

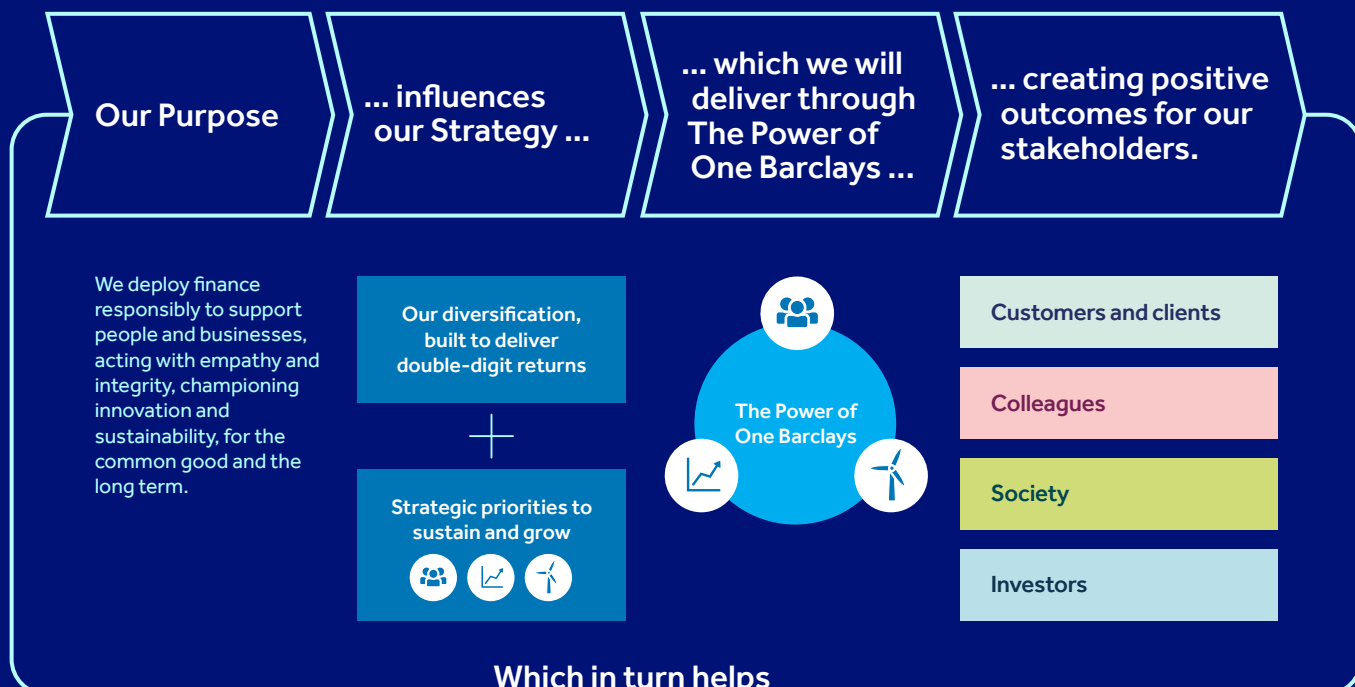


Barclays PLC  
Pillar 3 Report 2021



Barclays is a British universal bank. We support individuals and small businesses through our consumer banking services, and larger businesses and institutions through our corporate and investment banking services.

# Growing. Together.



Which in turn helps us fulfil our Purpose



Read more on why and how we are growing together on page 2 of our Annual Report at [home.barclays/annualreport](https://home.barclays/annualreport)

# Contents

## Inside this book

<b>Introduction</b>	Summary of risk profile	<b>03</b>
	Notes on basis of preparation	<b>05</b>
	Scope of application of Basel rules	<b>06</b>
<b>Risk and capital position review</b>	Analysis of treasury and capital risk	<b>15</b>
	Analysis of credit risk	<b>46</b>
	Analysis of counterparty credit risk	<b>109</b>
	Analysis of market risk	<b>125</b>
	Analysis of securitisation exposures	<b>132</b>
	Analysis of operational risk	<b>145</b>
<b>Barclays' approach to managing risks</b>	Risk management strategy, governance and risk culture	<b>149</b>
	Management of credit risk and the internal ratings-based approach	<b>159</b>
	Management of credit risk mitigation techniques and counterparty credit risk	<b>177</b>
	Management of market risk	<b>180</b>
	Management of securitisation exposures	<b>189</b>
	Management of treasury and capital risk	<b>193</b>
	Management of operational risk	<b>201</b>
	Management of model risk	<b>205</b>
	Management of conduct risk	<b>208</b>
	Management of reputation risk	<b>210</b>
Management of legal risk	<b>212</b>	
<b>Appendices</b>	Appendix A – Probabilities of Default (PD), Loss Given Default (LGD), Risk Weighted Asset (RWA) and exposure by country	<b>215</b>
	Appendix B – Analysis of impairment	<b>218</b>
	Appendix C – Countercyclical buffer	<b>219</b>
	Appendix D – Disclosure on asset encumbrance	<b>221</b>
	Appendix E – Disclosures on remuneration	<b>224</b>
	Appendix F – Compliance to Pillar 3 requirements	<b>233</b>
	Location of risk disclosures	<b>247</b>
	Index of tables	<b>250</b>



See page 247 for an index of all risk disclosures in the Pillar 3 and Annual Reports



A glossary of terms can be found at [home.barclays/investor-relations/reports- and-events/latest-financial-results/](https://home.barclays/investor-relations/reports-and-events/latest-financial-results/)

Our experience, insight and adaptability help unlock opportunities.

→ See our back cover for an example of how we are growing, together.



## 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 2021



**Taalib Shaah**  
Group Chief Risk Officer

**Tushar Morzaria**  
Group Finance Director

The Common Equity Tier 1 (CET1) ratio remained stable at 15.1% (December 2020: 15.1%) as a result of an increase in CET1 capital by £1.2bn to £47.5bn, partially offset by an increase in RWAs of £7.9bn to £314.1bn.

The average UK leverage ratio decreased to 4.9% (December 2020: 5.0%) primarily driven by an increase in average leverage exposure. The UK leverage ratio remained stable at 5.3% (December 2020: 5.3%).

# 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 250 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

15.1%

2020: 15.1%

(see page 16)

## Common Equity Tier 1 capital

£47.5bn

2020: £46.3bn

(see page 16)

## Risk weighted assets

£314.1bn

2020: £306.2bn

(see page 25)

## Average UK leverage ratio

4.9%

2020: 5.0%

## UK leverage ratio

5.3%

2020: 5.3%

## Own funds and eligible liabilities ratio

8.1%

2020: 8.2%

(see page 34)

## Average Management Value at Risk

£19m

2020: £32m

(see page 127)

## Liquidity coverage ratio

168%

2020: 162%

(see page 39)

## Summary of risk profile continued

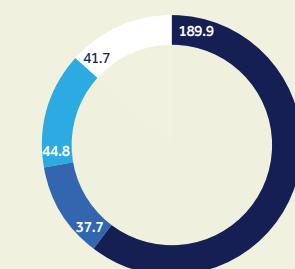
- CET1 capital increased by £1.2bn to £47.5bn as profit before tax of £8.4bn was partially offset by share buybacks, 2021 dividends and equity coupons paid and foreseen as well as pensions deficit contribution payments
- RWAs increased £7.9bn to £314.1bn primarily resulting from the recalibration of the modelled market risk stress period, increased client and trading activity within CIB and growth in mortgages within Barclays UK, partially offset by lower unsecured balances
- The average UK leverage ratio decreased to 4.9% (December 2020: 5.0%). The average leverage exposure increased to £1,227bn primarily driven by an increase in securities financing transactions (SFTs), potential future exposure (PFE) on derivatives and trading portfolio assets (TPAs)
- Credit impairment net release of £653m (2020: £4,838m charge). The net release included a reversal of £1.3bn in non-default charges, primarily reflecting the improved macroeconomic outlook. Excluding this reversal, the charge was £0.7bn, reflecting reduced unsecured lending balances and low delinquency. Economic uncertainty adjustments have been maintained firstly in respect of customers and clients who may be more vulnerable to the withdrawal of support schemes and emerging economic uncertainty, and secondly, model uncertainty which does not capture certain macroeconomic and risk parameter uncertainties. The reduction in unsecured lending balances and growth in secured balances have contributed to a decrease in the Group's loan coverage ratio to 1.6% (December 2020: 2.4%). Coverage ratios in unsecured loan portfolios remained elevated compared to pre-COVID-19 pandemic levels
- Average management VaR decreased by 41% to £19m in 2021 (2020: £32m), driven by reduced risk taking, lower market volatility and the impact of a methodology update in March 2021 which changed the historical lookback period of the VaR model from two years to one year. The methodology change has increased the responsiveness of the model to changes over time in volatility levels in the lookback period

- The liquidity pool at £291bn (December 2020: £266bn) reflects the Group's prudent approach to liquidity management. The Liquidity Coverage Ratio (LCR) remained well above the 100% regulatory requirement at 168% (December 2020: 162%), equivalent to a surplus of £116bn (December 2020: £99bn). The increase in the liquidity pool, LCR and surplus over the year was driven by continued deposit growth, borrowing from

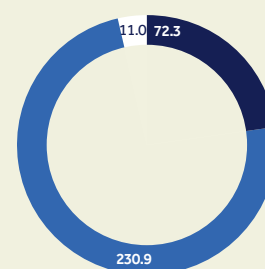
the Bank of England's Term Funding Scheme with additional incentives for SMEs (TFSME) and an increase in wholesale funding, which were partly offset by an increase in business funding consumption

➔ Please see page 151 for a discussion of risk appetite, and page 204 of the annual report for a discussion of material and emerging risks.

### RWAs increased £7.9bn to £314.1bn (December 2020: £306.2bn):



	2021 £bn	2020 £bn
■ Credit risk	189.9	194.0
■ Counterparty credit risk	37.7	35.7
■ Market risk	44.8	35.6
■ Operational risk	41.7	40.9



	2021 £bn	2020 £bn
■ Barclays UK	72.3	73.7
■ Barclays International	230.9	222.3
■ Head Office	11.0	10.2

- Credit risk RWAs decreased £4.0bn to £189.9bn primarily due to lower lending and modelled risk weight recalibrations, partially offset by growth in mortgages within Barclays UK
- Counterparty credit risk RWA increased £2.0bn to £37.7bn primarily due to an increase in trading activity within SFTs, partially offset by a reduction in derivatives
- Market risk RWAs increased £9.1bn to £44.8bn primarily driven by an increase in Stressed Value at Risk (SVaR) due to a model adjustment to reflect market movements during the COVID-19 stressed period following recalibration of the period, increased client and trading activities and methodology and policy changes
- Operational risk RWAs remained broadly stable at £41.7bn

- Barclays UK RWAs decreased £1.4bn to £72.3bn driven by a reduction in unsecured lending and the value of the ESHLA portfolio, partially offset by growth in mortgages
- Barclays International RWAs increased £8.6bn to £230.9bn primarily resulting from the recalibration of the modelled market risk stress period, and increased client and trading activity within CIB
- Barclays Head Office RWAs increased £0.8bn to £11.0bn

➔ RWAs for credit (page 46), counterparty credit (page 109), market (page 125), and operational (page 145) risks. See pages 25-28 for the main drivers of movements for each of these risk types.

## Introduction

# Notes on basis of preparation

## Pillar 3 report regulatory framework

The Pillar 3 report is prepared in accordance with the Capital Requirements Regulation and Capital Requirements Directive ('CRR' and 'CRD IV', also known as the 'CRD IV legislative package') as amended by CRR II and CRD V as at the applicable reporting date. In particular, articles 431 to 455 of the CRR specify the Pillar 3 framework requirements. The CRD IV legislative package came into force on 1 January 2014. The Pillar 3 disclosures have also been prepared in accordance with the European Banking Authority (EBA) "Guidelines on materiality, proprietary and confidentiality and on disclosure frequency under Articles 432(1), 432(2) and 433 of CRR" and the EBA "Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013".

