual soundness, data, design, performance testing, compliance with external requirements if applicable, as well as any limitations, proposed remediation and overlays with supporting rationale. Material model changes are subject to prioritised validation and approval
- Defining model risk appetite in terms of risk tolerance, and qualitative metrics which are used to track and report model risk
- Maintaining specific standards that cover model risk management activities relating to stress testing challenger models, model overlays and vendor models

Management of compliance risk

This section provides an overview of the management of compliance risk

- **Compliance risk is the risk of poor outcomes for, or harm to, customers, clients and markets, arising from the delivery of the Group's products and services, and the risk to Barclays, its customers, clients or markets from a failure to comply with the laws, rules and regulations applicable to the Group**

Management of compliance risk

Compliance risk

The risk of poor outcomes for, or harm to, customers, clients and markets, arising from the delivery of the firm's products and services (Conduct risk), and the risk to Barclays, its Clients, Customers or Markets from a failure to comply with the Laws, Rules and Regulations applicable to the firm (Laws, Rules and Regulation risk - 'LRR Risk').

Overview

The Group defines, manages and mitigates Compliance Risk with the objective of providing good customer and client outcomes and protecting market integrity.

Compliance Risk incorporates market integrity, customer protection, financial crime, product design and review, and the newly created laws, rules and regulation risks. Barclays has no appetite to operate its business other than in full accordance with all applicable laws, rules and regulations, in order to deliver good outcomes for / avoid harm to customers, clients and markets. Barclays will act in good faith; seeking to avoid causing foreseeable harm and to enable and support customers to pursue their financial objectives.

Organisation and structure

The governance of Compliance Risk within the Group is fulfilled through management committees and forums operated by the first and second lines of defence, with clear escalation and reporting lines to the Board.

The Barclays Group and Barclays Bank Group Risk Committee and the Barclays Bank UK Group Risk Committee are the primary second line governance committees for the oversight of the Compliance Risk profile. The risk committees' responsibilities include the identification and discussion of any emerging Compliance Risk exposures in their respective entities.

The Barclays Group and Barclays Bank Board Risk Committee and the Barclays Bank UK Group Board Risk Committee review, on behalf of their respective Boards, the management of Compliance Risk and the Compliance Risk profile for the respective entities. The Committees also safeguard the independence of, and oversee the performance of, the Group Compliance Function.

Roles and responsibilities

The Compliance Risk Management Framework (CRMF) outlines how the Group manages and measures its Compliance Risk profile. The Group Chief Compliance Officer is accountable for developing, maintaining and overseeing a group-wide CRMF. This includes defining and owning the relevant Compliance Risk policies which detail the control objectives, principles and other core requirements for the activities of the Group. It is the responsibility of the first line of defence to establish conduct related controls to manage its performance and assess conformance to these policies and controls. The responsibility for LRR risk management sits across various functions and business units, including Legal, Chief Controls Office, Risk and Compliance.

Senior managers are accountable within their areas of responsibility for owning and managing Compliance Risk in accordance with the CRMF, as defined within their regulatory Statement of Responsibilities, and a dedicated team has been established in Compliance to oversee LRR risk management.

Compliance, as an independent second line function, oversees that Compliance risks are effectively identified, managed, monitored and escalated and has a key role in helping Barclays achieve the right conduct outcomes and evolve a Compliance -focused culture.

Organisation and structure

Barclays PLC Board Risk Committee

- Reviews the effectiveness of the processes and policies by which Barclays Group and Barclays Bank Group identifies and manages Compliance Risk including the consideration and approval of the Barclays Group Compliance Risk Management Framework and any amendments thereto, and annually reviewing the effectiveness
- Reviews periodic Compliance Risk reports which, with respect to Barclays Bank Group Compliance Risk Policies and
- Maintains oversight of the Barclays Group Compliance Function

Barclays Bank UK PLC Board Risk Committee

- Reviews the effectiveness of the processes by which Barclays Bank UK Group identifies and manages Compliance Risk, including annually reviewing the effectiveness of the Barclays Group Compliance Risk Management Framework as it applies to Barclays Bank UK Group;
- Reviews periodic Compliance Risk reports which will include adopting Compliance Risk metrics as set by the Barclays PLC Board Risk Committee, agreeing any specific Barclays Bank UK Group metrics and performance against the same and compliance with Barclays Group Compliance Risk Policies, and
- Maintains oversight of the Barclays Group

Barclays Group Controls Committees

- Provides oversight of the effectiveness of the Control Environment in relation to Compliance Risk, including remediation of control failures relating to Compliance issues and risk events

Barclays Group Risk Committee

- Oversees the Compliance Risk Profile and implementation of the Group Compliance Risk Management Framework for Barclays Group and Barclays Bank Group

Barclays UK Risk Committee

- Oversees the Compliance Risk Profile and implementation of the Group Compliance Risk Management Framework for Barclays Bank UK Group

Management of reputation risk

This section provides an overview of the management of reputation risk

- **Reputation risk is the risk that an action, transaction, investment, event, decision, or business relationship will reduce trust in the Group's integrity and/or competence.**

Management of reputation risk

Reputation risk

The risk that an action, transaction, investment, event, decision, or business relationship will reduce trust in the firm's integrity and/or competence.

Overview

A reduction of trust in the Group's integrity and competence may reduce the attractiveness of the Group to stakeholders and could lead to negative publicity, loss of revenue, regulatory or legislative action, loss of existing and potential client business, reduced workforce morale and difficulties in recruiting talent. Ultimately it may destroy shareholder value.

Organisation and structure

The Barclays PLC Board is the most senior body responsible for reviewing and monitoring the effectiveness of the Group's management of reputation risk.

Roles and responsibilities

The Group Chief Compliance Officer is accountable for developing a Reputation Risk Management Framework and Public Policy & Corporate Responsibility is responsible for the publication of appropriate Reputation Risk Policies, Standards and Control requirements and overseeing adherence, as well as providing Reputation Risk management advice and guidance and acting as subject matter experts on Reputation Risk matters. Reputation risk is by nature pervasive and can be difficult to quantify, requiring more subjective judgement than many other risks. The Reputation Risk Management Framework sets out what is required to manage reputation risk across the Group.

The primary responsibility for identifying and managing reputation risk and adherence to the control requirements sits with the business and support functions where the risk arises.

Barclays Bank Group and Barclays Bank UK Group are required to operate within established reputation risk appetite, and their component businesses prepare reports highlighting their most significant current and potential reputation risks and issues and how they are being managed.

These reports are a key internal source of information for the quarterly reputation risk reports which are prepared for Group ExCo and reviewed by the Group Board twice-yearly.

Organisation and structure

Barclays PLC Board

- Reviews the effectiveness of the process and policies by which Barclays Group identifies and manages reputation risk
- Considers and evaluates regular reports on Barclays Group's reputation risk issues and exposures
- Considers whether significant business decisions will compromise Barclays Group's ethical policies or core business beliefs and values

Group Reputation Risk Committee

- Reviews the monitoring processes utilised by Compliance and Public Policy and Corporate Responsibility to ensure they are proportionate given the level of risk identified in the businesses
- Sub-committee of the Group Executive Committee authorised to manage material reputation risks and issues as they are brought to the attention of the committee via relevant reputation risk assessment and escalation processes

Business Risk Committees/Forums

- Review and escalate reputation risks in accordance with Barclays Group's Reputation Risk Management Framework

Management of legal risk

This section provides an overview of the management of legal risk

- **Legal risk is the risk of loss or imposition of penalties, damages or fines from the failure of the Group to meet applicable laws, rules, regulations or contractual requirements or to assert or defend its intellectual property rights.**

Management of legal risk

Legal risk

The risk of loss or imposition of penalties, damages or fines from the failure of the firm to meet applicable laws, rules, regulations or contractual requirements or to assert or defend its intellectual property rights.

Overview

The multitude of laws and regulations across the globe are highly dynamic and their application to particular circumstances is often unclear. This results in a high level of inherent legal risk which the Group seeks to mitigate through the operation of a Group-wide legal risk management framework. This seeks to mitigate legal risk, including through the implementation of Group-wide legal risk policies requiring engagement of legal professionals in situations that have the potential for legal risk, identification and management of legal risks by those legal professionals, and escalation of legal risk as necessary. Legal risk is also mitigated by the complementary requirements of the compliance risk management framework, including the responsibility of legal professionals to proactively identify, communicate and provide legal advice on applicable laws, rules and regulations. Notwithstanding these mitigating actions, the Group operates with a level of residual legal risk, for which the Group has limited tolerance.

Organisation, roles and responsibilities

The Group's businesses and functions have responsibility for identifying and escalating to the Legal Function legal risk in their area, as well as responsibility for adherence to control requirements.

The Legal Function organisation and coverage model aligns legal expertise to businesses, functions, products, activities and geographic locations so that the Group receives legal advice and support from appropriate legal professionals, working in partnership proactively to identify, manage and escalate legal risk as necessary.

The senior management of the Legal Function oversees, challenges and monitors the legal risk profile and effectiveness of the legal risk control environment across the Group. The Legal Function provides support to all areas of the bank and is not formally part of any of the three lines of defence. Except in relation to the legal advice it provides or procures, the Legal Function is subject to oversight from the second line of defence with respect to its own operational and compliance risks, as well as with respect to the legal risk to which the bank is exposed.

The Group General Counsel is responsible for developing and maintaining a Group-wide legal risk management framework. This includes defining the relevant legal risk policies, producing the Group-wide risk appetite statement for legal risk and oversight of the implementation of controls to manage and escalate legal risk.

The legal risk profile and control environment is reviewed by management through business risk committees and control committees. The Group Risk Committee is the most senior executive body responsible for reviewing and monitoring the effectiveness of risk management across the Group. Escalation paths from this committee exist to the Barclays PLC Board Risk Committee.

Organisation and structure

Barclays PLC Board Risk Committee
- Considers and recommends to the Barclays PLC Board legal risk appetite and tolerances
- Reviews the legal risk profile and the management of legal risk
- Commissions, receives and considers reports on key legal risk issues

Barclays Group Risk Committee
- Reviews and monitors the legal risk profile with respect to legal risk appetite and tolerances
- Reviews and recommends to the Barclays PLC Board Risk Committee legal risk appetite and tolerances
- Escalates and reports to Barclays Group Board level

Barclays Group Controls Committee
- Oversees the effectiveness of the legal risk control environment with respect to legal risk appetite and tolerances
- Escalates to Group Risk Committee and reports to Barclays Group Board level

Business Risk Committees
- Oversee the legal risk profile for their business with respect to its legal risk appetite and tolerances
- Escalate to Barclays Group Risk Committee

Legal Executive Committee
- Oversees, reviews and challenges, as appropriate, the legal risk profile and effectiveness of the legal risk control environment across the Barclays Group with respect to legal risk appetite and tolerances
- Escalates and reports to Barclays Group Risk and Controls Committees as appropriate

Business Controls Committees
- Oversee the effectiveness of the legal risk control environment for their business with respect to its legal risk appetite and tolerances
- Escalate to Barclays Group Controls Committee

Appendices

Appendix A – Countercyclical Capital Buffer

Table 93: CCyB1 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer

The below table shows the geographical distribution of credit exposures relevant to the calculation of the countercyclical buffer in line with CRR Article 440. Exposures in the below table are prepared in accordance with CRD Article 140 hence exclude exposures to central governments/banks, regional governments, local authorities, public sector entities, multilateral development banks, international organisations and institutions and as such the exposure values differ to those found in the Analysis of credit risk section.