→ See 'Application of the Basel framework' on page 07 for a more detailed description.

## Key changes in the 2021 Pillar 3 Report

### Regulatory updates

Following the withdrawal of the UK from the EU, any references to CRR as amended by CRR II mean, unless otherwise specified, CRR as amended by CRR II, as it forms part of UK law pursuant to the European Union (Withdrawal) Act 2018 and subject to the temporary transitional powers (TTP) available to UK regulators to delay or phase-in on-shoring changes to UK regulatory requirements arising at the end of the transition period until 31 March 2022, as at the applicable reporting date.

### Post year-end updates

The PRA has implemented several regulatory changes impacting the calculation of the CET1 ratio within the UK. Changes have also been implemented following the review of the UK Leverage framework and the setting of MREL requirements. All changes took effect from 1 January 2022 and will be included in Pillar 3, or prescribed location from Q1 2022.

### Capital and RWAs

On 19 July 2019, the EBA published a report on the implementation of Internal Ratings-Based approach (IRB) roadmap changes. These have subsequently been implemented by the PRA via several Policy Statements. Key changes include revisions to the criteria for definition of default, PD and LGD estimation to ensure supervisory consistency and increase transparency of IRB models.

On 14 October 2021, the PRA finalised their implementation of Basel standards through Policy Statement 22/21. The finalised requirements included the introduction of the

Standardised Approach for Counterparty Credit Risk (SA-CCR) which replaces the Current Exposure Method (CEM) for Standardised derivative exposures as a more risk sensitive approach. The PRA also confirmed the intention to revert to the previous treatment of 100% CET1 capital deduction for qualifying software assets.

### UK Leverage Ratio Framework

On 8 October 2021, the PRA published its Policy Statement on the UK leverage ratio framework. The Policy Statement confirms that UK banks will be subject to a single UK leverage ratio requirement meaning that the CRR leverage ratio will no longer apply for UK banks. Whilst largely upholding the existing framework, technical changes generally align to the Basel III standards with the exception of the qualifying claims on central banks exemption. Central bank claims can be excluded from the UK leverage ratio measure as long as they are matched by qualifying liabilities (rather than deposits). Minimum requirements for the Group remain the same with minimum requirements also expected to be applied at the individual level from 1 January 2023. Individual requirements may be replaced with a sub-consolidated measure, subject to permission from the PRA.

### MREL requirements

On 3 December 2021 the Bank of England (BoE) set new MREL requirements via an updated Statement of Policy removing the requirements under CRR, meaning that from 1 January 2022 the Group will be required to meet the higher of i) 2 times 8% Pillar 1 and 4.6% Pillar 2A requirement; and ii) 6.75% of UK leverage exposure. The Statement of Policy also confirmed that own funds instruments issued by subsidiaries cannot count towards the Group's MREL from 1 January 2022.

### Global Systemically Important Institutions (G-SII) disclosure

On 14 October 2021, the PRA published PS 22/21 allowing 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 2021 will be published on the 29th April 2022 at <https://home.barclays/investor-relations/reports-and-events/annual-reports/>.

## 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 and EAD for credit risk, counterparty credit risk and securitisations. Table 66 provides a reconciliation between the IFRS impairment provision and the regulatory impairment allowance.

## Policy, validation and sign-off

Throughout the year ended 31 December 2021, 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 F 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 financial disclosures. Specific governance committees are responsible for examining the Group's external reports and disclosures so that 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 Part Eight of the CRR and have been prepared in compliance with Barclays' internal control framework."*



**Taalib Shaah**  
Chief Risk Officer

**Tushar Morzaria**  
Group Finance Director

# Scope and application of Basel rules

This section explains the scope of application of Basel rules 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.

Table 3 and 4 shows 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.



## Scope of application of Basel rules

# Application of the Basel framework

### Overview of Pillar 3

Barclays has applied the Basel framework since its implementation. The framework is made up of three pillars:

#### 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 rules 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 CRD IV and the Capital Requirements Regulations

#### Calculation of capital for credit risk

The credit risk RWA calculation is based on an estimate of the EAD. In addition, where Barclays has the necessary regulatory permissions, it estimates PD and LGD (see page 167 and the online glossary for definitions):

- Standardised approach: assesses capital requirements using standard industry-wide risk weightings based on a detailed classification of asset types, external credit ratings and maturity
- 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, LGD and credit conversion factors are used to model risk exposures

→ See page 46 for more details on capital requirements for credit risk. Also, the Internal Ratings-Based approach to credit risk section on pages 73-83 discusses credit risk modelling in detail.

#### Calculation of capital for counterparty credit risk

CCR applies to derivative and SFT exposures. It differs from credit risk, above, 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
- The Mark to Market method (MTM, also known as Current Exposure Method) used for derivatives, which is the sum of the current market value of the instrument plus an add-on (dependent on potential future exposure (PFE)) that accounts for the potential change in the value of the contract over its residual maturity
- The Financial Collateral Comprehensive Method (FCCM), which is the net position of SFT exposures after the application of volatility adjustments prescribed by the CRR

→ See page 109 for more details on capital requirements for counterparty credit risk exposures.

#### Calculation of credit valuation adjustment capital charge

The CVA is the capital charge accounting for potential 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: 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 124 for more details on CVA

#### Calculation of capital for 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 Basel 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 125 for more details on capital requirements for market risk.

## Scope of application of Basel rules

### Application of the Basel framework continued

#### Calculation of capital for securitisation exposures

A separate regulatory framework exists for the calculation of securitisations 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)
- Standardised approach (Sec SA)
- External ratings based approach/internal assessment approach (Sec ERBA/Sec IAA)
- 1250% if the above approaches are not applicable

→ See page 132 for more details on capital requirements for securitisation exposures.

#### Calculation of capital for 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 142 for more details on capital requirements for operational risk.

#### Calculation of capital for large exposures

As at 31 December 2021, Barclays had not exceeded the large exposure limit set in CRR, and as such no capital charge applied.

#### Prudential regulation on minimum requirements

Beyond the minimum standards required by CRR, the PRA expects the Group, in common with other major UK banks and building societies, to meet a 7% CET1 ratio at the level of the consolidated group since 1 January 2016.

G-SIIs, such as the Group, are subject to a number of additional prudential requirements, including the requirement to hold additional loss-absorbing capacity and 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 risk-weighted assets (RWAs). The G-SII buffer must be met with CET1. In November 2021, the FSB published an update to its list of G-SIIs, maintaining the 1.5% G-SII buffer that applies to the Group.

The Group is also subject to a 'combined buffer requirement' consisting of (i) a capital conservation buffer, and (ii) a countercyclical capital buffer (CCyB). The CCyB is based on rates determined by the regulatory authorities in each jurisdiction in which the Group maintains exposures. In March 2020, the Financial Policy Committee (FPC) cut the UK CCyB rate to 0% with immediate effect in order to support the supply of credit expected as a result of the COVID-19 pandemic. On 13 December 2021, the FPC announced that a CCyB rate of 1% for UK exposures has been re-introduced and will be applicable from 13 December 2022.

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.

Under current PRA rules, the Pillar 2A must be met with at least 56.25% CET1 capital and no more than 25% tier 2 capital. In addition, the capital that firms use to meet their minimum requirements (Pillar 1 and Pillar 2A) cannot be counted towards meeting the combined buffer requirement.

As part of its approach to ring-fencing, the FPC established a framework to apply a firm-specific systemic risk buffer (O-SII) which can be set between 0% and 3% of RWAs and which must be met solely with CET1 capital. The O-SII replaced the previous systemic rate buffer (SRB) used to address the risk posed by systemically important institutions. The purpose of the SRB was to increase the capacity of ring-fenced bodies, such as Barclays Bank UK PLC, to absorb stress. The SRB buffer rate applicable to the Group's ring-fenced sub-group was set at 1% with effect from August 2019. In response to the economic shock from COVID-19, the PRA and FPC have held firms' SRB rates at their existing levels until reassessment in December 2023, with any future adjustment to the O-SII buffer applicable from January 2025.

The PRA may also impose a '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.

→ Please see page 290 of the Annual Report for a more complete discussion of prudential developments.

## Regulatory capital, leverage and MREL requirements

#### Minimum capital requirements

As at 31 December 2021, the Group's Overall Capital Requirement for CET1 was 11.1% comprising a 4.5% Pillar 1 minimum, a 2.5% Capital Conservation Buffer (CCB), a 1.5% G-SII buffer, a 2.6% Pillar 2A requirement and a 0% CCyB.

#### Minimum leverage requirements

The Group is subject to a UK leverage ratio requirement of 3.8% as at 31 December 2021. 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 0.0%. Although the leverage ratio is expressed in terms of T1 capital, 75% of the minimum requirement, equating to 2.4375%, needs to be met with CET1 capital. In addition, the G-SII ALRB must be covered solely with CET1 capital. The CET1 capital held against the 0.53% G-SII ALRB was £6.0bn. The leverage disclosure requirements reflected in the report are based on CRR as amended by CRR II.

#### Minimum requirements for own funds and eligible liabilities (MREL)

As at 31 December 2021, the Group was required to meet the higher of: (i) the MREL set by BoE; and (ii) the requirements in CRR as amended by CRR II, both of which have RWA and leverage measures.

As at 31 December 2021, Barclays PLC (the Parent company) had £108.2bn of own funds and eligible liabilities equating to 8% of CRR leverage exposures. Including subsidiary issuances, which are no longer eligible from 1 January 2022, own funds and eligible liabilities was £109.9bn equating to 8.1% of CRR leverage exposures. This was in excess of the Group's MREL requirement to hold £93.9bn of own funds and eligible liabilities, equating to 6.9% of CRR leverage exposures.

CET1 capital cannot be counted towards both MREL and the capital buffers, meaning that the buffers will effectively be applied above MREL requirements.

## Scope of application of Basel rules

# 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 2021. 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, see page 130 for further details)
- 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

### Significant subsidiaries

The Group's significant subsidiaries as at 31 December 2021 are Barclays Bank PLC, Barclays Bank UK Group and Barclays Bank Ireland PLC. Barclays Bank PLC's significant subsidiary disclosures are included in this document, whilst the Barclays Bank UK Group and Barclays Bank Ireland PLC Pillar 3 disclosures are published in standalone documents "Barclays Bank UK PLC Pillar 3 Report" and "Barclays Bank Ireland PLC 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 this document for Barclays Bank PLC are based on this regulatory scope of consolidation. This differs from the accounting disclosures, where Barclays Bank PLC Group relates to Barclays Bank PLC and all its subsidiaries.

#### 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. Refer to the "Barclays Bank UK PLC Pillar 3" report for further information.

#### Barclays Bank Ireland PLC

Barclays Bank Ireland PLC 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.

## Scope of application of Basel rules

# Scope of permission for calculation approaches

### Scope of permission for calculation approaches

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

Barclays 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 2021.