As at 31 December 2023	General credit exposures		Relevant credit exposures – Market risk				Own fund requirements						
	Exposure value under the standardised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights	Counter-cyclical buffer rate (%)
Breakdown by country	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	%	%
DENMARK	311	130	9	23	—	473	27	3	—	31	386	0.17%	2.50%
NORWAY	319	421	19	84	—	843	26	4	—	31	382	0.17%	2.50%
UNITED KINGDOM	26,808	247,521	647	2,013	21,426	298,415	6,962	63	282	7,307	91,332	40.43 %	2.00%
SWEDEN	1,123	242	24	278	397	2,063	77	4	5	86	1,078	0.48%	2.00%
CZECH REPUBLIC	—	102	2	74	—	178	8	7	—	15	186	0.08%	2.00%
ICELAND	—	—	—	4	—	5	—	—	—	—	2	—	2.00%
BULGARIA	—	—	—	—	—	—	—	—	—	—	—	—	2.00%
ESTONIA	—	3	—	—	—	3	—	—	—	—	4	—	1.50%
SLOVAKIA	—	—	—	5	—	5	—	—	—	—	4	—	1.50%
IRELAND	513	3,746	36	82	1,247	5,623	139	7	21	166	2,080	0.92 %	1.00%
NETHERLANDS	839	2,197	145	672	121	3,974	133	17	1	151	1,882	0.83%	1.00%
AUSTRALIA	291	1,749	51	153	571	2,814	73	6	7	86	1,081	0.48 %	1.00%
HONG KONG	348	539	16	146	—	1,048	39	2	—	41	515	0.23%	1.00%
ROMANIA	—	—	—	2	—	2	—	—	—	—	2	—	1.00%
CROATIA	—	—	—	—	—	—	—	—	—	—	—	—	1.00%
LITHUANIA	—	—	—	—	—	—	—	—	—	—	—	—	1.00%
GERMANY	2,341	6,901	259	1,159	172	10,831	370	32	3	406	5,071	2.24%	0.75%
LUXEMBOURG	3,432	2,426	109	161	382	6,509	298	12	7	317	3,967	1.76%	0.50%
FRANCE	2,080	2,954	290	1,851	936	8,112	200	36	20	255	3,184	1.41%	0.50%
CYPRUS	42	—	—	6	—	49	3	1	—	4	55	0.02%	0.50%
SLOVENIA	—	—	—	—	—	—	—	—	—	—	—	—	0.50%
Total (countries with existing CCyB rate)	38,447	268,931	1,607	6,713	25,252	340,947	8,355	194	346	8,896	111,211	49.23%	
UNITED STATES	44,855	56,199	11,107	3,031	69,370	184,563	5,468	561	1,036	7,065	88,315	39.10%	n/a
ITALY	727	4,334	165	46	—	5,272	270	31	—	301	3,764	1.67%	n/a
INDIA	2,588	216	153	146	198	3,301	221	20	3	244	3,052	1.35%	n/a
Total (countries with own funds requirements weights 1% or above)	48,170	60,749	11,425	3,223	69,568	193,136	5,959	612	1,039	7,610	95,131	42.11%	
Total (rest of the world less than 1% requirement)	10,782	19,484	1,473	2,392	2,329	36,460	1,319	215	30	1,564	19,553	8.66%	
TOTAL	97,399	349,164	14,505	12,328	97,149	570,543	15,633	1,021	1,415	18,070	225,895	100.00%	

Appendix A – Countercyclical Capital Buffer

Table 93: CCyB1 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer (continued)

As at 31 December 2022	General credit exposures		Relevant credit exposures – Market risk				Own fund requirements						
	Exposure value under the standardised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own fund requirements weights	Counter-cyclical buffer rate (%)
Breakdown by country	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	%	%
NORWAY	404	423	22	35	—	885	33	3	—	36	449	0.20%	2.00%
DENMARK	310	167	5	36	—	517	29	2	—	31	386	0.17%	2.00%
ICELAND	—	—	—	6	—	7	—	—	—	—	4	—	2.00%
CZECH REPUBLIC	3	152	—	21	—	176	5	2	—	7	89	0.04%	1.50%
UNITED KINGDOM	26,979	258,342	577	52	23,368	309,317	7,168	62	315	7,545	94,316	41.51%	1.00%
SWEDEN	1,119	457	25	7	382	1,990	79	4	7	90	1,129	0.50%	1.00%
HONG KONG	347	465	20	96	—	927	37	2	—	40	494	0.22%	1.00%
BULGARIA	—	—	—	—	—	—	—	—	—	—	—	—	1.00%
SLOVAKIA	—	—	—	8	—	8	—	—	—	—	5	—	1.00%
ESTONIA	—	3	—	—	—	3	—	—	—	—	4	—	1.00%
LUXEMBOURG	2,673	2,932	95	28	577	6,305	252	13	10	275	3,435	1.51%	0.50%
ROMANIA	—	—	—	—	—	—	—	—	—	—	—	—	0.50%
Total (countries with existing CCyB rate)	31,835	262,941	744	289	24,327	320,135	7,603	88	332	8,024	100,311	44.15%	
UNITED STATES	43,701	57,278	10,958	7,513	57,254	176,705	5,602	519	927	7,048	88,103	38.78%	n/a
GERMANY	2,695	6,947	252	120	44	10,058	388	25	2	415	5,190	2.28%	n/a
INDIA	2,997	126	66	7	151	3,348	254	8	2	264	3,297	1.45%	n/a
ITALY	583	5,129	64	333	—	6,109	241	17	—	258	3,228	1.42%	n/a
FRANCE	2,163	3,568	284	50	667	6,732	185	32	14	230	2,876	1.27%	n/a
IRELAND	841	4,019	48	67	1,419	6,394	162	4	23	189	2,361	1.04%	n/a
NETHERLANDS	714	2,925	120	195	163	4,118	167	14	3	183	2,291	1.01%	n/a
Total (countries with own funds requirements weights 1% or above)	53,694	79,992	11,792	8,285	59,698	213,464	6,999	619	971	8,587	107,346	47.25%	
Total (rest of the world less than 1% requirement)	11,733	20,184	1,921	2,094	1,579	37,509	1,363	177	24	1,565	19,544	8.60%	n/a
Total	97,262	363,117	14,457	10,668	85,604	571,108	15,965	884	1,327	18,176	227,201	100.00%	

Appendix A – Countercyclical Capital Buffer (continued)

Table 94: CCyB2 - Amount of institution-specific countercyclical capital buffer

This table shows an overview of institution specific countercyclical exposure and buffer requirements.

		As at 31 December 2023	As at 31 December 2022
1	Total risk exposure amount	**342,717**	**336,518**
2	Institution specific countercyclical capital buffer rate	**0.9%**	**0.4%**
3	Institution specific countercyclical capital buffer requirement	**3,036**	**1,473**

Appendix B – Disclosures on asset encumbrance

Asset encumbrance arises from collateral pledged against secured funding and other collateralised obligations. The Group funds a portion of trading portfolio assets and other securities via repurchase agreements and other similar borrowing, and pledges a portion of loans and advances as collateral in securitisation, covered bond and other similar secured structures. The Group monitors the mix of secured and unsecured funding sources and seeks to efficiently utilise available collateral to raise secured funding and meet other collateral requirements.

Assets are considered encumbered when they have been pledged or used to secure, collateralise or credit enhance a transaction which impacts their transferability and free use. This includes external repurchase or other similar agreements with market counterparties.

Excluding assets positioned at central banks, as at 31 December 2023, £266.1bn (December 2022: £206.8bn) of the Group's assets were encumbered, primarily due to firm financing of trading portfolio assets, posting of cash collateral and, funding secured against loans and advances.

Assets may also be encumbered under secured funding arrangements with central banks. In advance of such encumbrance, assets are often positioned with central banks to facilitate efficient future draw down. £70.5bn (December 2022: £81.4bn) of on-balance sheet assets were positioned at the central banks, consisting of encumbered assets and collateral available for use in secured financing transactions.

There may be occasions where agreements are in place to over-collateralise funding structures such as securitisations and covered bonds. This is on an individual transaction basis and will typically result in higher levels of encumbrance. Encumbered assets comprise a range of different currencies primarily GBP, USD, EUR and JPY.

£471.1bn (December 2022: £507.6bn) of on- and off-balance sheet assets not positioned at central banks were identified as readily available. They include cash and securities held in the Group liquidity pool as well as unencumbered assets which provide a source of contingent liquidity. A portion of the assets in this category that are not part of the liquidity pool may be monetised to generate liquidity through use as collateral for secured funding or through outright sale. Loans and advances to customers are only classified as readily available if they are already in a form such that they can be used to raise funding without further management actions £49.9bn (December 2022: £44.6bn). This includes excess collateral already in secured funding vehicles £8.5bn (December 2022: £7.1bn).

£232.8bn (December 2022: £233.7bn) of assets not positioned at central banks were identified as available as collateral. These assets are not subject to identified restrictions on their ability to secure funding, to be offered as collateral, or to be sold to reduce potential future funding requirements, but are not immediately available in the normal course of business in their current form. They primarily consist of loans and advances which could be suitable for use in secured funding structures, subject to customary due diligence, but are classified as not readily available because they are not in a transferable form.

The Group has £99.1bn (December 2022: £109.2bn) of underlying assets and cover pool assets of securitisations and covered bonds, of which £53.0bn (December 2022: £53.0bn) of assets are encumbered and £46.1bn (December 2022: £56.2bn) are unencumbered. In total, the Group has £14.4bn (December 2022:£15.3bn) of unencumbered retained securitisations and retained covered bonds.

£82.2bn (December 2022: £72.4bn) of assets not positioned at central banks were identified as not available as collateral. These assets cannot be pledged or used as security for funding due to restrictions that prevent their pledge or use as security for funding in the normal course of business.

Derivatives and reverse repos are shown separately as these on-balance sheet assets cannot be pledged. However, these assets can give rise to the receipt of non-cash assets which are held off-balance sheet, and can be used to raise secured funding or meet additional funding requirements.

£1,045.1bn (December 2022: £815.6bn) of the total £1,147.3bn (December 2022: £908.0bn) securities accepted as collateral, and held off-balance sheet, were on-pledged, the significant majority of which related to matched-book activity where reverse repurchase agreements are matched by repurchase agreements entered into to facilitate client activity and stock lending arrangements. The remainder primarily relates to collateral posted against derivatives margin requirements.