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

Business as at 31 December 2021	Credit risk (see Table 32)	Counterparty credit risk excl. CVA (see Tables 69)	Advanced Internal Ratings Based (AIRB) approach	Standardised approach
	RWA £m	RWA £m		
<b>Barclays UK</b>	<b>60,603</b>	<b>426</b>	<ul style="list-style-type: none"> <li>■ UK managed retail and wholesale portfolios</li> <li>■ UK cards</li> </ul>	<ul style="list-style-type: none"> <li>■ Minor legacy retail and wholesale portfolios</li> <li>■ Further Education and Local Authority portfolios</li> <li>■ High quality liquidity pool assets</li> <li>■ Barclays Partner Finance</li> <li>■ UK Wealth Portfolio</li> </ul>
<b>Barclays International</b>	<b>117,355</b>	<b>34,799</b>	<ul style="list-style-type: none"> <li>■ UK and Ireland Corporate portfolio</li> <li>■ Non-EEA high quality liquidity pool assets</li> <li>■ Most Investment Bank portfolios</li> <li>■ Germany retail credit cards</li> </ul>	<ul style="list-style-type: none"> <li>■ High quality liquidity pool assets</li> <li>■ Mainly Non-UK managed retail (including Private Bank) and wholesale portfolios (including legacy)</li> <li>■ Further Education and Local Authority portfolios</li> <li>■ US retail credit cards, joint card issuance, partner finance, secure lending, commercial payment and any recent portfolio acquisitions</li> <li>■ European Corporate Portfolio previously in the Corporate Bank</li> <li>■ Certain portfolios typically with low or no defaults, or insufficient historical data</li> </ul>
<b>Head Office</b>	<b>11,987</b>	<b>—</b>	<ul style="list-style-type: none"> <li>■ Small number of portfolios (including Italy Home Loans)</li> </ul>	<ul style="list-style-type: none"> <li>■ Small number of portfolios</li> </ul>
<b>Group Total</b>	<b>189,945</b>	<b>35,225</b>		

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

## Scope of application of Basel rules

### 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 2021

Risk Type	Risk weighted assets	Scope
Credit value adjustment	<b>2,448</b>	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	<b>44,771</b>	As explained on page 182, 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 10 on page 25 for capital requirements related to each approach and risk category. 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	<b>41,747</b>	The Group applies TSA for operational risk regulatory capital purposes.

## Scope of application of Basel rules

# 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 180.

	Carrying values as reported in published financial statements £m	Carrying values under scope of regulatory consolidation <sup>a</sup> £m	Subject to the credit risk framework £m	Subject to the CCR framework £m	Subject to the securitisation framework <sup>b</sup> £m	Subject to the market risk framework £m	Not subject to capital requirements or subject to deduction from capital <sup>c</sup> £m
<b>As at 31 December 2021</b>							
<b>Assets</b>							
Cash and balances at central banks	238,574	238,501	238,501	—	—	—	—
Cash collateral and settlement balances	92,542	91,927	13,640	47,476	—	—	30,811
Loans and advances at amortised cost	361,451	356,643	324,498	—	32,145	—	—
Reverse repurchase agreements and other similar secured lending	3,227	3,227	—	3,227	—	—	—
Trading portfolio assets	147,035	152,309	4,641	—	18	147,650	—
Financial assets at fair value through the income statement	191,972	189,288	11,426	168,834	679	177,183	—
Derivative financial instruments	262,572	262,267	—	262,070	197	257,782	—
Financial assets at fair value through other comprehensive income	61,753	61,871	61,818	—	53	—	—
Investments in associates and joint ventures	999	49	49	—	—	—	—
Goodwill and intangible assets	8,061	8,089	1,246	—	—	—	6,843
Property, plant and equipment	3,555	3,557	3,557	—	—	—	—
Current tax assets	261	261	261	—	—	—	—
Deferred tax assets	4,619	4,618	4,618	—	—	—	—
Retirement benefit assets	3,879	3,879	—	—	—	—	3,879
Other assets	3,785	4,134	4,134	—	—	—	—
<b>Total assets</b>	<b>1,384,285</b>	<b>1,380,620</b>	<b>668,388</b>	<b>481,607</b>	<b>33,093</b>	<b>582,615</b>	<b>41,533</b>
<b>Liabilities</b>							
Deposits at amortised cost	519,433	519,434	—	—	—	—	519,434
Cash collateral and settlement balances	79,371	78,391	—	58,957	—	—	19,434
Repurchase agreements and other similar secured borrowing	28,352	28,352	—	3,938	—	—	24,414
Debt securities in issue	98,867	91,791	—	—	—	—	91,791
Subordinated liabilities	12,759	12,759	—	—	—	—	12,759
Trading portfolio liabilities	54,169	57,610	—	—	—	56,952	658
Financial liabilities designated at fair value	250,960	249,780	—	175,939	—	234,266	15,514
Derivative financial instruments	256,883	256,698	—	252,900	466	252,124	3,332
Current tax liabilities	739	738	—	—	—	—	738
Deferred tax liabilities	37	37	—	—	—	—	37
Retirement benefit liabilities	311	311	—	—	—	—	311
Other liabilities	10,505	12,892	—	—	—	—	12,892
Provisions	1,688	1,683	—	—	—	—	1,683
<b>Total liabilities</b>	<b>1,314,074</b>	<b>1,310,476</b>	<b>—</b>	<b>491,734</b>	<b>466</b>	<b>543,342</b>	<b>702,997</b>

### Notes

The following points should be considered in conjunction with table LI1:

- 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 "Reverse repurchase agreements and other similar secured lending", "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.
- The column "subject to securitisation framework" includes non-trading book positions only. Trading book securitisation positions are included in the "subject to the market risk framework" column.
- 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" at least equal to the sum of those in the columns relating to the regulatory framework.

## Scope of application of Basel rules

### 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 after the application of credit conversion factors (CCF). Under the counterparty credit risk framework, the off balance sheet items principally consist of the exposure due to collateral given in SFTs.

Difference in netting rules: This reflects the effects of master netting agreements in addition to the netting permitted under International Accounting Standards (IAS) framework.

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

Differences between input balance and modelled regulatory output: The assets carrying values as defined per IFRS differ from the values used for regulatory reporting purposes, this reflects the modelling of exposures such as use of the IMM.

As at 31 December 2021	Total <sup>a</sup> €m	Subject to the credit risk framework €m	Subject to the CCR framework €m	Subject to the securitisation framework €m
<b>Assets carrying value amount under the scope of regulatory consolidation (as per template LI1)</b>	<b>1,183,088</b>	<b>668,388</b>	<b>481,607</b>	<b>33,093</b>
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	<b>(492,200)</b>	<b>—</b>	<b>(491,734)</b>	<b>(466)</b>
Total net amount under the regulatory scope of consolidation	<b>690,888</b>	<b>668,388</b>	<b>(10,127)</b>	<b>32,626</b>
Off-balance sheet amounts <sup>b</sup>	<b>1,156,344</b>	<b>126,663</b>	<b>836,647</b>	<b>1,735</b>
Differences due to different netting rules	<b>(746,180)</b>	<b>—</b>	<b>(745,982)</b>	<b>(199)</b>
Differences due to consideration of provisions	<b>2,883</b>	<b>2,883</b>	<b>—</b>	<b>—</b>
Differences between input balance and modelled regulatory output	<b>65,945</b>	<b>13,057</b>	<b>52,539</b>	<b>349</b>
Regulatory exclusion – qualifying central counterparties (CCP) trades for a client where Barclays acts as clearing member on behalf of a counterparty	<b>(187)</b>	<b>—</b>	<b>(187)</b>	<b>—</b>
Credit Enhancement Exposure for Sponsor trades	<b>5,079</b>	<b>—</b>	<b>—</b>	<b>5,079</b>
Exposures of Synthetic Securitisation trades	<b>25,413</b>	<b>—</b>	<b>—</b>	<b>25,413</b>
Other	<b>2,187</b>	<b>2,187</b>	<b>—</b>	<b>—</b>
<b>Exposure amounts considered for regulatory purposes</b>	<b>1,202,371</b>	<b>813,179</b>	<b>132,889</b>	<b>65,004</b>

#### Notes

The following points should be considered in conjunction with table LI2:

- The total column cannot be directly reconciled back to the carrying values under scope of consolidation shown in table 3 - LI1, as it excludes balances "subject to the market risk framework" and items "not subject to capital requirements or subject to deduction from capital".
- In line item "Off-balance sheet amounts", the amounts shown in the Total column, which relates to exposures pre-CCF, do not equal the sum of the amounts shown in the remaining columns, as these are post-CCF.

## Scope of application of Basel rules

### Linkage between financial statements and regulatory risk continued

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

Name of the entity	Method of accounting consolidation	Method of regulatory consolidation			Description of the entity
		Full consolidation	Proportional consolidation	Neither consolidated nor deducted <sup>a</sup> Deducted	
Barclays Insurance Services Company Limited	Fully consolidated			Y	Activities auxiliary to financial services and insurance activities
Barclays Insurance Guernsey PCC Limited	Fully consolidated			Y	Insurance, reinsurance and pension funding, except compulsory social security
Salisbury Receivables Company LLC	Fully consolidated			Y	Financial service activities, except insurance and pension funding
Barclays Insurance U.S Inc	Fully consolidated			Y	Insurance, reinsurance and pension funding, except compulsory social security
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
Vaultex UK Limited	Proportionally consolidated			Y	Activities auxiliary to financial services and insurance activities
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 Column "neither consolidated nor deducted": Exposure to and/or equity investment in these entities are risk weighted or deducted from capital subject to threshold.



## Risk and capital position review

Analysis of treasury and capital risk continued

# Analysis of treasury and capital risk

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

### Key Metrics in 2021

Common Equity Tier 1 ratio

15.1%

(see page 16)

Average UK leverage ratio

4.9%

UK leverage ratio

5.3%

CRR leverage Ratio

4.3%

(see page 31)

Liquidity Coverage ratio

168%

(see page 39)

Own funds and eligible liabilities ratio

8.1%

(see page 34)

# Risk and capital position review

## Analysis of treasury and capital risk

Table 6: KM1 – Key metrics

	As at 31.12.21 £m	As at 30.09.21 £m	As at 30.06.21 £m	As at 30.03.21 £m	As at 31.12.20 £m
<b>Available capital (amounts)</b>					
1	Common Equity Tier 1 (CET1) <sup>a</sup>	47,497	47,302	46,225	45,904
1a	Fully loaded Expected Credit Loss (ECL) accounting model <sup>b</sup>	<b>46,268</b>	45,970	44,894	43,619
2	Tier 1 <sup>c</sup>	<b>60,313</b>	60,110	57,960	57,658
2a	Fully loaded ECL accounting model Tier 1 <sup>d</sup>	<b>58,447</b>	58,142	55,981	54,718
3	Total capital <sup>e</sup>	<b>70,052</b>	70,281	68,249	68,185
3a	Fully loaded ECL accounting model total capital <sup>d</sup>	<b>68,079</b>	68,176	66,168	65,378
<b>Risk-weighted assets (amounts)</b>					
4	Total risk-weighted assets (RWA) <sup>a</sup>	<b>314,136</b>	307,464	306,424	313,356
4a	Fully loaded ECL accounting model total RWA <sup>b</sup>	<b>313,876</b>	307,214	306,177	312,636
<b>Risk-based capital ratios as a percentage of RWA</b>					
5	Common Equity Tier 1 ratio (%) <sup>a</sup>	<b>15.1%</b>	15.4%	15.1%	14.6%
5a	Fully loaded ECL accounting model Common Equity Tier 1 ratio (%) <sup>b</sup>	<b>14.7%</b>	15.0%	14.7%	14.0%
6	Tier 1 ratio (%) <sup>a,c</sup>	<b>19.2%</b>	19.6%	18.9%	18.4%
6a	Fully loaded ECL accounting model Tier 1 ratio (%) <sup>b,d</sup>	<b>18.6%</b>	18.9%	18.3%	17.5%
7	Total capital ratio (%) <sup>a,c</sup>	<b>22.3%</b>	22.9%	22.3%	21.8%
7a	Fully loaded ECL accounting model total capital ratio (%) <sup>b,d</sup>	<b>21.7%</b>	22.2%	21.6%	20.9%
<b>Additional CET1 buffer requirements as a percentage of RWA</b>					
8	Capital conservation buffer requirement (%)	<b>2.5%</b>	2.5%	2.5%	2.5%
9	Countercyclical buffer requirement (%)	<b>0.0%</b>	0.0%	0.0%	0.0%
10	Bank G-SIB and/or D-SIB additional requirements (%)	<b>1.5%</b>	1.5%	1.5%	1.5%
11	Total of bank CET1 specific buffer requirements (%) (row 8 + 9 + 10)	<b>4.0%</b>	4.0%	4.0%	4.0%
12	CET1 available after meeting the bank's minimum capital requirements (%)	<b>10.6%</b>	10.9%	10.6%	10.1%
<b>CRR leverage ratio<sup>e,f</sup></b>					
13	Total CRR leverage ratio exposure measure	<b>1,354,284</b>	1,368,259	1,334,929	1,320,628
14	Fully loaded CRR leverage ratio (%)	<b>4.3%</b>	4.2%	4.2%	4.1%
<b>Average UK leverage ratio (Transitional)<sup>g,h,i</sup></b>					
13a	Total average UK leverage ratio exposure measure	<b>1,227,134</b>	1,199,774	1,191,986	1,174,887
14a	Transitional average UK leverage ratio (%)	<b>4.9%</b>	4.9%	4.8%	4.9%
<b>UK leverage ratio (Transitional)<sup>g,h</sup></b>					
13b	Total UK leverage ratio exposure measure	<b>1,135,997</b>	1,160,983	1,153,570	1,145,413
14b	Transitional UK leverage ratio (%)	<b>5.3%</b>	5.1%	5.0%	5.0%
<b>Liquidity Coverage Ratio</b>					
15	Total HQLA	<b>285,272</b>	283,628	280,079	280,175
16	Total net cash outflows	<b>169,342</b>	176,308	172,528	173,490
17	LCR ratio (%)	<b>168%</b>	161%	162%	161%