Appendix B – Disclosure on asset encumbrance (continued)

Asset encumbrance

Barclays Group

On-balance sheet	Assets encumbered as a result of transactions with counterparties other than central banks					Other assets (comprising assets encumbered at central banks and unencumbered assets)					
							Assets not positioned at central banks				
	Assets	As a result of covered bonds	As a result of securitisations	Other	Total	Assets positioned at central banks[a]	Readily available assets	Available as collateral	Not available as collateral	Derivatives and Reverse repos	Total
As at 31 December 2023	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**
Cash and balances at central banks	**224,634**	**—**	**—**	**—**	**—**	**—**	**224,634**	**—**	**—**	**—**	**224,634**
Cash collateral	**82,820**	**—**	**—**	**73,520**	**73,520**	**—**	**9,300**	**—**	**—**	**—**	**9,300**
Settlement balances	**26,101**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**26,101**	**—**	**26,101**
Loans and advances at amortised cost	**390,630**	**2,144**	**3,078**	**36,076**	**41,298**	**69,343**	**49,856**	**228,885**	**1,248**	**—**	**349,332**
Reverse repurchase agreements and other similar secured lending	**2,594**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**2,594**	**2,594**
Trading portfolio assets	**175,557**	**—**	**—**	**118,011**	**118,011**	**40**	**57,506**	**—**	**—**	**—**	**57,546**
Financial assets at fair value through the income statement	**206,285**	**—**	**—**	**9,843**	**9,843**	**—**	**4,059**	**3,191**	**—**	**189,192**	**196,442**
Derivative financial instruments	**256,109**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**256,109**	**256,109**
Financial assets at fair value through other comprehensive income	**71,896**	**—**	**—**	**23,419**	**23,419**	**1,182**	**46,524**	**771**	**—**	**—**	**48,477**
Other assets	**31,795**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**31,795**	**—**	**31,795**
Total on-balance sheet	**1,468,421**	**2,144**	**3,078**	**260,869**	**266,091**	**70,565**	**391,879**	**232,847**	**59,144**	**447,895**	**1,202,330**
As at 31 December 2022											
Cash and balances at central banks	256,288	—	—	—	—	—	256,288	—	—	—	256,288
Cash collateral	87,579	—	—	78,384	78,384	—	9,195	—	—	—	9,195
Settlement balances	24,411	—	—	—	—	—	—	—	24,411	—	24,411
Loans and advances at amortised cost	390,227	4,677	1,932	28,539	35,148	80,165	44,643	229,724	547	—	355,079
Reverse repurchase agreements and other similar secured lending	776	—	—	—	—	—	—	—	—	776	776
Trading portfolio assets	137,160	—	—	67,319	67,319	170	69,671	—	—	—	69,841
Financial assets at fair value through the income statement	211,823	—	—	8,354	8,354	—	6,336	3,775	—	193,358	203,469
Derivative financial instruments	301,931	—	—	—	—	—	—	—	—	301,931	301,931
Financial assets at fair value through other comprehensive income	65,148	—	—	17,568	17,568	1,018	46,340	222	—	—	47,580
Other assets	30,107	—	—	—	—	—	—	—	30,107	—	30,107
Total on-balance sheet	1,505,450	4,677	1,932	200,164	206,773	81,353	432,473	233,721	55,065	496,065	1,298,677

Off-balance sheet

	Collateral received[ab]	Collateral received of which on-pledged[b]	Readily available assets	Available as collateral	Not available as collateral
As at 31 December 2023	**£m**	**£m**	**£m**	**£m**	**£m**
Fair value of securities accepted as collateral	**1,147,333**	**1,045,103**	**79,221**		**23,008**
Total unencumbered collateral			**471,100**	**232,847**	**82,152**
As at 31 December 2022					
Fair value of securities accepted as collateral	908,040	815,595	75,085	—	17,360
Total unencumbered collateral			507,558	233,721	72,425

Note

a Includes both encumbered and unencumbered assets. Assets within this category that have been encumbered are disclosed as assets pledged in Note 37 on page 496 of the Barclays PLC Annual Report 2023.

b Collateral received and pledged does not include collateral sourced through securities financing transaction which are sold short .FY2022 numbers have been re-presented.

Appendix B – Disclosure on asset encumbrance (continued)

The tables below (AE1, AE2 and AE3) are prepared based on the regulatory scope of consolidation that is consistent with other liquidity reporting disclosures. Each of the reported values in the tables below are derived from the median of values reported quarterly to the regulator over the period 1 January 2023 to 31 December 2023 and will differ to those disclosed in the previous table which reflects the 31 December 2023 position.

Table 95: AE1 - Encumbered and unencumbered assets

		Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
			of which notionally eligible EHQLA and		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
		010	030	040	050	060	080	090	100
As at 31 December 2023		£m	£m	£m	£m	£m	£m	£m	£m
010	**Assets of the reporting institution**	**263,635**	**189,431**			**1,294,770**	**370,125**		
030	Equity instruments	**45,618**	**32,061**	**45,618**	**32,061**	**33,209**	**10,294**	**33,209**	**10,294**
040	Debt securities	**93,060**	**83,595**	**93,060**	**83,595**	**108,814**	**86,947**	**108,814**	**86,947**
050	*of which: covered bonds*	***2,109***	***995***	***2,109***	***995***	***10,016***	***7,538***	***10,016***	***7,538***
060	*of which: securitisations*	***2,702***	***1,370***	***2,702***	***1,370***	***13,961***	***8,482***	***13,961***	***8,482***
070	*of which: issued by general governments*	***63,540***	***62,386***	***63,540***	***62,386***	***69,231***	***62,824***	***69,231***	***62,824***
080	*of which: issued by financial corporations*	***24,900***	***18,923***	***24,900***	***18,923***	***36,785***	***23,445***	***36,785***	***23,445***
090	*of which: issued by non-financial corporations*	***4,209***	***2,126***	***4,209***	***2,126***	***3,647***	***1,336***	***3,647***	***1,336***
120	Other assets	**127,493**	**76,401**			**1,141,361**	**268,263**		
As at 31 December 2022									
010	**Assets of the reporting institution**	229,588	162,415			1,318,023	368,272		
030	Equity instruments	26,289	17,195	26,289	17,195	39,660	16,052	39,660	16,052
040	Debt securities	70,685	63,472	70,685	63,472	101,186	80,644	101,186	80,644
050	*of which: covered bonds*	2,297	1,477	2,297	1,477	7,595	5,397	7,595	5,397
060	*of which: securitisations*	1,445	533	1,445	533	10,312	6,621	10,312	6,621
070	*of which: issued by general governments*	52,021	50,901	52,021	50,901	59,976	57,016	59,976	57,016
080	*of which: issued by financial corporations*	10,785	8,448	10,785	8,448	14,250	10,662	14,250	10,662
090	*of which: issued by non-financial corporations*	3,523	1,403	3,523	1,403	10,270	1,184	10,270	1,184
120	Other assets	132,614	81,245			1,180,896	269,600		

The Other Assets component of Carrying amount of encumbered assets of £127.5bn (December 2022: £132.6bn) predominantly contains loans and advances pledged as collateral in secured funding arrangements with central banks, securitisations, covered bonds and other similar secured structures. This also contains cash collateral posted for derivatives margin requirements.

Carrying amount of unencumbered assets of £1,294.8bn (December 2022: £1,318.0bn) contains:

- £33.2bn (December 2022: £39.7bn) of Equity securities and £108.8bn (December 2022: £101.2bn) of debt securities that may be monetised to generate liquidity through use as collateral for secured funding or through outright sale
- £271.1bn (December 2022: £284.3bn) of balances at central banks
- £342.8bn (December 2022: £335.8bn) of loans and advances which would be suitable for use in secured funding, some of which are already in a form such that, they can be used to raise funding without further management actions. This also includes excess collateral already in secured funding vehicles
- £538.9bn (December 2022: £557.0bn) of balances that are not readily available for use as collateral in the normal course of business, including derivative assets, reverse repos, settlement balances, intangibles, deferred tax assets, property, plant and equipment

The carrying amount of assets encumbered increased by £34.0bn to £263.6bn (December 2022 £229.6bn) primarily driven by higher balances of repurchase agreements and stock lending arrangements incurred as a result of funding trading portfolio assets and prime brokerage activities.

Appendix B – Disclosure on asset encumbrance (continued)

Table 96: AE2 - Collateral received and own debt securities issued

		Fair value of encumbered collateral received or own debt securities issued[a]		Unencumbered	
				Fair value of collateral received or own debt securities issued available for encumbrance	
			of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
		10	30	040	060
As at 31 December 2023		£m	£m	£m	£m
130	**Collateral received by the reporting institution**	**893,965**	**781,869**	**78,849**	**34,361**
140	Loans on demand	**—**	**—**	**—**	**—**
150	Equity instruments	**156,714**	**117,692**	**19,174**	**10,740**
160	Debt securities	**741,907**	**668,565**	**58,100**	**24,177**
170	*of which: covered bonds*	***13,160***	***4,565***	***4,263***	***1,668***
180	*of which: securitisations*	***17,646***	***5,822***	***10,831***	***1,280***
190	*of which: issued by general governments*	***650,288***	***639,526***	***21,698***	***19,344***
200	*of which: issued by financial corporations*	***52,019***	***16,124***	***28,467***	***3,777***
210	*of which: issued by non-financial corporations*	***40,388***	***13,224***	***8,673***	***1,735***
220	Loans and advances other than loans on demand	**—**	**—**	**—**	**—**
230	**Other collateral received**	**—**	**—**	**—**	**—**
240	**Own debt securities issued other than own covered bonds or securitisations**	**—**	**—**	**1,565**	**—**
241	**Own covered bonds and asset-backed securities issued and not yet pledged**	**—**	**—**	**8,159**	**—**
250	**TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED**	**1,152,866**	**964,745**	**—**	
As at 31 December 2022					
130	**Collateral received by the reporting institution**	785,882	689,740	99,668	54,147
140	Loans on demand	—	—	—	—
150	Equity instruments	103,047	72,461	28,996	18,915
160	Debt securities	682,835	617,279	69,712	35,232
170	*of which: covered bonds*	6,932	837	2,606	358
180	*of which: securitisations*	19,407	5,313	11,229	1,892
190	*of which: issued by general governments*	602,665	592,940	31,674	29,247
200	*of which: issued by financial corporations*	20,718	7,164	14,464	771
210	*of which: issued by non-financial corporations*	32,191	10,611	7,675	1,809
220	Loans and advances other than loans on demand	—	—	—	—
230	**Other collateral received**	—	—	—	—
240	**Own debt securities issued other than own covered bonds or securitisations**	—	—	1,497	—
241	**Own covered bonds and asset-backed securities issued and not yet pledged**			7,891	—
250	**TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED**	1,020,667	860,066		

Note

a Collateral received and pledged does not include collateral sourced through securities financing transaction which are sold short. FY2022 numbers have been re-presented.

The fair value of encumbered collateral received increased by £108.1bn to £894.0bn (December 2022 £785.9bn) primarily driven by higher matched-book activity where reverse repurchase agreements are matched by repurchase agreements entered into to facilitate client activities and stock lending arrangements.