**Notes**

- a CET1 capital and RWAs are calculated applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.
- b Fully loaded CET1 capital and RWAs are calculated without applying the transitional arrangements of the CRR as amended by CRR II.
- c Transitional Tier 1 and Total capital include AT1 and T2 capital that is calculated applying the grandfathering of CRR and CRR II non-compliant capital instruments.
- d Fully loaded Tier 1 and Total capital include AT1 and T2 capital that is calculated without applying the grandfathering of CRR and CRR II non-compliant capital instruments.
- e Fully loaded CRR leverage ratio is calculated without applying the transitional arrangements of the CRR as amended by CRR II.
- f The difference between CRR leverage ratio and UK leverage ratio is driven by the exclusion of qualifying central bank claims and Bounce Back Loans from the UK leverage exposure.
- g Transitional UK leverage ratios are calculated applying the IFRS 9 transitional arrangements and in line with the PRA Handbook.
- h Fully loaded average UK leverage ratio was 4.8%, with £1,226bn of leverage exposure. Fully loaded UK leverage ratio was 5.2%, with £1,135bn of leverage exposure. Fully loaded UK leverage ratios are calculated without applying the transitional arrangements of the PRA Handbook.
- i 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.

The CET1 ratio was stable at 15.1% (December 2020: 15.1%).

- CET1 capital increased by £1.2bn to £47.5bn as profit before tax of £8.4bn was partially offset by share buybacks, 2021 dividends and equity coupons paid and foreseen as well as pensions deficit contribution payments
- RWAs increased £7.9bn to £314.1bn primarily resulting from the recalibration of the modelled market risk stress period, increased client and trading activity within CIB and growth in mortgages within Barclays UK, partially offset by lower unsecured balances

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 7: CC1 – Composition of Regulatory Capital**

This table shows the components of regulatory capital presented on both a transitional and fully loaded basis as at 31 December 2021.

	Ref <sup>†</sup>	Barclays Group		Barclays Bank PLC	
		As at 31.12.21		As at 31.12.21	
		Transitional position €m	Fully loaded position €m	Transitional position €m	Fully loaded position €m
<b>Common Equity Tier 1 capital: instruments and reserves</b>					
1	a				
		4,536	4,536	2,343	2,343
2	b	50,657	50,657	36,826	36,826
3	c	1,770	1,770	(1,236)	(1,236)
		(698)	(698)	(223)	(223)
		345	345	217	217
6		<b>56,610</b>	<b>56,610</b>	<b>37,927</b>	<b>37,927</b>
<b>Common Equity Tier 1 capital: regulatory adjustments</b>					
7		(1,585)	(1,585)	(1,095)	(1,095)
8	d,e	(3,920)	(3,920)	(95)	(95)
9	f,e, g <sup>a</sup>	(2,884)	(2,884)	(14)	(14)
10	h	(1,028)	(1,028)	(785)	(785)
11	i	852	852	624	624
14	j	892	892	804	804
15	k,g <sup>a</sup>	(2,619)	(2,619)	(2,565)	(2,565)
16		(50)	(50)	—	—
19		—	—	(9,876)	(9,914)
22		—	—	(1,173)	(1,311)
23		—	—	(860)	(940)
25		—	—	(311)	(369)
		1,229	—	376	—
28		<b>(9,113)</b>	<b>(10,342)</b>	<b>(13,799)</b>	<b>(14,351)</b>
29		<b>47,497</b>	<b>46,268</b>	<b>24,128</b>	<b>23,576</b>

**Notes**

† The references (a) – (p) identify balance sheet components in Table 8 & 8a: CC2 – Reconciliation of regulatory capital to balance sheet on pages 20 & 21 which are used in the calculation of regulatory capital.

a 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.

b Barclays Group of which static €638m, of which modified €591m; Barclays Bank PLC of which static €240m, of which modified €136m.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 7: CC1 – Composition of Regulatory Capital – continued**

	Ref <sup>a</sup>	Barclays Group		Ref <sup>a</sup>	Barclays Bank PLC		
		As at 31.12.21			As at 31.12.21		
		Transitional position £m	Fully loaded position £m		Transitional position £m	Fully loaded position £m	
<b>Additional Tier 1 capital: instruments</b>							
30							
30	Directly issued qualifying additional Tier 1 instruments plus related stock surplus	l	12,259	12,259	m	9,692	9,692
31	Of which: classified as equity under applicable accounting standards	l	12,259	12,259	m	9,692	9,692
33	Directly issued capital instruments subject to phase-out from additional Tier 1		—	—	b,n,o	789	—
34	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	m,n	637	—		—	—
35	Of which: instruments issued by subsidiaries subject to phase out	m,n	789	—		—	—
36	<b>Additional Tier 1 capital before regulatory adjustments</b>		<b>12,896</b>	<b>12,259</b>		<b>10,481</b>	<b>9,692</b>
<b>Additional Tier 1 capital: regulatory adjustments</b>							
37	Investments in own additional Tier 1 instruments		(80)	(80)		(40)	—
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation		—	—	k	(1,974)	(1,974)
43	<b>Total regulatory adjustments to additional Tier 1 capital</b>		<b>(80)</b>	<b>(80)</b>		<b>(2,014)</b>	<b>(1,974)</b>
44	<b>Additional Tier 1 capital (AT1)</b>		<b>12,816</b>	<b>12,179</b>		<b>8,467</b>	<b>7,718</b>
45	<b>Tier 1 capital (T1 = CET1 + AT1)</b>		<b>60,313</b>	<b>58,447</b>		<b>32,595</b>	<b>31,294</b>
<b>Tier 2 capital: instruments and provisions</b>							
46	Directly issued qualifying Tier 2 instruments plus related stock surplus	m	8,713	8,713	o	8,191	8,399
47	Directly issued capital instruments subject to phase-out from Tier 2		—	—	o	164	—
47a	Directly issued capital instruments grandfathered under CRR II				o	547	—
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	m	1,113	677		—	—
49	Of which: instruments issued by subsidiaries subject to phase out	m	164	—		—	—
49a	Of which: instruments issued by subsidiaries grandfathered under CRR II	m	547	—		—	—
50	Provisions		73	402		—	91
51	<b>Tier 2 capital before regulatory adjustments</b>		<b>9,899</b>	<b>9,792</b>		<b>8,902</b>	<b>8,490</b>
<b>Tier 2 capital: regulatory adjustments</b>							
52	Investments in own Tier 2 instruments		(160)	(160)		(160)	(160)
55	Significant investments in the capital and other TLAC liabilities of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)		—	—	p	(3,183)	(3,183)
57	<b>Total regulatory adjustments to Tier 2 capital</b>		<b>(160)</b>	<b>(160)</b>		<b>(3,343)</b>	<b>(3,343)</b>
58	<b>Tier 2 capital (T2)</b>		<b>9,739</b>	<b>9,632</b>		<b>5,559</b>	<b>5,147</b>
59	<b>Total regulatory capital (TC = T1 + T2)</b>		<b>70,052</b>	<b>68,079</b>		<b>38,154</b>	<b>36,441</b>

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 7: CC1 – Composition of regulatory capital – continued**

	Barclays Group				Barclays Bank PLC						
	Ref <sup>1</sup>	As at 31.12.21		As at 31.12.21		Ref <sup>2</sup>	As at 31.12.21		As at 31.12.21		
		Transitional position	Fully loaded position	Transitional position	Fully loaded position		Transitional position	Fully loaded position			
		£m	£m			£m	£m			£m	£m
60	<b>Total risk weighted assets</b>	<b>314,136</b>	<b>313,876</b>			<b>185,467</b>	<b>184,991</b>				
	<b>Capital ratios and buffers</b>										
61	Common Equity Tier 1 (as a percentage of risk-weighted assets)	15.1%	14.7%			13.0%	12.7%				
62	Tier 1 (as a percentage of risk-weighted assets)	19.2%	18.6%			17.6%	16.9%				
63	Total capital (as a percentage of risk-weighted assets)	22.3%	21.7%			20.6%	19.7%				
64	Institution-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss absorbency requirement, expressed as a percentage of risk-weighted assets)	4.0%	4.0%			2.5%	2.5%				
65	<i>Of which: capital conservation buffer requirement</i>	2.5%	2.5%			2.5%	2.5%				
66	<i>Of which: countercyclical buffer requirement</i>	0.0%	0.0%			0.0%	0.0%				
67	<i>Of which: higher loss absorbency requirement</i>	1.5%	1.5%			0.0%	0.0%				
68	Common Equity Tier 1 (as a percentage of risk-weighted assets) available after meeting the bank's minimum capital requirements	10.6%	10.2%			8.5%	8.2%				
	<b>Amounts below the thresholds for deduction (before risk weighting)</b>										
72	Non-significant investments in the capital and other TLAC liabilities of other financial entities	3,132	3,132			2,553	2,553				
73	Significant investments in the common stock of financial entities	880	880			3,518	3,480				
75	Deferred tax assets arising from temporary differences (net of related tax liability)	3,545	3,826			1,276	1,369				
	<b>Applicable caps on the inclusion of provisions in Tier 2</b>										
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	73	402			—	91				
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	835	839			404	405				
	<b>Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2018 and 1 Jan 2022)</b>										
82	Current cap on AT1 instruments subject to phase-out arrangements	926	—			926	—				
84	Current cap on T2 instruments subject to phase out arrangements	277	—			277	—				

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 8: CC2 – Reconciliation of regulatory capital to balance sheet**

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.

Barclays Group					
	Ref <sup>†</sup>	Accounting balance sheet per published financial statements €m	Deconsolidation of insurance/other entities €m	Consolidation of banking associates/other entities €m	Balance sheet per regulatory scope of consolidation €m
<b>As at 31 December 2021</b>					
<b>Assets</b>					
Cash and balances at central banks		238,574	(73)	—	238,501
Cash collateral and settlement balances		92,542	—	(615)	91,927
Loans and advances at amortised cost		361,451	(5,000)	192	356,643
Reverse repurchase agreements and other similar secured lending		3,227	—	—	3,227
Trading portfolio assets		147,035	—	5,274	152,309
Financial assets at fair value through the income statement		191,972	(83)	(2,601)	189,288
Derivative financial instruments		262,572	—	(305)	262,267
Financial assets at fair value through other comprehensive income		61,753	—	118	61,871
Investments in subsidiaries, associates and joint ventures	e	999	162	(1,112)	49
Goodwill and intangible assets		8,061	—	28	8,089
- Of which: goodwill	d	3,893	—	27	3,920
- Of which: other intangibles (excluding MSRs)	f	4,168	—	1	4,169
Property, plant and equipment		3,555	—	2	3,557
Current tax assets		261	—	—	261
Deferred tax assets	g,h	4,619	(1)	—	4,618
Retirement benefit assets	k	3,879	—	—	3,879
Other assets		3,785	328	21	4,134
<b>Total assets</b>		<b>1,384,285</b>	<b>(4,667)</b>	<b>1,002</b>	<b>1,380,620</b>
<b>Liabilities</b>					
Deposits at amortised cost		519,433	1	—	519,434
Cash collateral and settlement balances		79,371	—	(980)	78,391
Repurchase agreements and other similar secured borrowing		28,352	—	—	28,352
Debt securities in issue		98,867	(7,076)	—	91,791
Subordinated liabilities	m	12,759	—	—	12,759
Trading portfolio liabilities		54,169	—	3,441	57,610
Financial liabilities designated at fair value		250,960	—	(1,180)	249,780
Derivative financial instruments		256,883	—	(185)	256,698
Current tax liabilities		739	(3)	2	738
Deferred tax liabilities	g	37	—	—	37
Retirement benefit liabilities		311	—	—	311
Other liabilities		10,505	2,362	25	12,892
Provisions		1,688	(5)	—	1,683
<b>Total liabilities</b>		<b>1,314,074</b>	<b>(4,721)</b>	<b>1,123</b>	<b>1,310,476</b>
<b>Equity</b>					
Called up share capital and share premium		4,536	—	—	4,536
- Of which: amount eligible for CET1	a	4,536	—	—	4,536
Other equity instruments	l	12,259	—	—	12,259
Other reserves	c,i,j	1,770	26	—	1,796
Retained earnings	b	50,657	28	(121)	50,564
Total equity excluding non-controlling interests		69,222	54	(121)	69,155
Non-controlling interests	n	989	—	—	989
<b>Total equity</b>		<b>70,211</b>	<b>54</b>	<b>(121)</b>	<b>70,144</b>
<b>Total liabilities and equity</b>		<b>1,384,285</b>	<b>(4,667)</b>	<b>1,002</b>	<b>1,380,620</b>

**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 17.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 8a: CC2 – Reconciliation of regulatory capital to balance sheet for significant subsidiary**
**Barclays Bank PLC**

	Ref†	Accounting balance sheet per published financial statements Em	Consolidation of regulatory consolidated entities Em	Balance sheet per regulatory scope of consolidation Em
<b>As at 31 December 2021</b>				
<b>Assets</b>				
Cash and balances at central banks		144,964	—	144,964
Cash collateral and settlement balances		75,571	(134)	75,437
Loans and advances at amortised cost	p	199,782	2,949	202,731
Reverse repurchase agreements and other similar secured lending		4,982	—	4,982
Trading portfolio assets		96,724	—	96,724
Financial assets at fair value through the income statement		236,577	(471)	236,106
Derivative financial instruments		234,409	—	234,409
Financial assets at fair value through other comprehensive income		44,163	—	44,163
Investments in subsidiaries	k	19,134	(4,520)	14,614
Investments in associates and joint ventures	l	12	—	12
Goodwill and intangible assets		109	—	109
- Of which: goodwill	d	95	—	95
- Of which: other intangibles (excluding MSRs)	e	14	—	14
Property, plant and equipment		128	—	128
Current tax assets		671	12	683
Deferred tax assets	f,g	1,679	—	1,679
Retirement benefit assets	j	3,825	—	3,825
Other assets		1,941	—	1,941
<b>Total assets</b>		<b>1,064,671</b>	<b>(2,164)</b>	<b>1,062,507</b>
<b>Liabilities</b>				
Deposits at amortised cost		286,761	(1,778)	284,983
Cash collateral and settlement balances		56,419	(134)	56,285
Repurchase agreements and other similar secured borrowing		29,202	—	29,202
Debt securities in issue		32,585	—	32,585
Subordinated liabilities	o	31,875	—	31,875
Trading portfolio liabilities		50,116	—	50,116
Financial liabilities designated at fair value		291,062	(471)	290,591
Derivative financial instruments		227,991	(2)	227,989
Current tax liabilities		392	2	394
Deferred tax liabilities	f	6	—	6
Retirement benefit liabilities		104	—	104
Other liabilities		4,597	2	4,599
Provisions		699	—	699
<b>Total liabilities</b>		<b>1,011,809</b>	<b>(2,381)</b>	<b>1,009,428</b>
<b>Equity</b>				
Called up share capital and share premium		2,348	—	2,348
- Of which: amount eligible for CET1	a	2,343	—	2,343
- Of which: amount eligible for AT1	n	5	—	5
Other equity instruments	m	14,400	—	14,400
Other reserves	c,h,i	(1,236)	(9)	(1,245)
Retained earnings	b	37,350	226	37,576
Total equity excluding non-controlling interests		52,862	217	53,079
<b>Total equity</b>		<b>52,862</b>	<b>217</b>	<b>53,079</b>
<b>Total liabilities and equity</b>		<b>1,064,671</b>	<b>(2,164)</b>	<b>1,062,507</b>

**Note**

† The references (a) – (p) identify balance sheet components that are used in the calculation of regulatory capital in Table 7: Composition of regulatory capital on page 17.

## Risk and capital position review

### Analysis of treasury and capital risk continued

#### IFRS 9 – Transitional capital arrangements

On 1 January 2018, IFRS 9 transitional capital arrangements were implemented by Regulation (EU) 2017/2395. Barclays elected to apply the transitional arrangements at both consolidated and individual entity levels and will disclose both transitional and fully loaded CET1 ratios until the end of the transitional period. On 27 June 2020, CRR was further amended to extend the transitional period by two years and to introduce a new modified calculation.

The transitional arrangements, implemented under a modified static approach, allow for transitional relief on the "day 1" impact on adoption of IFRS 9 (static element) and for the increase in provisions between "day 1" and the reporting date (modified element), subject to eligibility.

The transitional relief applied to the static element is phased out over a 5-year period with 95% applicable for 2018; 85% for 2019; 70% for 2020; 50% for 2021; 25% for 2022 and with no transitional relief from 2023.

The transitional relief applied to the modified element for increases between "day 1" and 31 December 2019 is phased out in line with the static element. From 27 June 2020, under new legislation, the transitional relief applied to the modified element for increases between 1 January 2020 and the reporting date is phased out over a 5 year period with 100% applicable for 2020 and 2021; 75% for 2022; 50% for 2023; 25% for 2024 and with no transitional relief from 2025.

For the static element, Stage 1, Stage 2 and Stage 3 provisions are eligible for transition, whereas for the modified elements, Stage 3 provisions are excluded.

Total increases in impairment allowances as a result of IFRS 9, net of tax, decreases shareholders' equity through retained earnings and decreases standardised RWAs due to the increase in impairment being offset against the standardised Credit Risk exposures. This is somewhat reversed by the transitional relief applied on eligible impairment.

Separate calculations are performed for standardised and advanced Internal Ratings Based (AIRB) portfolios, reflecting the different ways these frameworks take account of provisions.

Under the standardised approach, increases in provisions for both the static and modified elements are eligible for transition. When recalculating the requirements in CRR, as amended by CRR II, under the standardised approach, a risk weight of 100% is assigned to the eligible impairment.

For AIRB exposures, the calculation of capital takes account of the expected loss via a comparison with the impairment allowances. Where regulatory expected losses exceed impairment allowances, the shortfall is deducted from CET1 capital. Where the impairment allowance is higher than expected loss, the excess is added back to tier 2 capital and capped at an amount of 0.6% of AIRB RWAs. For both the static and modified elements, provisions are only eligible for transitional relief to the extent that they exceed regulatory expected loss.

The deferred tax assets (DTAs) created from the increase of impairment are also accounted for in the CET1 ratio. When DTAs arising from temporary differences are above the 10% CET1 capital threshold, any excess above the threshold is deducted and those below the threshold are risk weighted at 250% up to the point they reach threshold. DTAs that rely on future profitability excluding temporary differences are deducted from CET1 capital. To the extent that DTAs have arisen as a result of increases in eligible impairment, the impacts may also be reversed by the transitional relief applied.



## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 9: IFRS 9/Article 468-FL – 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, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR<sup>a</sup>**

Barclays Group		As at 31.12.21	As at 30.09.21	As at 30.06.21	As at 31.03.21	As at 31.12.20
		€m	€m	€m	€m	€m
<b>Available capital (amounts)</b>						
1	CET1 capital <sup>b</sup>	<b>47,497</b>	47,302	46,225	45,904	46,296
2	CET1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>46,268</b>	45,970	44,894	43,619	43,740
3	Tier 1 capital <sup>c</sup>	<b>60,313</b>	60,110	57,960	57,658	58,034
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>59,084</b>	58,778	56,629	55,373	55,478
5	Total capital <sup>c</sup>	<b>70,052</b>	70,281	68,249	68,185	67,660
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>69,152</b>	69,373	67,410	66,700	65,944
<b>Risk-weighted assets (amounts)</b>						
7	Total risk-weighted assets <sup>b</sup>	<b>314,136</b>	307,464	306,424	313,356	306,203
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>313,876</b>	307,214	306,177	312,636	305,314
<b>Capital ratios</b>						
9	CET1 (as a percentage of risk exposure amount) <sup>b</sup>	<b>15.1%</b>	15.4%	15.1%	14.6%	15.1%
10	CET1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>14.7%</b>	15.0%	14.7%	14.0%	14.3%
11	Tier 1 (as a percentage of risk exposure amount) <sup>b,c</sup>	<b>19.2%</b>	19.6%	18.9%	18.4%	19.0%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>18.8%</b>	19.1%	18.5%	17.7%	18.2%
13	Total capital (as a percentage of risk exposure amount) <sup>b,c</sup>	<b>22.3%</b>	22.9%	22.3%	21.8%	22.1%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>22.0%</b>	22.6%	22.0%	21.3%	21.6%
<b>Leverage ratio</b>						
15	Leverage ratio total exposure measure	<b>1,354,284</b>	1,368,259	1,334,929	1,320,628	1,254,157
16	Leverage ratio <sup>d</sup>	<b>4.3%</b>	4.2%	4.2%	4.1%	4.4%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>4.3%</b>	4.3%	4.2%	4.1%	4.4%

#### Notes

- a As at 31 December 2021, the Group had not elected to apply the temporary treatment specified in Article 468 of the CRR, amended by Regulation EU 2020/873, resulting in the Group's capital and leverage ratios reflecting the full impact of unrealised gains and losses measured at fair value through other comprehensive income.
- b Transitional CET1 capital and RWAs are calculated applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.
- c Transitional T1 and Total capital are calculated applying the transitional arrangements of the CRR as amended by CRR II. This includes the grandfathering of CRR and CRR II non-compliant capital instruments and IFRS 9 transitional arrangement.
- d Fully loaded CRR leverage ratio is calculated without applying the transitional arrangements of the CRR as amended by CRR II.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 9a: IFRS 9-FL – IFRS 9/Article 468-FL – Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR<sup>a</sup> for significant subsidiary**

Barclays Bank PLC		As at 31.12.21	As at 30.06.21	As at 31.12.20
		€m	€m	€m
<b>Available capital (amounts)</b>				
1	CET1 capital <sup>b</sup>	<b>24,128</b>	24,538	25,227
2	CET1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>23,576</b>	23,860	24,081
3	Tier 1 capital <sup>c</sup>	<b>32,595</b>	31,392	32,172
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>32,043</b>	30,714	31,026
5	Total capital <sup>c</sup>	<b>38,154</b>	37,571	37,493
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>37,693</b>	37,096	36,801
<b>Risk-weighted assets (amounts)</b>				
7	Total risk-weighted assets <sup>b</sup>	<b>185,467</b>	176,898	178,156
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>184,991</b>	176,373	177,295
<b>Capital ratios</b>				
9	CET1 (as a percentage of risk exposure amount) <sup>b</sup>	<b>13.0%</b>	13.9%	14.2%
10	CET1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>12.7%</b>	13.5%	13.6%
11	Tier 1 (as a percentage of risk exposure amount) <sup>b,c</sup>	<b>17.6%</b>	17.7%	18.1%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>17.3%</b>	17.4%	17.5%
13	Total capital (as a percentage of risk exposure amount) <sup>b,c</sup>	<b>20.6%</b>	21.2%	21.0%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>20.4%</b>	21.0%	20.8%
<b>Leverage ratio</b>				
15	Leverage ratio total exposure measure	<b>881,464</b>	882,543	826,371
16	Leverage ratio <sup>c</sup>	<b>3.7%</b>	3.6%	3.9%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	<b>3.6%</b>	3.5%	3.8%

#### Notes

- a As at 31 December 2021, Barclays Bank PLC had not elected to apply the temporary treatment specified in Article 468 of the CRR, amended by Regulation EU 2020/873, resulting in the Group's capital and leverage ratios reflecting the full impact of unrealised gains and losses measured at fair value through other comprehensive income.
- b Transitional CET1 capital and RWAs are calculated applying the IFRS 9 transitional arrangements of the CRR as amended by CRR II.
- c Transitional T1, total capital and leverage are calculated applying the transitional arrangements of the CRR as amended by CRR II. This includes the grandfathering of CRR and CRR II non-compliant capital instruments and IFRS 9 transitional arrangement.