Appendix B – Disclosure on asset encumbrance (continued)

Table 97: AE3 - Sources of encumbrance

		Matching liabilities, contingent liabilities or securities lent[a]	Assets, collateral received and own debt securities issued other than covered bonds and securitisations encumbered[a]
		10	30
As at 31 December 2023		£m	£m
010	Carrying amount of selected financial liabilities	**338,523**	**778,858**
120	Other sources of encumbrance	**375,274**	**379,626**
170	Total sources of encumbrance	**713,494**	**1,152,866**
As at 31 December 2022			
010	Carrying amount of selected financial liabilities	293,729	707,517
120	Other sources of encumbrance	306,719	310,193
170	Total sources of encumbrance	607,446	1,020,667

Note
a Collateral received and pledged does not include collateral sourced through securities financing transaction which are sold short. FY2022 numbers have been re-presented.

Carrying amount of selected financial liabilities of £338.5bn (December 2022: £293.7bn) primarily relates to repurchase agreements, posting of cash collateral for derivatives margin requirements and secured debt issuances. £375.3bn (December 2022: £306.7bn) of other sources of encumbrance represents stock lending agreements.

Total assets encumbered increased by £132.2bn to £1,152.9bn (December 2022 : £1,020.7bn) primarily driven by higher balances of repurchase agreements and stock lending arrangements incurred as a result of funding trading portfolio assets and prime brokerage activities, also matched-book activity where reverse repurchase agreements are matched by repurchase agreements entered into to facilitate client activity and stock lending arrangements.

Appendix C – Disclosures on remuneration

The following disclosures are made by applying instructions provided in Annex XXXIV and the tables as presented in Annex XXXIII of the PRA Rulebook, Disclosure (CRR) Part in application of Article 450 CRR.

The Remuneration report in the Barclays PLC Annual Report 2023 (the 'Remuneration report') provides an overview of the 2023 performance and pay outcomes for the Executive Directors of Barclays PLC, a summary of remuneration policies for all employees (which also apply to material risk takers ('MRTs')), and for the Executive Directors, as well as the decision-making process in respect of remuneration outcomes including the role of relevant stakeholders (e.g. shareholders, regulators and employees).

Remuneration governance

The Barclays PLC Board Remuneration Committee (the 'Committee') sets the overarching principles and parameters of the remuneration policy across the Barclays Group, completes an annual review of the remuneration policy and practices, and oversees remuneration issues. The composition of the Committee, details of the number of meetings held during the year, and the role of relevant stakeholders and external consultants in relation to remuneration are all included in the Remuneration report.

The Committee reviewed and approved the remuneration philosophy in 2023 without change. In February 2024 the Committee added an explicit reference to delivering good customer outcomes as part of the philosophy's rewarding sustainable performance objective. For 2023 there were not any substantive changes to the all-employee remuneration policy. The Directors' Remuneration Policy was approved by Barclays PLC shareholders at the AGM in May 2023. The only material change from the previous Directors' Remuneration Policy was to simplify the shareholding requirements and align the operation of those requirements to market practice (further details in the Remuneration report in the Barclays PLC Annual Report 2022).

Performance management and remuneration

Barclays' remuneration philosophy (set out in the Remuneration report) links remuneration to achieving sustainable performance. In this context, sustainable performance means making a positive and enduring difference to investors, customers and communities, delivering good customer outcomes, taking pride in leaving things better than we found them and playing a valuable role in society. Our remuneration philosophy applies to all employees of Barclays PLC globally (including those individuals identified as MRTs) and aims to reinforce our belief that effective performance management is critical to enabling the delivery of our business strategy in line with our Values. Employees who adhere to Barclays' Values and contribute to Barclays' success are rewarded accordingly.

This is achieved by basing performance assessments on clear standards of delivery and behaviour. This starts with employees aligning their personal objectives each year ('what' they will deliver) to business and team goals, to support the delivery of the business strategy and good client/customer outcomes, to a consistently excellent standard. Behavioural expectations ('how' people will achieve their objectives) are set in the context of our Values and Mindset.

Performance is assessed against both financial and non-financial criteria. Other factors are also taken into consideration within the overall performance assessment, including core job responsibilities, behaviours towards risk and control, colleague and stakeholder feedback, as well as input from the control functions and Chief Controls Office, where appropriate. Details of Barclays' financial and non-financial performance, and how they relate to the incentive pool, can be found as part of the Committee Chair's statement in the Remuneration report. Details of the metrics applicable to the BPLC Executive Directors' incentives, how they performed against these metrics, including where the metrics are not satisfied in full or where the Committee considers performance is below expectations, are also set out in the Remuneration report.

Through our approach to performance management, the equal importance of both what an individual has delivered and how the individual has achieved this is emphasised, encouraging balanced consideration of each dimension. These elements are assessed and rated independently of each other; there is no overall rating. This allows for more robust and reflective conversations between managers and team members on the individual components of performance.

Risk adjustment and remuneration

Another key feature of our remuneration philosophy is the alignment of remuneration with our risk appetite and with the conduct expectations of Barclays, our regulators and other stakeholders. The Committee takes risk and conduct events very seriously and ensures that there are appropriate adjustments to individual remuneration and, where necessary, the incentive pool.

The Remuneration Review Panel (the 'Panel'), which reports to the Committee, supports the Committee in this process. The Panel is chaired by the Group HR Director and includes the Group Heads of Risk, Compliance, Legal and Internal Audit as well as the CEO of Barclays Bank UK PLC and the President of Barclays Bank PLC. It applies our policies and processes for assessing compensation adjustments for risk and conduct events.

We have robust processes for considering risk and conduct as part of individual performance management, with outcomes reflected in individual remuneration decisions. Line managers have primary accountability for ensuring that risk and conduct issues are considered when assessing performance and making remuneration decisions. In addition, there is a secondary review by the control functions, for individuals involved in significant failures of risk management, conduct issues, regulatory actions or other major incidents that impact either the Group or a business area, to ensure these issues are properly considered. When considering individual responsibility, a variety of factors are taken into account, such as whether an individual was directly responsible, or whether the individual could be deemed indirectly responsible by virtue of seniority, including staff who drive the Group's culture and set its strategy.

Actions that may be taken where risk management and conduct falls below required standards include:

Appendix C – Disclosures on remuneration

Individual adjustments	Current year annual bonuses may be adjusted downwards where individuals are found to be involved (either directly or indirectly) in a risk or misconduct event.
Collective adjustments	In addition to reductions to individuals' bonuses, the Committee considers and makes collective adjustments to the incentive pool for specific risk and conduct events. The Committee also adjusts the incentive pool to take account of an assessment of future risks, including conduct, non-financial factors that can support the delivery of a strong risk management, control and conduct culture, and other factors including reputation, and impact on customers, markets and other stakeholders. The Committee is supported in its consideration of this adjustment by the Barclays PLC Board Risk Committee.
Malus	Unvested deferred bonuses from prior years are subject to malus provisions, which enable the Committee to reduce the vesting level of deferred bonuses (including to nil) at its discretion. Events that may lead the Committee to do this include, but are not limited to, employee misconduct or a material failure of risk management.
Clawback	Clawback applies to any variable remuneration awarded to a MRT on or after 1 January 2015 in respect of years for which they were a MRT. Barclays may apply clawback if, at any time during the seven-year period from the date on which variable remuneration is awarded to a MRT: (i) there is reasonable evidence of employee misbehaviour or material error, and/or (ii) the firm or the business unit suffers a material failure of risk management, taking account of the individual's proximity to and responsibility for that incident. Clawback may be extended to 10 years for PRA/FCA Senior Managers where there are outstanding internal or regulatory investigations at the end of the seven-year clawback period.

Remuneration structure

Employees receive salary, pension and other benefits and are eligible to be considered for an annual bonus. Some employees, including some MRTs, also receive Role Based Pay ('RBP'). Remuneration of all MRTs is subject to a 2:1 maximum ratio of variable to fixed remuneration. Executive Directors participate in the Barclays' Long Term Incentive Plan and receive part of their Fixed Pay in Barclays PLC shares (they do not receive RBP).

The remuneration of employees engaged in control functions is determined independently from the business they support and within the parameters of the incentive pool allocated to them by the Committee. Remuneration for control function employees is less weighted towards variable remuneration compared to front-office employees, with the ratio of variable to fixed remuneration typically limited to 1:1.

Fixed remuneration

Salary	Salaries reflect individuals' skills and experience and are reviewed annually. They are increased where justified by role change, increased responsibility, to reflect a change in the market rate or maintain appropriate competitive positioning. Salaries may also be increased in line with local statutory requirements and union and works council commitments.
Role Based Pay	Some MRTs receive a class of fixed pay called RBP to recognise the seniority, scale and complexity of their role. RBP may be adjusted where justified by a role or responsibility change or a change in the appropriate market rate.
Pension and benefits	The provision of a competitive package of benefits is important to attracting and retaining the talented staff needed to deliver Barclays' strategy. Employees have access to a range of country-specific company-funded benefits, including pension schemes, healthcare, life assurance and Barclays' share plans, as well as other voluntary employee-funded benefits. The cost of providing these benefits is defined and controlled.

Appendix C – Disclosures on remuneration

Variable remuneration

Annual bonus	Annual bonuses incentivise and reward the achievement of Group, business and individual objectives, and reward employees for demonstrating individual behaviours in line with Barclays' Values and Mindset. The ability to recognise performance through variable remuneration enables the Group to control its cost base flexibly and to react to events and market circumstances. Bonuses remain a key feature of remuneration practice in the highly competitive market for talent in the financial services sector. Annual bonuses may be delivered in both 'up-front' and deferred components. For MRTs (excluding 'de minimis' MRTs), both the up-front and deferred components have cash and share portions, in the case of the share portions subject to retention periods of either six or twelve months.
Bonus deferral	The Committee is careful to control the proportion of variable to fixed remuneration paid to individuals and to ensure an appropriate amount is deferred to future years. The typical deferral structures are:

For MRTs:

Incentive award	Amount deferred
< £500,000	40% of total award
£500,000 to £1,000,000	60% of total award
> £1,000,000	60% up to £1,000,000 100% above £1,000,000

For de minimis MRTs/non-MRTs

Incentive award	Amount deferred
Up to £65,000	0%
> £65,000	Graduated level of deferral

Deferred bonuses are generally delivered in equal portions as deferred cash and deferred shares (save for the Executive Directors for whom they are delivered 100% as deferred shares) subject to the rules of the deferred cash and share plans (as amended from time to time) and to continued service. Deferred bonuses are subject to either a 3, 4, 5 or 7-year deferral period in line with regulatory requirements.

Where dividend equivalents cannot be delivered on deferred bonus shares, the number of deferred bonus shares awarded will be calculated using a share price discounted to reflect the absence of dividends or equivalent during the vesting period.