## Risk and capital position review

### 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		Counterparty credit risk				Market risk		Operational risk	Total RWAs
	Std €m	AIRB €m	Std €m	AIRB €m	Settlement risk €m	CVA €m	Std €m	IMA €m		
<b>As at 31 December 2021</b>										
Barclays UK	7,195	53,408	426	—	—	138	100	—	11,022	72,289
<i>Corporate and Investment Bank</i>	29,420	64,416	15,223	19,238	105	2,289	17,306	27,308	25,359	200,664
<i>Consumer, Cards and Payments</i>	20,770	2,749	215	18	—	21	—	57	6,391	30,221
Barclays International	50,190	67,165	15,438	19,256	105	2,310	17,306	27,365	31,750	230,885
Head Office	4,733	7,254	—	—	—	—	—	—	(1,025)	10,962
<b>Barclays Group</b>	<b>62,118</b>	<b>127,827</b>	<b>15,864</b>	<b>19,256</b>	<b>105</b>	<b>2,448</b>	<b>17,406</b>	<b>27,365</b>	<b>41,747</b>	<b>314,136</b>
<b>As at 31 December 2020</b>										
Barclays UK	7,360	54,340	394	—	—	136	72	—	11,359	73,661
<i>Corporate and Investment Bank</i>	24,660	73,792	12,047	20,280	246	2,351	13,123	22,363	23,343	192,205
<i>Consumer, Cards and Payments</i>	19,754	3,041	177	45	—	31	—	71	6,996	30,115
Barclays International	44,414	76,833	12,224	20,325	246	2,382	13,123	22,434	30,339	222,320
Head Office	4,153	6,869	—	—	—	—	—	—	(800)	10,222
<b>Barclays Group</b>	<b>55,927</b>	<b>138,042</b>	<b>12,618</b>	<b>20,325</b>	<b>246</b>	<b>2,518</b>	<b>13,195</b>	<b>22,434</b>	<b>40,898</b>	<b>306,203</b>

**Table 10a: RWAs by risk type and business for significant subsidiary**

This table shows RWAs by risk type.

	Credit risk		Counterparty credit risk				Market risk		Operational risk	Total RWAs
	Std €m	AIRB €m	Std €m	AIRB €m	Settlement risk €m	CVA €m	Std €m	IMA €m		
<b>As at 31 December 2021</b>										
<b>Barclays Bank PLC</b>	<b>40,900</b>	<b>59,380</b>	<b>15,908</b>	<b>15,343</b>	<b>63</b>	<b>1,862</b>	<b>8,239</b>	<b>26,588</b>	<b>17,184</b>	<b>185,467</b>
<b>As at 31 December 2020</b>										
<b>Barclays Bank PLC</b>	36,568	67,975	11,831	16,799	54	2,203	6,175	20,353	16,198	178,156

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 11: OV1 – Overview of RWAs by risk type and capital requirements**

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

	RWA		Minimum Capital Requirements	
	As at 31.12.21 £m	As at 31.12.20 £m	As at 31.12.21 £m	As at 31.12.20 £m
1 Credit risk (excluding counterparty credit risk) (CCR)	<b>166,622</b>	171,648	<b>13,330</b>	13,732
2 Of which standardised approach	<b>55,764</b>	51,194	<b>4,461</b>	4,096
3 Of which the foundation IRB (FIRB) approach	—	—	—	—
4 Of which the advanced IRB (AIRB) approach	<b>110,858</b>	120,454	<b>8,869</b>	9,636
5 Of which Equity IRB under the Simple risk-weight or the internal models approach	—	—	—	—
6 CCR	<b>37,491</b>	35,359	<b>2,999</b>	2,829
7 Of which mark to market	<b>2,732</b>	1,974	<b>219</b>	158
8 Of which original exposure	—	—	—	—
9 Of which standardised approach	—	—	—	—
9a Of which financial collateral comprehensive method	<b>6,623</b>	4,270	<b>529</b>	342
10 Of which internal model method	<b>24,557</b>	25,482	<b>1,965</b>	2,039
11 Of which risk exposure amount for contributions to the default fund of a CCP	<b>1,131</b>	1,115	<b>90</b>	89
12 Of which CVA	<b>2,448</b>	2,518	<b>196</b>	201
13 Settlement risk	<b>105</b>	246	<b>8</b>	20
14 Securitisation exposures in banking book (after cap)	<b>12,124</b>	12,642	<b>970</b>	1,011
14a Of which 1250%	<b>9</b>	88	<b>1</b>	7
14b Of which look through approach (KIRB)	—	—	—	—
14c Of which Sec-ERBA	<b>365</b>	514	<b>29</b>	41
14d Of which Sec-IAA	<b>1,058</b>	1,006	<b>85</b>	80
14e Of which Sec-SA	<b>2,755</b>	1,487	<b>220</b>	119
14f Of which Sec-IRBA	<b>7,937</b>	9,547	<b>635</b>	764
19 Market risk	<b>44,771</b>	35,629	<b>3,582</b>	2,850
20 Of which the standardised approach	<b>17,406</b>	13,195	<b>1,392</b>	1,055
21 Of which IMA	<b>27,365</b>	22,434	<b>2,190</b>	1,795
22 Large exposures	—	—	—	—
23 Operational risk	<b>41,747</b>	40,898	<b>3,340</b>	3,272
24 Of which basic indicator approach	—	—	—	—
25 Of which standardised approach	<b>41,747</b>	40,898	<b>3,340</b>	3,272
26 Of which advanced measurement approach	—	—	—	—
27 Amounts below the thresholds for deduction (subject to 250% risk weight)	<b>11,276</b>	9,781	<b>902</b>	782
29 Total	<b>314,136</b>	306,203	<b>25,131</b>	24,496

For further detail on movements in RWAs for each risk type please see Analysis of credit risk (page 46), Analysis of counterparty credit risk (page 109), Analysis of market risk (page 125), Analysis of securitisation exposures (page 132) and Analysis of operational risk (page 145).

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 12: Movements in RWAs**

The table below show movements in RWAs, split by risk types and macro drivers.

RWAs	Credit Risk £m	Counterparty Credit Risk £m	Market Risk £m	Operational Risk £m	Total £m
<b>As at 1 January 2021</b>	<b>193,969</b>	<b>35,707</b>	<b>35,629</b>	<b>40,898</b>	<b>306,203</b>
Book size	(1,106)	1,838	1,295	849	2,876
Acquisitions and disposals	(1,095)	—	—	—	(1,095)
Book quality	175	(102)	—	—	73
Model updates	(950)	(186)	6,927	—	5,791
Methodology and policy	(345)	416	920	—	991
Foreign exchange movement <sup>a</sup>	(703)	—	—	—	(703)
<b>Total RWA movements</b>	<b>(4,024)</b>	<b>1,966</b>	<b>9,142</b>	<b>849</b>	<b>7,933</b>
<b>As at 31 December 2021</b>	<b>189,945</b>	<b>37,673</b>	<b>44,771</b>	<b>41,747</b>	<b>314,136</b>

**Note**

a Foreign exchange movement does not include FX for counterparty credit risk, market risk or operational risk.

Overall RWAs increased £7.9bn to £314.1bn (December 2020: £306.2bn). Significant movements in the period were:

Credit risk RWAs decreased £4.0bn:

- A £1.1bn decrease in book size mainly driven by lower lending, partially offset by growth in mortgages within Barclays UK
- A £1.1bn decrease in acquisitions and disposals mainly driven by disposal of wholesale loans during the year
- A £1.0bn decrease in model updates primarily due to modelled risk weight recalibrations

Counterparty credit risk RWAs increased £2.0bn:

- A £1.8bn increase in book size primarily due to an increase in client and trading activities within SFTs, partially offset by a reduction in derivatives

Market risk RWAs increased £9.1bn:

- A £1.3bn increase in book size primarily due to an increase in client and trading activities
- A £6.9bn increase in model updates driven by an increase in Stressed Value at Risk (SVaR) due to a model adjustment to reflect market movements during the COVID-19 stressed period following recalibration of the period, which was delayed until 2021 as a result of COVID-19 relief measures afforded by the PRA
- A £0.9bn increase in methodology and policy driven by the application of Pillar 1 Structural FX charge, partially offset by a change in the historical lookback period of the VaR model from two years to one year

## Risk and capital position review

### Analysis of treasury and capital risk continued

Tables 13, 14 and 15 below show a subset of the information included in table 12, focused on positions captured under modelled treatment.

**Table 13: CR8 – RWA flow statement of credit risk exposures under the AIRB approach**

	RWA amount £m	Capital requirements £m
<b>1 As at 1 January 2021</b>	<b>138,042</b>	<b>11,043</b>
2 Asset size	(8,483)	(679)
3 Asset quality	(219)	(18)
4 Model updates	(950)	(76)
5 Methodology and policy	118	9
6 Acquisitions and disposals	(288)	(23)
7 Foreign exchange movements	(393)	(31)
8 Other	—	—
<b>9 As at 31 December 2021</b>	<b>127,827</b>	<b>10,225</b>

Advanced credit risk RWAs decreased £10.2bn to £127.8bn driven by:

- A £8.5bn decrease in book size primarily due to lower lending, partially offset by growth in mortgages within Barclays UK

**Table 14: CCR7 – RWA flow statement of counterparty credit risk exposures under the IMM**

The total in this table shows the contribution of the IMM exposures to CCR RWAs (under both standardised and AIRB) and will not directly reconcile to CCR AIRB RWAs in table 10.

	RWA amount £m	Capital requirements £m
<b>1 As at 1 January 2021</b>	<b>25,584</b>	<b>2,047</b>
2 Asset size	(302)	(24)
3 Credit quality of counterparties	(473)	(38)
4 Model updates (IMM only)	(175)	(14)
5 Methodology and policy (IMM only)	—	—
6 Acquisitions and disposals	—	—
7 Foreign exchange movements	—	—
8 Other	—	—
<b>9 As at 31 December 2021</b>	<b>24,634</b>	<b>1,971</b>

**Table 15: MR2-B – RWA flow statement of market risk exposures under the IMA**

	VaR £m	SVaR £m	IRC £m	CRM £m	Other £m	Total RWA £m	Total Capital requirements £m
<b>1 As at 1 January 2021</b>	<b>5,126</b>	<b>9,037</b>	<b>4,671</b>	<b>—</b>	<b>3,600</b>	<b>22,434</b>	<b>1,795</b>
2 Movement in risk levels	639	(2,213)	(559)	—	1,426	(707)	(57)
3 Model updates/changes	—	6,927	—	—	—	6,927	554
4 Methodology and policy	(1,289)	—	—	—	—	(1,289)	(103)
5 Acquisitions and disposals	—	—	—	—	—	—	—
6 Other	—	—	—	—	—	—	—
<b>7 As at 31 December 2021</b>	<b>4,476</b>	<b>13,751</b>	<b>4,112</b>	<b>—</b>	<b>5,026</b>	<b>27,365</b>	<b>2,189</b>

Internal Model Approach RWAs increased by £4.9bn to £27.4bn mainly driven by:

- A £6.9bn increase in model updates/changes driven by an increase in SVaR due to a model adjustment to reflect market movements during the COVID-19 stressed period following recalibration of the period, which was delayed until 2021 as a result of COVID-19 relief measures afforded by the PRA
- A £1.3bn decrease in methodology and policy driven by a change in the historical lookback period of the VaR model from two years to one year

# Risk and capital position review

## Analysis of treasury and capital risk continued

### Basis of preparation for movements in RWAs

This analysis presents a flow statement explaining variations in the RWAs for credit, counterparty credit, market and operational risk. Seven categories of drivers have been identified and are described below. Not all the drivers are applicable to all risk types, however all categories have been listed below for completeness purposes.

#### Book size

##### Credit risk and counterparty risk (including CVA)

This represents RWA movements driven by changes in the size and composition of underlying positions, measured using EAD values for existing portfolios over the period. This includes, but is not exclusive to:

- new business and maturing loans
- changes in product mix and exposure growth for existing portfolios
- book size reductions owing to risk mitigation and write-offs.

##### Market risk

This represents RWA movements owing to the changes in trading positions and volumes driven by business activity.

#### Book quality

##### Credit risk and counterparty risk (including CVA)

This represents RWA movements driven by changes in the underlying credit quality and recoverability of portfolios and reflected through model calibrations or realignments where applicable. This includes, but is not exclusive to:

- PD migration and LGD changes driven by economic conditions
- ratings migration for standardised exposures

##### Market risk

This is the movement in RWAs owing to changing risk levels in the trading book, caused by fluctuations in market conditions.

#### Model updates

##### Credit risk and counterparty risk (including CVA)

This is the movement in RWAs as a result of both internal and external model updates. This includes, but is not exclusive to:

- updates to existing model inputs driven by both internal and external review
- model enhancements to improve models performance

##### Market risk

This is the movement in RWAs reflecting change in model scope, changes to market data levels, volatilities, correlations, liquidity and ratings used as input for the internal modelled RWA calculations.

#### Methodology and policy

##### Credit risk and counterparty risk (including CVA)

This is the movement in RWAs as a result of both internal and external methodology, policy and regulatory changes. This includes, but is not exclusive to:

- updates to RWA calculation methodology, communicated by the regulator
- the implementation of credit risk mitigation to a wider scope of portfolios

##### Market risk

This is the movement in RWAs as a result of both internal and external methodology, policy and regulatory changes for market risk.

#### Acquisitions and disposals

This is the movement in RWAs as a result of the disposal or acquisition of business operations impacting the size of banking and trading portfolios.

#### Foreign exchange movements

This is the movement in RWAs as a result of changes in the exchange rate between the functional currency of the Barclays business area or portfolio and our presentational currency for consolidated reporting. It should be noted that foreign exchange movements shown in table 12 do not include the impact of foreign exchange for the counterparty credit risk or market risk RWAs.

#### Other

This is the movement in RWAs driven by items that cannot be reasonably assigned to the other driver categories. In relation to market risk RWAs, this includes changes in measurement that are not driven by methodology, policy or model updates. This category had a nil balance for the year ended 31 December 2021.

## Risk and capital position review

### Analysis of treasury and capital risk continued

#### Leverage ratio and exposures

The following leverage tables show the components of the leverage ratio using the CRR definition for leverage exposure and Tier 1 capital as at 31 December 2021.<sup>a,b</sup>

Barclays Group manages the risk associated with leverage exposures through the Barclays Group capital risk management process. Leverage ratio forecasts are regularly monitored against early warning indicators and internal limits which trigger actions to mitigate risk. Barclays Group leverage ratio is also subject to regular external and internal stress testing.

**Table 16: Summary reconciliation of accounting assets and leverage ratio exposures**

This table is a summary of the total leverage exposures and comprises total IFRS assets used for statutory purposes, regulatory consolidation and other leverage adjustments.

	As at 31 December 2021		As at 31 December 2020	
	Barclays Group £m	Barclays Bank PLC £m	Barclays Group £m	Barclays Bank PLC £m
1 Total assets as per published financial statements	<b>1,384,285</b>	<b>1,064,671</b>	1,349,514	1,081,552
2 Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	<b>(3,665)</b>	<b>(2,164)</b>	(1,144)	(1,141)
4 Adjustments for derivative financial instruments	<b>(135,010)</b>	<b>(83,811)</b>	(197,693)	(178,706)
5 Adjustments for securities financing transactions (SFTs)	<b>24,544</b>	<b>38,675</b>	21,114	51,438
6 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	<b>113,140</b>	<b>112,754</b>	113,704	108,322
EU-6a (Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	—	<b>(222,834)</b>	—	(207,445)
7 Other adjustments	<b>(12,066)</b>	<b>(17,243)</b>	(10,109)	(14,147)
EU-7a Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	<b>(16,944)</b>	<b>(8,584)</b>	(21,229)	(13,502)
<b>8 Total leverage ratio exposure</b>	<b>1,354,284</b>	<b>881,464</b>	1,254,157	826,371

#### Notes

a Capital and leverage measures are calculated applying CRR as amended by CRR II.

b Leverage ratio is calculated without applying the transitional arrangements of the CRR as amended by CRR II for Barclays Group and with applying the transitional arrangements of the CRR as amended by CRR II for Barclays Bank PLC.



## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 17: Leverage ratio common disclosure**

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

	As at 31 December 2021	As at 31 December 2020
	£m	£m
<b>Barclays Group</b>		
<b>On-balance sheet exposures (excluding derivatives and SFTs)</b>		
1	947,294	881,890
EU-1a	(16,944)	(21,229)
2	(12,165)	(10,109)
3	<b>918,185</b>	850,552
<b>Derivative exposures</b>		
4	27,999	32,728
5	164,597	137,691
7	(39,017)	(45,838)
8	(41,526)	(34,814)
9	594,059	413,825
10	(578,550)	(398,839)
11	<b>127,562</b>	104,753
<b>Securities financing transaction exposures</b>		
12	540,855	470,432
13	(370,166)	(306,398)
14	24,708	21,114
16	<b>195,397</b>	185,148
17	347,416	340,179
18	(234,276)	(226,475)
19	<b>113,140</b>	113,704
<b>Capital and total exposures</b>		
20	58,447	54,832
21	<b>1,354,284</b>	1,254,157
<b>Leverage ratio</b>		
22	<b>4.3%</b>	4.4%
<b>Choice on transitional arrangements and amount of derecognised fiduciary items</b>		
EU-23	<b>Fully phased in</b>	

The CRR leverage ratio decreased to 4.3%. The CRR leverage exposure increased £100bn to £1,354bn primarily driven by cash at central banks, loans and advances and other assets, PFE on derivatives and SFTs.

**Note**

a The prior period has been revised to include the equal and offsetting impact of including CDS index options and client cleared CDSs. This has no impact on the total derivative exposures.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 17a: Leverage ratio common disclosure for significant subsidiary**

		As at 31 December 2021	As at 31 December 2020
		€m	€m
<b>Barclays Bank PLC</b>			
<b>On-balance sheet exposures (excluding derivatives and SFTs)</b>			
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	625,556	599,815
EU-1a	Adjustments for regular-way purchases and sales of financial assets subject to trade date accounting	(8,584)	(13,502)
2	Asset amounts deducted in determining tier 1 capital	(17,243)	(14,147)
3	<b>Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)</b>	<b>599,729</b>	572,166
<b>Derivative exposures</b>			
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	31,792	35,533
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	149,141	126,097
7	Deductions of receivables assets for cash variation margin provided in derivatives transactions	(29,388)	(43,049)
8	Exempted CCP leg of client-cleared trade exposures	(16,639)	(15,385)
9	Adjusted effective notional amount of written credit derivatives <sup>a</sup>	441,259	331,938
10	Adjusted effective notional offsets and add-on deductions for written credit derivatives <sup>a</sup>	(425,567)	(316,711)
11	<b>Total derivative exposures</b>	<b>150,598</b>	118,423
<b>Securities financing transaction exposures</b>			
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	574,590	518,168
13	Netted amounts of cash payables and cash receivables of gross SFT assets	(372,213)	(334,701)
14	Counterparty credit risk exposure for SFT assets	38,840	51,438
16	<b>Total securities financing transaction exposures</b>	<b>241,217</b>	234,905
<b>Other off-balance sheet exposures</b>			
17	Off-balance sheet exposures at gross notional amount	251,256	226,629
18	Adjustments for conversion to credit equivalent amounts	(138,502)	(118,307)
19	<b>Other off-balance sheet exposures</b>	<b>112,754</b>	108,322
<b>Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)</b>			
EU-19a	Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet)	(222,834)	(207,445)
<b>Capital and total exposures</b>			
20	Tier 1 capital	32,595	32,172
21	<b>Total leverage ratio exposures</b>	<b>881,464</b>	826,371
<b>Leverage ratio</b>			
22	Leverage ratio	<b>3.7%</b>	3.9%
<b>Choice on transitional arrangements and amount of derecognised fiduciary items</b>			
EU-23	Choice on transitional arrangements for the definition of the capital measure	<b>Transitional</b>	

**Note**

a The prior period has been revised to include the equal and offsetting impact of including CDS index options and client cleared CDS's. This has no impact on the total derivative exposures.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 18: Split-up of on balance sheet exposures (excluding derivatives, SFTs, and exempted exposures)**

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

		As at 31 December 2021	As at 31 December 2020
		€m	€m
<b>Barclays Group</b>			
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	<b>872,175</b>	795,863
EU-2	Trading book exposures	<b>157,603</b>	139,836
EU-3	Banking book exposures, of which:	<b>714,572</b>	656,027
EU-4	Covered bonds	<b>4,371</b>	1,886
EU-5	Exposures treated as sovereigns	<b>324,598</b>	288,083
EU-6	Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns	<b>13,525</b>	9,792
EU-7	Institutions	<b>10,951</b>	20,127
EU-8	Secured by mortgages of immovable properties	<b>169,085</b>	159,466
EU-9	Retail exposures	<b>49,169</b>	50,885
EU-10	Corporate	<b>74,737</b>	74,879
EU-11	Exposures in default	<b>6,019</b>	6,150
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	<b>62,117</b>	44,759

## Risk and capital position review

### Analysis of treasury and capital risk continued

#### Minimum requirement for own funds and eligible liabilities (MREL)

The disclosures in this section (tables 19 to 23) have 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 19: KM2 - Key metrics - TLAC requirements (at resolution group level)**

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

	As at 31.12.21	As at 30.09.21	As at 30.06.21	As at 31.03.21	As at 31.12.20
	€m	€m	€m	€m	€m
1 Total Loss Absorbing Capacity (TLAC) available <sup>a,b</sup>	<b>109,941</b>	109,068	105,344	102,756	102,746
1a Fully loaded ECL accounting model TLAC available	<b>109,041</b>	108,160	104,505	101,271	101,030
2 Total RWA at the level of the resolution group <sup>a</sup>	<b>314,136</b>	307,464	306,424	313,356	306,203
3 TLAC as a percentage of RWA (row 1 / row 2) (%) <sup>b</sup>	<b>35.0%</b>	35.5%	34.4%	32.8%	33.6%
3a Fully loaded ECL accounting model TLAC as a percentage of fully loaded ECL accounting model RWA (%)	<b>34.7%</b>	35.2%	34.1%	32.4%	33.1%
4 Leverage ratio exposure measure at the level of the resolution group <sup>c</sup>	<b>1,354,284</b>	1,368,259	1,334,929	1,320,628	1,254,157
5 TLAC as a percentage of leverage ratio exposure measure (row 1 / row 4) (%) <sup>b,c</sup>	<b>8.1%</b>	8.0%	7.9%	7.8%	8.2%
5a Fully loaded ECL accounting model TLAC as a percentage of fully loaded ECL accounting model Leverage exposure measure (%)	<b>8.1%</b>	7.9%	7.8%	7.7%	8.1%
6a Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	<b>No</b>	No	No	No	No
6b Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	<b>No</b>	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 (%)	<b>N/A</b>	N/A	N/A	N/A	N/A

#### Notes

- a Own funds included in TLAC, and RWAs are calculated applying the transitional arrangements of the CRR as amended by CRR II. This includes IFRS 9 transitional arrangements and the grandfathering of CRR and CRR II non-compliant capital instruments.
- b Includes subsidiary issuances, which are no longer eligible from 1 January 2022. Excluding subsidiary issuances, TLAC after deductions would have been €108.2bn resulting in a ratio of 8% as a percentage of leverage exposures and 34.4% as a percentage of RWAs.
- c Fully loaded CRR leverage exposure is calculated without applying the transitional arrangements of the CRR as amended by CRR II.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 20: 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.