Shareholding

Shareholding requirements	The Directors' Remuneration Policy (approved by Barclays PLC shareholders in May 2023) specifies Executive Director shareholding requirements. The Group Chief Executive and Group Finance Director are required to accumulate Barclays shareholdings worth a minimum of 233% and 224% of Fixed Pay respectively within five years from the date of their appointment, and must retain a shareholding for at least two years after stepping down from those roles. The shareholding requirement for other Group Executive Committee members is 200% of salary and needs to be met within five years from the date of their appointment. Shares that count towards the requirement are beneficially owned shares including any vested share awards subject only to holding periods, the estimated after-tax value of any shares from unvested deferred share bonuses, and the estimated after-tax value of any shares from unvested LTIP awards provided that no performance conditions remain untested. The Chairman and Non-Executive Directors have a requirement to use a portion of their annual fees (£100,000 for the Chairman, £30,000 Non-Executive Directors) to purchase shares, which must be retained until they retire from the Board.
Share plans	Alignment of other MRTs with shareholders is achieved through deferral of incentive pay. The Committee encourages additional employee shareholding by operating voluntary all-employee share plans in locations representing 99% of employees globally.

Awards of guaranteed variable remuneration are only made in exceptional circumstances in the context of hiring and typically only when a new hire starts in the last quarter of the year. When determining a termination payment, Barclays considers any applicable: (a) contractual requirements; (b) policies; (c) local legal and regulatory requirements; and (d) legal and reputational risk.

Remuneration of MRTs in respect of the financial year

MRTs are Barclays Group employees whose professional activities could have a material impact on the Group's risk profile, which includes (among others) the members of the Barclays PLC Board, the Barclays Bank UK PLC Board, the Barclays Bank PLC Board and the Barclays Bank Ireland PLC Board. A total of 1,622 individuals were MRTs in 2023 (2022: 1,612).

172 MRTs in 2023 benefited from the derogation in point (b) of Article 94(3) of the Capital Requirements Directive in respect of the remuneration requirements in points (l) and (m) of Article 94(1). The aggregate fixed remuneration for these MRTs was £30.4m and the aggregate variable remuneration was £5.5m.

The following tables set out remuneration disclosures for individuals identified as MRTs for Barclays PLC (remuneration information for individuals who are only identified as MRTs at Barclays Bank PLC, Barclays Bank UK PLC and Barclays Bank Ireland PLC are included, where relevant, in those entities' disclosures). In the tables, the terms below mean:

- 'MB' means Barclays PLC's management body (i.e. the Barclays PLC Board);
- 'MB Supervisory function' means those individuals who were Non-Executive Directors of Barclays PLC during 2023;
- 'MB Management function' means those individuals who were Executive Directors of Barclays PLC during 2023;
- 'Other senior management' means those individuals (excluding the Executive Directors of Barclays PLC) who were members of the Barclays PLC Executive Committee during 2023 in accordance with Article 3(1)(9) of CRDIV; and
- 'Other identified staff' means MRTs excluding MRTs included in MB Supervisory function, MB Management function and Other senior management.

Appendix C – Disclosures on remuneration

Table 98: UK REM1 - Remuneration awarded for the financial year (all figures are in £m except for 'Number of identified staff')

			MB Supervisory function	MB Management function	Other senior management	Other identified staff
1	Fixed remuneration	Number of identified staff	13	2	11.2	1,578.2
2		**Total fixed remuneration**	**3.9**	**5.1**	**20.0**	**874.3**
3		Of which: cash-based	3.9	2.3	13.9	822.7
4		(Not applicable in the UK)				
UK-4a		Of which: shares or equivalent ownership interests	—	2.3	5.4	10.6
5		Of which: share-linked instruments or equivalent non-cash instruments	—	—	—	—
UK-5x		Of which: other instruments	—	—	—	—
6		(Not applicable in the UK)				
7		Of which: other forms[a]	—	0.5	0.7	41.0
8		(Not applicable in the UK)				
9	Variable remuneration	Number of identified staff	—	2	11.0	1,396.6
10		**Total variable remuneration**	**—**	**8.7**	**20.4**	**720.0**
11		Of which: cash-based	—	0.4	10.2	367.8
12		Of which: deferred	—	—	8.1	213.9
UK-13a		Of which: shares or equivalent ownership interests	—	8.3	10.2	352.2
UK-14a		Of which: deferred	—	7.9	8.1	213.9
UK-13b		Of which: share-linked instruments or equivalent non-cash instruments	—	—	—	—
UK-14b		Of which: deferred	—	—	—	—
UK-14x		Of which: other instruments	—	—	—	—
UK-14y		Of which: deferred	—	—	—	—
15		Of which: other forms	—	—	—	—
16		Of which: deferred	—	—	—	—
17	**Total remuneration (2 + 10)**		**3.9**	**13.8**	**40.4**	**1,594.3**

Note
a 'Other forms' of fixed remuneration represents an estimate for pensions and benefits during the year.

Table 99: UK REM2 - Special payments to staff whose professional activities have a material impact on institution's risk profile (identified staff) (all figures are in £m except for 'Number of identified staff')

		MB Supervisory function	MB Management function	Other senior management	Other identified staff
	Guaranteed variable remuneration awards				
1	Guaranteed variable remuneration awards - Number of identified staff	—	—	—	2.0
2	Guaranteed variable remuneration awards -Total amount	—	—	—	2.6
3	Of which guaranteed variable remuneration awards paid during the financial year, that are not taken into account in the bonus cap	—	—	—	—
	Severance payments awarded in previous periods, that have been paid out during the financial year				
4	Severance payments awarded in previous periods, that have been paid out during the financial year - Number of identified staff	—	—	—	—
5	Severance payments awarded in previous periods, that have been paid out during the financial year - Total amount	—	—	—	—
	Severance payments awarded during the financial year[a]				
6	Severance payments awarded during the financial year - Number of identified staff	—	—	—	45.0
7	Severance payments awarded during the financial year - Total amount	—	—	—	9.6
8	Of which paid during the financial year	—	—	—	7.3
9	Of which deferred	—	—	—	2.3
10	Of which severance payments paid during the financial year, that are not taken into account in the bonus cap	—	—	—	7.8
11	Of which highest payment that has been awarded to a single person	—	—	—	1.6

Note.
a The severance payments shown in row 10 are variable remuneration but in accordance with paragraph 154 of the EBA Guidelines on sound remuneration they have not been taken into account for the purposes of the calculation of the 2:1 ratio. Had the severance payments been taken into account, the 2:1 ratio would have continued to have been met for all of the individuals except for four individuals.

Appendix C – Disclosures on remuneration

Table 100: UK REM3 - Deferred remuneration (all figures are in £m)

	Deferred and retained remuneration	Total amount of deferred remuneration awarded for previous performance periods	Of which due to vest in the financial year	Of which vesting in subsequent financial years	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in the financial year	Amount of performance adjustment made in the financial year to deferred remuneration that was due to vest in future performance years	Total amount of adjustment during the financial year due to ex post implicit adjustments (i.e. changes of value of deferred remuneration due to the changes of prices of instruments)	Total amount of deferred remuneration awarded before the financial year actually paid out in the financial year	Total of amount of deferred remuneration awarded for previous performance period that has vested but is subject to retention periods
1	**MB Supervisory function**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
2	Cash-based	—	—	—	—	—	—	—	—
3	Shares or equivalent ownership interests	—	—	—	—	—	—	—	—
4	Share-linked instruments or equivalent non-cash instruments	—	—	—	—	—	—	—	—
5	Other instruments	—	—	—	—	—	—	—	—
6	Other forms	—	—	—	—	—	—	—	—
7	**MB Management function**	**25.2**	**3.0**	**22.2**	**—**	**—**	**0.8**	**3.1**	**0.6**
8	Cash-based	5.4	1.3	4.1	—	—	—	1.3	—
9	Shares or equivalent ownership interests	19.8	1.7	18.1	—	—	0.8	1.8	0.6
10	Share-linked instruments or equivalent non-cash instruments	—	—	—	—	—	—	—	—
11	Other instruments	—	—	—	—	—	—	—	—
12	Other forms	—	—	—	—	—	—	—	—
13	**Other senior management**	**58.1**	**9.4**	**48.7**	**—**	**—**	**0.5**	**9.7**	**2.1**
14	Cash-based	25.8	4.2	21.6	—	—	—	4.2	—
15	Shares or equivalent ownership interests	32.3	5.2	27.1	—	—	0.5	5.5	2.1
16	Share-linked instruments or equivalent non-cash instruments	—	—	—	—	—	—	—	—
17	Other instruments	—	—	—	—	—	—	—	—
18	Other forms	—	—	—	—	—	—	—	—
19	**Other identified staff**	**1,431.0**	**396.6**	**1,034.4**	**(0.3)**	**(1.2)**	**12.7**	**409.9**	**83.3**
20	Cash-based	620.9	171.9	449.0	—	—	—	171.9	—
21	Shares or equivalent ownership interests	810.1	224.7	585.4	(0.3)	(1.2)	12.7	238.0	83.3
22	Share-linked instruments or equivalent non-cash instruments	—	—	—	—	—	—	—	—
23	Other instruments	—	—	—	—	—	—	—	—
24	Other forms	—	—	—	—	—	—	—	—
25	**Total amount**	**1,514.3**	**409.0**	**1,105.3**	**(0.3)**	**(1.2)**	**14.0**	**422.7**	**86.0**

Appendix C – Disclosures on remuneration

Table 101: UK REM4 - Remuneration of 1 million EUR or more per year

	EUR	Identified staff that are high earners as set out in Article 450(i) CRR
1	1 000 000 to below 1 500 000	327
2	1 500 000 to below 2 000 000	124
3	2 000 000 to below 2 500 000	66
4	2 500 000 to below 3 000 000	57
5	3 000 000 to below 3 500 000	34
6	3 500 000 to below 4 000 000	13
7	4 000 000 to below 4 500 000	9
8	4 500 000 to below 5 000 000	10
9	5 000 000 to below 6 000 000	13
10	6 000 000 to below 7 000 000	7
11	7 000 000 to below 8 000 000	1
12	8 000 000 to below 9 000 000	0
13	9 000 000 to below 10 000 000	5
14	10 000 000 to below 11 000 000	1
15	11 000 000 to below 12 000 000	1

Table 102: UK REM5 - Information on remuneration of staff whose professional activities have a material impact on institution's risk profile (identified staff) (all figures are in £m except for 'Total number of identified staff')

		Management body remuneration			Business areas						
		MB Supervisory function	MB Management function	Total MB	Investment banking	Retail banking	Asset management	Corporate functions	Independent internal control functions	All other	Total
1	Total number of identified staff										1,604.4
2	Of which: members of the MB	13	2	15							
3	Of which: other senior management				1.0	2.0	—	6.2	2.0	—	
4	Of which: other identified staff				893.5	116.6	—	258.5	301.2	8.4	
5	Total remuneration of identified staff	3.9	13.8	17.7	1,206.0	88.9	—	223.8	112.9	3.1	
6	Of which: variable remuneration	—	8.7	8.7	574.4	41.0	—	94.6	30.4	—	
7	Of which: fixed remuneration	3.9	5.1	9.0	631.6	47.9	—	129.2	82.5	3.1	

Appendix D - Compliance to Pillar 3 requirements

CRR ref.	High-level summary	Compliance reference
Disclosure requirements and policies		
431 (1)	Requirement to publish Pillar 3 disclosures	Barclays publishes Pillar 3 disclosures
431 (2)	Firms with permission to use specific modelled risk methodologies	Refer pages 15 & 16 - Scope of permission for calculation approaches and Barclays' approach to managing risks section for granular information
431 (3)	Institution must have a formal policy to verify the comprehensiveness and overall appropriateness of the disclosures	Barclays has a dedicated Pillar 3 policy
431 (4)	Institution to ensure that quantitative disclosures are accompanied by a qualitative narrative and any other supplementary information where deemed appropriate	Quantitative disclosures are accompanied by a narrative to explain significant changes compared to previous disclosures
431 (5)	Explanation of ratings decision upon request	Barclays provides explanations of declined credit decisions to SMEs in writing, when required. There is also an appeals process available. In the case of larger SMEs, direct discussions between clients and Barclays relationship managers take place
Non-material, proprietary or confidential information		
432 (1)	Institutions may omit information that is not material if certain conditions are respected	Compliance with this provision is covered by Barclays' policy
432 (2)	Institutions may omit information that is proprietary or confidential if certain conditions are respected	Compliance with this provision is covered by Barclays' policy
432 (3)	Where 432 (2) apply this must be stated in the disclosures, and more general information must be disclosed	Compliance with this provision is covered by Barclays' policy
Frequency and scope of disclosure		
433	Institution shall publish the disclosure in the manner set out in Articles 433a, 433b and 433c in conjunction with article 4 (145), (146), (147), (148)	Compliance with this provision is covered by Barclays' policy. See pages 08 & 09 for basis of preparation and page 14 for scope of consolidation
433a	Specifies information to be disclosed by large institution along with frequency in conjunction with rule 2.3 of PRA rulebook.	
433b	Specifies information to be disclosed by small & non complex institution along with the frequency	
433c	Specifies information to be disclosed by other institutions along with frequency	
Means of disclosures		
434 (1)	To include disclosures in one appropriate medium, or provide clear cross -reference	Most disclosures are contained within this document. Signposting directs the reader to other publications where appropriate
434 (2)	Disclosures to be made available on websites or in any other appropriate location as an archive	Pillar 3 disclosures are published in the Bank's investor relations website
Uniform disclosure formats		
434a	PRA have developed uniform disclosure formats for publications	Barclays makes use of disclosure formats provided in Annexure K of PRA rulebook
434b	Timing and Means of Disclosures under Article 441	PS 22/21 also allows G-SIIs to disclose the information required under CRR article 441 within four months of their financial year-end and separately from Pillar 3, To align with the timing of the Basel exercise Barclays PLC G-SII Disclosure 2023 will be published on April 2024 at //home.barclays/investor-relations/reports-and-events/annual-reports/

Appendix D - Compliance to Pillar 3 requirements (continued)

Risk management objectives and policies		
435 (1) (a) 435 (1) (b) 435 (1) (c) 435 (1) (d)	Disclose information on strategies and processes; organisational structure, reporting systems and risk mitigation/hedging	Risk management strategy: page 105 Climate Risk; page 116 Credit Risk: page 119 Counterparty Credit Risk: page 133 Market Risk: page 153 Operational Risk: page 180 Treasury and Capital Risk - Capital: page 175 Treasury and Capital Risk - Liquidity: page 173 Model Risk: page 184 Compliance Risk: page 187 Reputation Risk: page 189 Legal Risk: page 191

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
435 (1) (e)	Inclusion of a declaration approved by the Board on adequacy of risk management arrangements	See page 110. This statement covers all Principal Risks
435 (1) (f)	Inclusion of a concise risk statement approved by the Board	See page 6, summary of risk profile. Also, see page 111.
435 (2)	Information on governance arrangements, including information on Board composition and recruitment, and risk committees	See page 109 for a description of the risk committees. Pages 145-149 of the Annual Report contains information on Board composition, experience and recruitment
435 (2) (a)	Number of directorships held by directors	Please see from page 145 of the 2023 Annual Report
435 (2) (b)	Recruitment policy of Board members, their experience and and expertise	
435 (2) (c)	Policy on diversity of Board membership and results against targets	
435 (2) (d)	Disclosure of whether a dedicated risk committee is in place, and number of meetings in the year	Please see page 174 of the 2023 Annual Report
435 (2) (e)	Description of information flow on risk to Board	Figure on page 109 in the risk management strategy section illustrates the reporting structure to Board committees
Scope of application		
436 (a)	Name of institution	See under 'Scope of consolidation' on page 14
436 (b)	Difference in basis of consolidation for accounting and prudential purposes, whether those entities are fully or proportionally consolidated and whether the holdings in those legal entities are deducted from own funds	Page 19 / Table 5 : LI3 Outline of the differences in the scopes of consolidation
436 (c)	Disclosure of the breakdown of assets and liabilities of the financial statements prepared in accordance with requirements on regulatory consolidation.	Page 17 / Table 3 : LI1 Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories
436 (d)	Disclosure of the reconciliation of the carrying value amounts in the financial statements under regulatory scope of consolidation and the exposure amount used for regulatory purposes.	Page 18 / Table 4 : LI2 Main sources of differences between regulatory exposure amounts and carrying values in financial statements / Explanations of differences between accounting and regulatory exposure amounts (LIA)
436 (e)	Disclosure of the breakdown of the amounts of the constituent elements of an institution's prudent valuation adjustment.	Page 46 / Table 27 : PV1 Prudent valuation adjustment
436 (f)	Disclosure of any current or expected material practice or legal impediment to the prompt transfer of own funds or repayment of liabilities between parent and subsidiaries.	None noted
436 (g)	Capital shortfalls in any subsidiaries outside of scope of consolidation	Entities outside the scope of consolidation are appropriately capitalised
436 (h)	Making use of articles on derogations from a)prudential requirements or b) liquidity requirements for individual subsidiaries/ entities	Barclays makes use of these provisions according to its waiver from PRA
Own funds		
437 437 (a) 437 (d) 437 (e) 437 (f) 437 (b) 437 (c)	Requirements regarding capital resources table	Page 25 / Table 8: Composition of regulatory capital / CC2 - Reconciliation of regulatory own funds to balance sheet in the audited financial statement Page 23 / Table 7: CC1 - Composition of regulatory own funds Standalone document: Summary of terms and conditions of own funds and eligible liabilities
Disclosure of own funds and eligible liabilities		
437a (a) 437a (b) 437a (c) 437a (d)	Disclosure of requirements regarding MREL / TLAC tables	Page 35 / Tables 19: TLAC 1 composition for G-SIBs (at resolution group level) Page 36 / Table 20: TLAC 3 - Resolution entity - Creditor ranking at legal entity level Pages 37-38 / Table 21 & 22: TLAC 2 - Material subgroup entity - Creditor ranking at legal entity level

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
Own funds requirement and risk-weighted exposure amounts		
438 (a)	Summary of institution's approach to assessing adequacy of capital levels	Page 179 / ICAAP information
438 (b)	The amount of the additional own funds requirements based on the supervisory review and evaluation process and its composition in terms of Common Equity Tier 1, additional Tier 1 and Tier 2 instruments	Page 21 / Table 6 KM1 - Key metrics
438 (c)	Result of ICAAP on demand from authorities	Page 179 / ICAAP information
438 (d)	The total risk-weighted exposure amount and the corresponding total own funds requirement	Page 28 / Table 11 OV1 - Overview of risk weighted exposure amounts
438 (e)	Requirement to disclose specialised lending and equity exposures under the simple risk weighted approach	Page 74 / Table 45 CR10 - Specialised lending and equity exposures under the simple risk weighted approach
438 (f)	Disclosure of the exposure value and risk-weighted exposure amount of own funds instruments held in relation to insurance activities that institutions do not deduct from own funds	There is no applicable data to be published in respect of this table
438 (g)	Disclosure of the supplementary own funds requirement and the capital adequacy ratio of the financial conglomerate.	There is no applicable data to be published in respect of this table
438 (h)	The variations in the risk-weighted exposure amounts of the current disclosure period compared to the immediately preceding disclosure period that result from the use of internal models, including an outline of the key drivers explaining those variations.	Pages 29 & 30 / Table 12, 13 & 14: RWEA flow statements of credit risk exposures under the IRB approach (CR8), RWEA flow statements of CCR exposure under the IMM (CCR7) and RWEA flow statements of market risk exposure under the IMA (MR2B)
Exposure to counterparty credit risk (CCR)		
439 (a)	Description of process to assign internal capital and credit limits to CCR exposures, including the methods to assign those limits to exposures to central counterparties	Pages 131-134
439 (b)	Discussion of process to secure collateral and establishing reserves	
439 (c)	Discussion of management of wrong-way exposures	
439 (d)	Disclosure of collateral to be provided (outflows) in the event of a ratings downgrade	Please see pages 343 of the 2023 Annual Report
439 (e)	Composition of collateral for CCR exposures	Page 89 / Table 60 : CCR5 Composition of collateral for CCR exposures
439 (f)	Analysis of CCR exposure by approach for derivative transactions	Page 86 / Table 55 : CCR1 Analysis of CCR exposure by approach
439 (g)	Analysis of CCR exposure by approach for securities financing transactions	
439 (h)	Transactions subject to own funds requirements for CVA risk	Page 91 / Table 63 CCR2 Transactions subject to own funds requirements for CVA risk
439 (i)	Exposures to CCPs	Page 90 / Table 62 CCR8 Exposure to CCPs
439 (j)	Disclosure of credit derivative exposures	Page 90 / Table 61 CCR6 Disclosure of credit derivative exposures
439 (k)	Estimate of Alpha, if applicable	The Alpha used by Barclays is 1.4, see page 11 ; Page 86 /Table 55 : CCR1 Analysis of CCR exposure by approach
439 (l)	Disclosure of CCR exposure by portfolio and PD range under standardised and IRB approach	Page 87/ Table 56 CCR3 Standardised approach - CCR exposures by regulatory exposure class and risk weight Page 88 - 89/ Table 57, 58 & 59 CCR4 IRB approach - CCR exposures by portfolio and PD range for respective asset class
439 (m)	Disclosure of the size of institutions on- and off-balance-sheet derivative business as calculated in accordance with Article 273a(1) or (2), as applicable.	This covers disclosure on simplified SA-CCR and OEM which is not applicable to Barclays'
Countercyclical capital buffers		
440 (a)	Geographical distribution and risk-weighted exposure amounts of relevant credit exposures	Barclays ' countercyclical buffer is currently set at 2% for UK exposures. In other jurisdictions where CCyB is being applied, Barclays does not have material relevant exposures. See page 194/Table 93 CCyB1 Countercyclical capital buffer and page 196/ Table 94 CCyB2 Amount of institution specific countercyclical capital buffer
440 (b)	Amount of the institution specific countercyclical capital buffer	
Indicators of global systemic importance		
441	Disclosure of the indicators of global systemic importance	Discussed on page 13

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
Credit risk adjustments		
442 (a)	Disclosure of bank's definitions of past due and impaired and the differences, if any, between the definitions for accounting and regulatory purposes	Pages 126 - 129 provide a complete description of credit quality measures Note 8 Credit Impairment Charges - 'Definition of default, credit impaired assets, write-offs, and interest income recognition' in the Barclays PLC Annual Report 2023.
442 (b)	Approaches for calculating credit risk adjustments	Pages 126 - 129 provide a complete description of credit quality measures
442 (c)	Information on the amount and quality of performing, non-performing and forborne exposures for loans, debt securities and off-balance-sheet exposures, including their related accumulated impairment, provisions and negative fair value changes due to credit risk and amounts of collateral and financial guarantees received	Pages 75-76/ Table 46 CR1 Performing and non-performing exposures and related provision Pages 79-84/Table 50-54 CQ1 Credit quality of forborne exposure/ CQ3 Credit quality of performing and non-performing exposure by past due days/ CQ4 Quality of non-performing exposures and related provisions/ CQ5 Credit quality of loans and advances by industry/ CQ7 Collateral obtained by taking possession and execution processes
442 (d)	Ageing analysis of accounting past due exposures	
442 (e)	Disclosure of gross carrying amounts of performing and non-performing exposure and their related provisions and the net carrying amounts and their distribution by geographical area and industry type	Barclays Non-performing loans and advances' ratio stands below 5%, hence additional NPL disclosure required in point (c) and (f) of Article 442 in templates CR2a, CQ2, CQ6 and CQ8 are not published

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
442 (f)	Changes in the stock of non-performing loans and advances and related net accumulated recoveries	Page 77/ Table 48 CR2 Changes in stock of non-performing loans and advances
442 (g)	Breakdown of loans and debt securities by residual maturities	Page 77/ Table 47 CR1A Maturity of exposures
Encumbered and unencumbered assets		
443	Disclosures on encumbered and unencumbered assets	See pages 197-201: Disclosures on asset encumbrance
Use of Standardised approach		
444 (a)	Names of the ECAIs used in the calculation of standardised approach RWAs, and reasons for any changes	Page 54/ Table 32: Relationship of long-term external credit ratings to credit quality steps under the standardised approach and Table 33 : Credit quality steps and risk weights under the standardised approach
444 (b)	Exposure classes associated with each ECAI	
444 (c)	Explanation of the process for translating external ratings into credit quality steps	
444 (d)	Mapping of external rating to credit quality steps	Issue and Issuer credit assessment are used to determine ratings in accordance with Article 139 of CRR
444 (e)	Exposure value post-credit risk mitigation, by credit quality step	Page 48/ Table 28 : CR4 Standardised - Credit risk exposure and CRM effect Page 49/ Table 29 : CR5 Standardised approach Page 87/ Table 56 CCR3 Standardised approach - CCR exposures by regulatory exposure class and risk weight
Exposure to market risk		
445	Disclosure of position risk, large exposures exceeding limits, FX, settlement and commodities risk	Page 95 / Table 66: MR1 Market risk under the standardised approach
Operational risk		
446 (a)	Disclosure of the scope of approaches used to calculate operational risk	Page 103/ Table 73: OR1 Operational risk own funds requirements and risk weighted exposure amounts Page 180 - Management of Operational risk
Disclosure of key metrics		
447 (a) 447 (b) 447 (c) 447 (d) 447 (e) 447 (f) 447 (g)	Provide an overview of regulatory metrics and ratios	Page 21/ Table 6 KM1 - Key metrics
447 (h)		Page 34/ Table 18 KM2 - Key Metrics - TLAC requirements (at resolution group level)
Exposures to interest rate risk on positions not included in the trading book		
448 (1) (a) 448 (1) (b)	Information on the impact on the Bank's economic value of equity (EVE) and net interest income (NII) from the six standardised interest rate shock scenarios	Page 45/ Table 26 : IRRBB1 Quantitative information on IRRBB
448 (1) (c)	Description of key modelling and parametric assumptions used to calculate changes in the economic value of equity and in the net interest income required under Article 448 (1)(a) and 448 (1)(b)	Page 45: IRRBB risk management objectives and policies
448 (1) (d)	Explanation of the significance of the risk measures disclosed under under Article 448 (1)(a) and 448 (1)(b)and of any significant variations of those risk measures since the previous disclosure	
448 (1) (e)	Description of how institutions define, measure, mitigate and control the interest rate risk of their non-trading book activities	
448 (1) (f)	Description of the overall risk management and mitigation strategies	
448 (1) (g)	Information on average and longest repricing maturity assigned to non-maturing deposits	
448 (2)	By way of derogation from paragraph 1 of this Article, the requirements set out in points (c) and (e)(i) to (e)(iv) of paragraph 1 of this Article for description relating to economic value of equity shall not apply to institutions that use the standardised framework	This does not apply to Barclays

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
Exposure to securitisation positions		
449 (a)	Objectives in relation to securitisation and re-securitisation activities and institutions role in the use of simple, transparent and standardised securitisations (STS)	Page 163 - 170/ SECA Qualitative disclosure requirements related to securitisation exposures
449 (b)	Type of risk by level of seniority in the relevant securitisation positions providing distinction between STS and non-STS positions	
449 (b)(i)	the risk retained in own-originated transactions	
449 (b)(ii)	the risk incurred in relation to transactions originated by third parties	
449 (c)	Approaches for calculating the risk-weighted exposure amounts to relevant securitisation position along with a distinction between STS and non-STS position	
449 (d)	List of SSPEs and types of exposure to those SSPEs, including derivative contracts	
449 (d)(i)	SSPEs which acquire exposures originated by the institutions	
449 (d)(ii)	SSPEs sponsored by the institutions	
449 (d)(iii)	SSPEs and other legal entities for which the institutions provide securitisation-related services, such as advisory, asset servicing or management services	
449 (d)(iv)	SSPEs included in the institutions' regulatory scope of consolidation	
449 (e)	List of any legal entities in relation to which the institutions have disclosed that they have provided support	
449 (f)	List of legal entities affiliated with the institutions and that invest in securitisations originated by the institutions or in securitisation positions issued by SSPEs sponsored by the institutions	
449 (g)	Summary of accounting policies for securitisation activities	
449 (h)	Names of ECAIs used for securitisations	
449 (i)	Description of Internal Assessment Approach	
449 (j)	Separately for the trading book and the non-trading book, the carrying amount of securitisation exposures, including information on transfer of significant credit risk, separately for traditional and synthetic securitisations, and for STS and non-STS transactions and broken down by type of securitisation exposures	Page 97/ Table 68 : SEC1 Securitisation exposures in the non-trading book Page 98/Table 69 : SEC2 Securitisation exposures in the trading book
449 (k)(i)	Aggregate amount of securitisation positions where institutions act as originator or sponsor and the associated risk-weighted assets and capital requirements by regulatory approaches	Page 99/ Table 70 : SEC3 Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor
449 (k)(ii)	Aggregate amount of securitisation positions where institutions act as investor and the associated risk-weighted assets and capital requirements by regulatory approaches	Page 100/ Table 71 : SEC4 Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor
449 (l)	Amount of exposures in default and the amount of the specific credit risk adjustments made by the institution during the current period, both broken down by exposure type	Page 101/ Table 72 : SEC5 Exposures securitised by the institution - Exposures in default and specific credit risk adjustments

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
Remuneration disclosures		
450	Remuneration	Appendix C contains the remuneration awards made to Barclays' Material Risk Takers. See the Directors' remuneration report (DRR) of the 2023 Annual Report for other remuneration disclosures
450 (1)	Disclosure of remuneration policy and practices for those categories of staff whose professional activities have a material impact on risk profile of the institution	Appendix C contains the remuneration policy and practices for Barclays' Material Risk Takers
450 (2)	For Large institutions - Disclosure of institutions' collective management body to be made available for public, differentiating between executive and non-executive.	Appendix C contains the remuneration awards made to Barclays' Material Risk Takers, differentiating between executive and non-executive
Leverage		
451 (1) (a) 451 (1) (b) 451 (1) (c)	Leverage ratio, and breakdown of total exposure measure, including reconciliation to financial statements, and derecognised fiduciary items	Pages 31 - 33/ Table 15 : LR1 Summary reconciliation of accounting assets and leverage ratio exposures; Table 16 : LR2 Leverage ratio common disclosure ; Table 17 : LR3 Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)
451 (1) (d) 451 (1) (e)	Description of the risk management approach to mitigate excessive leverage, and factors that impacted the leverage ratio during the year	See page 32/Table 16: LR2 Leverage ratio common disclosure
451 (1) (f)	In relation to the quarterly periods up to 31 December 2023, the leverage ratio calculated as if Article 468 of the CRR did not apply for purposes of the capital measure under Article 429(3) of Chapter 3 of the Leverage Ratio (CRR) Part	This doesn't apply to Barclays as there is there is no transitional relief
451 (1) (g)	in relation to the quarterly periods up to 31 December 2024, the leverage ratio calculated as if Article 473a of the CRR did not apply for purposes of the capital measure under Article 429(3) of Chapter 3 of the Leverage Ratio (CRR) Part	Page 32/ Table 16 : LR2 Leverage ratio common disclosure
451 (2)	LREQ firm must disclose each of the following - a) average exposure measure b) average leverage ratio c) average leverage ratio calculated as if central bank claims to be included in the total exposure measure d) countercyclical leverage ratio buffer	
451 (3)	LREQ firm must disclosure of changes in total exposure measure and tier 1 capital (leverage) over the quarter that have affected the bank's average leverage ratio	
451 (4)	Information on calculation o average exposure measure and average leverage ratio by LREQ firms	
451 (5)	Information on calculation of average exposure measure , in relation to the quarterly periods up to 1 January 2023, by LREQ firms	
Disclosure of liquidity requirement		
451a (1)	Information on liquidity coverage ratio, net stable funding ratio and liquidity risk management	Page 39/ Table 23 : LIQ1 Liquidity coverage ratio; LIQB Qualitative information on LCR
451a (2)	Information on liquidity coverage ratio	
451a (3)	Information on net stable funding ratio	Page 41/ Table 24 : LIQ2 Net stable funding ratio
451a (4)	Disclose the arrangements, systems, processes and strategies put in place to identify, measure, manage and monitor their liquidity risk	Pages 173-175/ LIQA Liquidity risk management

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
Use of the IRB approach to credit risk		
452 (a)	Permission for use of the IRB approach from authority	
452 (b)	Scope of the use of standardised and IRB approaches as well as exposure class subject to permanent partial use and to a roll-out plan	
452 (c)		
452 (c) (i)	The control mechanisms for rating systems at the different stages of model development, controls and changes	134 Management of credit risk - IRB approach
452 (c) (ii)		Page 56/ Table 35 : CR6A Scope of the use of IRB and standardised approach; CRE Qualitative disclosure requirements related to IRB approach
452 (c) (iii)		
452 (c) (iv)		
452 (d)	Functions involved in the development, approval and subsequent changes of the credit risk models	Page 15/ Table 1 : The scope of the standardised and AIRB approaches for credit and counterparty credit risk excluding CVA
452 (e)	Scope and main content of the reporting related to credit risk models	
452 (f)	Description of the internal ratings process by exposure class, including the number of key models used with respect to each portfolio and a brief discussion of the main differences between the models within the same portfolio	
452 (f)(i)		
452 (f)(ii)		
452 (f)(iii)		
452 (g)	For each exposure class, disclose the following information	Pages 57 - 73 / Table 36 - 44 : CR6 IRB approach – Credit risk exposures by exposure class and PD range for respective asset classes
452 (g)(i)	their gross on-balance-sheet exposure	
452 (g)(ii)	their off-balance-sheet exposure values prior to the relevant conversion factor	
452 (g)(iii)	their exposure after applying the relevant conversion factor and credit risk mitigation	Pages 88 - 89/ Table 57 - 59 : CCR4 IRB approach – CCR exposures by portfolio and PD range for central governments and central banks
452 (g)(iv)	input relevant for the understanding of the risk weighting and the resulting risk exposure amounts disclosed across a sufficient number of obligor grades (including default)	
452 (g)(v)	for exposure classes, in relation to which institutions have received permission to use own LGDs and conversion factors for the calculation of risk-weighted exposure amounts, and for exposures for which the institutions do not use such estimates, the values referred to in points (i) to (iv) subject to that permission	
452 (h)	Back testing of PD per exposure class	Pages 140 - 143/ Table 75 - 82 : CR9 IRB approach - Back-testing of PD per exposure class (fixed PD scale) ; Pages 144 - 151 /Table 83 - 90 : CR9.1 IRB approach - Back-testing of PD per exposure class (only for PD estimates according to Article 180(1)(f))

Appendix D - Compliance to Pillar 3 requirements (continued)

CRR ref.	High-level summary	Compliance reference
Use of credit risk mitigation techniques		
453 (a)	Policies and processes for on- and off-balance sheet netting	Pages 131 - 134/ CRC Qualitative disclosure requirements related to CRM techniques
453 (b)	Policies and processes for eligible collateral evaluation and management	
453 (c)	Description of types of collateral used by Barclays	
453 (d)	Types of guarantor and credit derivative counterparty, and their creditworthiness	
453 (e)	Disclosure of market or credit risk concentrations within risk mitigation exposures	
453 (f)	CRM techniques overview	Page 78/ Table 49 : CR3 CRM techniques overview: Disclosure of the use of credit risk mitigation techniques
453 (g)	Disclose corresponding conversion factor and credit risk mitigation techniques with and without substitution effect	Page 52/ Table 31 : CR7A IRB approach – Disclosure of the extent of the use of CRM techniques Page 48/ Table 28 : CR4 Standardised – Credit risk exposure and CRM effect
453 (h)	Exposures before and after the application of conversion factors and any associated credit risk mitigation	
453 (i)	Under standardised approach, for each asset class, disclose the risk-weighted exposure amount and the ratio between that risk-weighted exposure amount and the exposure value after applying the corresponding conversion factor and the credit risk mitigation associated with the exposure	
453 (j)	Under IRB approach,the risk-weighted exposure amount before and after recognition of the credit risk mitigation impact of credit derivatives. Disclosure to me made for each exposure class subject to permission to use own LGDs and conversion factors	Page 51/ Table 30 : CR7 IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques
Use of the Advanced Measurement Approaches to operational risk		
454	Description of the use of insurance or other risk transfer mechanisms to mitigate operational risk	This doesn't apply to Barclays
Use of internal market risk models		
455 (a) (i)	Disclosure of the characteristics of the market risk models for each sub-portfolio	Pages 154 - 160/ MRB Qualitative disclosure requirements for institutions using the IMA
455 (a) (ii)	Disclosure of the methodology and description of all-price risk measure and incremental risk charge	
455 (a) (iii)	Descriptions of stress tests applied to the sub-portfolios	
455 (a) (iv)	Methodology for back-testing and validating the models	
455 (b)	Scope of permission for use of the models	Page 16/ Table 2 - Summary of the scope of application of regulatory methodologies for CVA, market and operational risk
455 (c)	Policies and processes to determine which exposures are to be included in the trading book, and to comply with prudential valuation requirements	Pages 154 - 160/ MRB Qualitative disclosure requirements for institutions using the IMA
455 (d) 455 (d) (i)	High/Low/Mean values of the daily value-at-risk measures over the reporting period and at the end of the reporting period	Page 93 / Table 64: MR3 IMA values for trading portfolios
455 (d) (ii)	The stressed value at risk over the reporting period and at the end of the reporting period	
455 (d) (iii)	The risk numbers for incremental default and mitigation risk and for the specific risk of the correlation trading portfolio over the reporting period and at the end of the reporting period	
455 (e)	The elements of the own fund calculation	Page 95 / Table 67: MR2A Market risk under the internal Model Approach (IMA)
455 (f)	Weighted average liquidity horizons of portfolios covered by models	Page 159/ Table 91 : Market risk models selected features Page 16/ Table 2 : Summary of the scope of application of regulatory methodologies for CVA, market and operational risk
455 (g)	Comparison of end-of-day VaR measures compared with one-day changes in portfolio's value	Page 161/ Table 92 : MR4 Comparison of VaR estimates with gains/losses

Location of risk disclosures

Barclays' Risk disclosures are located across the Annual Report and Pillar 3 Report.

Location of risk disclosures (continued)

		Annual Report	Pillar 3 Report
Risk performance	• Credit risk overview and summary of performance	292	n/a
Credit risk: The risk of loss to the Group from the failure of clients, customers or counterparties, including sovereigns, to fully honour their obligations to the Group, including the whole and timely payment of principal, interest, collateral and other receivables.	• Maximum exposure and effects of netting, collateral and risk transfer	293	n/a
	• Expected Credit Losses	295	n/a
	• Movements in gross exposure and impairment allowance including provisions for loan commitments and financial guarantees	298	n/a
	• Management adjustments to models for impairment	307	n/a
	• Measurement uncertainty and sensitivity analysis	311	n/a
	• Analysis of the concentration of credit risk	320	n/a
	• The Group's approach to management and representation of credit quality	322	n/a
	• Analysis of specific portfolios and asset types	329	n/a
	• Forbearance	332	n/a
	• Analysis of debt securities	334	n/a
	• Analysis of derivatives	335	n/a
Market risk: The risk of a loss arising from potential adverse changes in the value of the Group's assets and liabilities from fluctuation in market variables including, but not limited to, interest rates, foreign exchange, equity prices, commodity prices, credit spreads, implied volatilities and asset correlations.	• Market Risk overview and summary of performance	336	92
	• Review of management measures	336	94
	• Review of regulatory measures	n/a	93
Treasury and capital risk – Liquidity: The risk that the Group is unable to meet its contractual or contingent obligations or that it does not have the appropriate amount, tenor and composition of funding and liquidity to support its assets.	• Liquidity risk overview and summary of performance	339	n/a
	• Liquidity risk stress testing	339	n/a
	• Liquidity pool	341	n/a
	• Funding structure and funding relationships	342	n/a
	• Contractual maturity of financial assets and liabilities	346	n/a
	• Asset encumbrance	n/a	197
Treasury and capital risk – Capital: The risk that the Group has an insufficient level or composition of capital to support its normal business activities and to meet its regulatory capital requirements under normal operating environments or stressed conditions (both actual and as defined for internal planning or regulatory testing purposes). This also includes the risk from the Group's pension plans.	• Capital risk overview and summary of performance	350	n/a
	• Regulatory minimum capital and leverage requirements	350	13
	• Analysis of capital resources	351	23
	• Analysis of risk weighted assets	353	27
	• Analysis of leverage ratio and exposures	354	31
	• Minimum requirement for own funds and eligible liabilities	351	35
	• Foreign exchange risk	355	43
	• Pension risk review	355	44
Treasury and capital risk – Interest rate risk in the banking book: The risk that the Group is exposed to capital or income volatility because of a mismatch between the interest rate exposures of its (non-traded) assets and liabilities.	• Interest rate risk in the banking book overview and summary of performance	357	45
	• Net interest income sensitivity	357	45
	• Analysis of equity sensitivity	358	n/a
	• Volatility of the fair value through other comprehensive income (FVOCI) portfolio in the liquidity pool	358	n/a
Operational risk: The risk of loss to the Group from inadequate or failed processes or systems, human factors or due to external events (for example, fraud) where the root cause is not due to credit or market risks.	• Operational risk overview and summary of performance	359	102
	• Operational risk profile	359	104
Model risk: The risk of the potential adverse consequences from financial assessments or decisions based on incorrect or misused model outputs and reports.	• Model risk overview and summary of performance	361	n/a
Compliance risk: The risk of detriment to customers, clients, market integrity, effective competition or Barclays from the inappropriate supply of financial services, including instances of wilful or negligent misconduct.	• Compliance risk overview and summary of performance	361	n/a
Reputation risk: The risk that an action, transaction, investment, event, decision, or business relationship will reduce trust in the Group's integrity and/or competence.	• Reputation risk overview and summary of performance	362	n/a
Legal risk: The risk of loss or imposition of penalties, damages or fines from the failure of the Group to meet its legal obligations including regulatory or contractual requirements.	• Legal risk overview and summary of performance	362	n/a

Location of risk disclosures (continued)

		Annual Report	Pillar 3 Report
Supervision and regulation	• Supervision of the Group	363	n/a
	• Global regulatory developments	364	n/a
The Group's operations, including its overseas offices, subsidiaries and associates, are subject to a significant body of rules and regulations.	• Financial regulatory framework	365	n/a
Pillar 3 Report	• Summary of risk and capital profile	n/a	6
	• Notes on basis of preparation	n/a	8
Contains extensive information on risk as well as capital management.	• Scope of application of Basel framework	n/a	10
Risk and capital position review: Provides a detailed breakdown of Barclays' regulatory capital adequacy and how this relates to Barclays' risk management.	• Group capital resources, requirements, leverage and liquidity	n/a	20
	• Analysis of credit risk	n/a	47
	• Analysis of counterparty credit risk	n/a	85
	• Analysis of market risk	n/a	92
	• Analysis of securitisation exposures	n/a	96
	• Analysis of operational risk	n/a	102

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Our 2023 suite of Reports

Barclays PLC Annual Report 2023
A detailed review of Barclays' 2023 performance with disclosures that provide useful insight and go beyond reporting requirements. The 2023 report integrates our Climate and Sustainability report, incorporating our Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Barclays PLC Pillar 3 Report 2023
A summary of our risk profile, its interaction with the Group's risk appetite, and risk management.

Barclays PLC Fair Pay Report 2023
An overview of our approach to pay, including the principles and policies of our Fair Pay agenda.

Barclays PLC Country Snapshot 2023
An overview of our global tax contribution as well as our approach to tax, including our UK tax strategy, together with our country-by-country data.

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