		As at 31 December 2021
Barclays Group		€m
<b>Regulatory capital elements of TLAC and adjustments<sup>a</sup></b>		
1	Common Equity Tier 1 capital (CET1)	47,497
2	Additional Tier 1 capital (AT1) before TLAC adjustment	12,816
5	AT1 instruments eligible under the TLAC framework	12,816
6	Tier 2 capital (T2) before TLAC adjustments	9,739
7	Amortised portion of T2 instruments where remaining maturity > 1 year	640
10	T2 instruments eligible under the TLAC framework	10,379
11	TLAC arising from regulatory capital	70,692
<b>Non-regulatory capital elements of TLAC</b>		
12	External TLAC instruments issued directly by the bank and subordinated to excluded liabilities	39,279
17	TLAC arising from non-regulatory capital instruments before adjustments	39,279
<b>Non-regulatory capital elements of TLAC: adjustments</b>		
18	TLAC before deductions <sup>b</sup>	109,971
20	Deduction of investments in own other TLAC liabilities	(30)
22	TLAC after deductions	109,941
<b>Risk-weighted assets and leverage exposure measure for TLAC purposes</b>		
23	Total risk-weighted assets adjusted as permitted under the TLAC regime <sup>a</sup>	314,136
24	Leverage exposure measure <sup>c</sup>	1,354,284
<b>TLAC ratios and buffers</b>		
25	TLAC (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime) <sup>b</sup>	35.0%
26	TLAC (as a percentage of leverage exposure) <sup>b,c</sup>	8.1%
27	CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements	10.6%
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)	4.0%
29	Of which: capital conservation buffer requirement	2.5%
30	Of which: bank specific countercyclical buffer requirement	0.0%
31	Of which: higher loss absorbency requirement	1.5%

**Note**

a Own funds included in TLAC, and RWAs are calculated applying the transitional arrangements of the CRR as amended by CRR II. This includes IFRS 9 transitional arrangements and the grandfathering of CRR and CRR II non-compliant capital instruments.

b Includes subsidiary issuances, which are no longer eligible from 1 January 2022. Excluding subsidiary issuances, TLAC after deductions would have been €108.2bn resulting in a ratio of 8% as a percentage of leverage exposures and 34.4% as a percentage of RWAs.

c Fully loaded CRR leverage exposure is calculated without applying the transitional arrangements of the CRR as amended by CRR II.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 21: 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				Total Em
	1	2	3	4	
	Most junior Em	Em	Em	Most senior Em	
<b>As at 31 December 2021</b>					
1 Description of creditor ranking	<b>Ordinary Shares</b>	<b>Perpetual Deeply Subordinated Contingent Convertible Debt</b>	<b>Dated Subordinated Debt</b>	<b>Unsecured and Unsub- ordinated Debt, and other pari passu liabilities</b>	
2 Total capital and liabilities net of credit risk mitigation	<b>4,188</b>	<b>12,312</b>	<b>9,240</b>	<b>40,360</b>	<b>66,100</b>
3 Subset of row 2 that are excluded liabilities	—	—	—	<b>618</b>	<b>618</b>
4 Total capital and liabilities less excluded liabilities	<b>4,188</b>	<b>12,312</b>	<b>9,240</b>	<b>39,742</b>	<b>65,482</b>
5 Subset of row 4 that are potentially eligible as TLAC	<b>4,188</b>	<b>12,312</b>	<b>9,240</b>	<b>38,903</b>	<b>64,643</b>
6 Subset of row 5 with 1 year ≤ residual maturity < 2 years	—	—	—	<b>5,813</b>	<b>5,813</b>
7 Subset of row 5 with 2 years ≤ residual maturity < 5 years	—	—	<b>2,449</b>	<b>16,496</b>	<b>18,945</b>
8 Subset of row 5 with 5 years ≤ residual maturity < 10 years	—	—	<b>5,307</b>	<b>8,538</b>	<b>13,845</b>
9 Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities	—	—	<b>1,484</b>	<b>8,056</b>	<b>9,540</b>
10 Subset of row 5 that is perpetual securities	<b>4,188</b>	<b>12,312</b>	—	—	<b>16,500</b>

## Risk and capital position review

### 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 PLC's capital and liabilities and the position in creditor hierarchy.

Barclays Bank PLC		Creditor ranking							Total €m	
		1 Most junior €m	2 €m	3 €m	4 €m	5 €m	6 €m	6 €m		7 Most senior €m
<b>As at 31 December 2021</b>										
1	Is the resolution entity the creditor/investor?	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	
2	Description of creditor ranking	<b>Ordinary Shares</b>	<b>Perpetual Deeply Sub-ordinated Contingent Convertible Debt</b>	<b>Preference Shares / Perpetual Deeply Sub-ordinated Debt</b>	<b>Perpetual Sub-ordinated Debt</b>	<b>Junior Sub-ordinated Debt</b>	<b>Dated Sub-ordinated Debt</b>	<b>Dated Sub-ordinated Debt / Dated Sub-ordinated Contingent Capital Debt</b>	<b>Dated secondary non-preferential debt</b>	
3	Total capital and liabilities net of credit risk mitigation	<b>2,343</b>	<b>9,737</b>	<b>723</b>	<b>482</b>	<b>28</b>	<b>7,703</b>	<b>2,515</b>	<b>19,542</b>	<b>43,073</b>
4	Subset of row 3 that are excluded liabilities	—	—	—	—	—	—	—	—	—
5	Total capital and liabilities less excluded liabilities	<b>2,343</b>	<b>9,737</b>	<b>723</b>	<b>482</b>	<b>28</b>	<b>7,703</b>	<b>2,515</b>	<b>19,542</b>	<b>43,073</b>
6	Subset of row 5 that are eligible as TLAC	<b>2,343</b>	<b>9,737</b>	<b>723</b>	<b>482</b>	<b>28</b>	<b>7,703</b>	<b>2,515</b>	<b>19,542</b>	<b>43,073</b>
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	—	—	—	—	—	—	<b>42</b>	<b>4,550</b>	<b>4,592</b>
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	—	—	—	—	—	<b>1,015</b>	<b>274</b>	<b>7,455</b>	<b>8,744</b>
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	—	—	—	—	—	<b>4,066</b>	<b>97</b>	<b>4,245</b>	<b>8,408</b>
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	—	—	—	—	—	<b>2,622</b>	<b>107</b>	<b>3,292</b>	<b>6,021</b>
11	Subset of row 6 that is perpetual securities	<b>2,343</b>	<b>9,737</b>	<b>723</b>	<b>482</b>	<b>28</b>	—	—	—	<b>13,313</b>

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 23: 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				Total £m
		1 Most junior £m	2 £m	3 £m	4 Most senior £m	
<b>As at 31 December 2021</b>						
1	Is the resolution entity the creditor/investor?	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	
2	Description of creditor ranking	<b>Ordinary Shares</b>	<b>Perpetual Deeply Subordinated Contingent Convertible Debt</b>	<b>Dated Subordinated Debt</b>	<b>Dated secondary non- preferential debt</b>	
3	Total capital and liabilities net of credit risk mitigation	<b>5</b>	<b>2,575</b>	<b>3,419</b>	<b>6,069</b>	<b>12,068</b>
4	Subset of row 3 that are excluded liabilities	—	—	—	—	—
5	Total capital and liabilities less excluded liabilities	<b>5</b>	<b>2,575</b>	<b>3,419</b>	<b>6,069</b>	<b>12,068</b>
6	Subset of row 5 that are eligible as TLAC	<b>5</b>	<b>2,575</b>	<b>3,419</b>	<b>6,069</b>	<b>12,068</b>
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	—	—	—	<b>1,263</b>	<b>1,263</b>
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	—	—	<b>1,435</b>	<b>3,032</b>	<b>4,467</b>
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	—	—	<b>1,242</b>	<b>742</b>	<b>1,984</b>
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	—	—	<b>742</b>	<b>1,032</b>	<b>1,774</b>
11	Subset of row 6 that is perpetual securities	<b>5</b>	<b>2,575</b>	—	—	<b>2,580</b>



## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 24: LIQ1 - Liquidity Coverage ratio**

This table shows the level and components of the Liquidity Coverage Ratio. This disclosure has been prepared in accordance with the requirements set out in the 'Guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 of Regulation (EU) No 575/2013' as specified in Annexure II which complements Article 435(1)(f) of Regulation (EU) No 575/2013.

	Total period end value				
	31.12.21	30.09.21	30.06.21	31.03.21	31.12.20
	£m	£m	£m	£m	£m
Liquidity buffer	<b>285,272</b>	283,628	280,079	280,175	258,198
Total net cash outflows	<b>169,342</b>	176,308	172,528	173,490	159,320
Liquidity coverage ratio (%) (period end)	<b>168%</b>	161%	162%	161%	162%

#### LIQ1 - Liquidity coverage ratio (average)

	Total unweighted value (average)					Total weighted value (average)				
	31.12.21	30.09.21	30.06.21	31.03.21	31.12.20	31.12.21	30.09.21	30.06.21	31.03.21	31.12.20
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Number of data points used in calculation of averages <sup>a</sup>	12	12	12	12	12	12	12	12	12	12
<b>High-quality liquid assets</b>										
1 Total high-quality liquid assets (HQLA)	<b>293,556</b>	291,764	298,380	295,957	281,470	<b>293,556</b>	291,764	298,380	295,957	281,470
<b>Cash outflows</b>										
2 <b>Retail deposits and deposits from small business customers, of which:</b>	<b>258,737</b>	254,402	250,148	244,129	232,900	<b>22,047</b>	21,522	21,061	20,507	19,795
3 <i>Stable deposits</i>	<b>139,457</b>	137,608	135,225	131,313	125,621	<b>6,973</b>	6,880	6,761	6,566	6,281
4 <i>Less stable deposits</i>	<b>110,798</b>	108,014	105,639	102,964	99,687	<b>15,048</b>	14,635	14,295	13,937	13,509
5 <b>Unsecured wholesale funding, of which:</b>	<b>230,221</b>	225,365	222,291	217,873	208,240	<b>114,848</b>	113,903	114,444	113,206	107,669
6 <i>Operational deposits (all counterparties) and deposits in networks of cooperative banks</i>	<b>58,777</b>	56,278	52,945	50,547	48,850	<b>14,373</b>	13,758	12,938	12,353	11,946
7 <i>Non-operational deposits (all counterparties)<sup>b</sup></i>	<b>162,363</b>	160,393	160,623	158,952	152,613	<b>91,685</b>	91,451	92,783	92,479	88,946
8 <i>Unsecured debt</i>	<b>9,081</b>	8,694	8,723	8,374	6,777	<b>8,790</b>	8,694	8,723	8,374	6,777
9 <b>Secured wholesale funding</b>						<b>56,779</b>	57,561	57,386	58,042	58,316
10 <b>Additional requirements, of which:</b>	<b>185,531</b>	185,859	184,243	181,899	178,970	<b>54,548</b>	55,304	55,043	54,993	54,122
11 <i>Outflows related to derivative exposures and other collateral requirements</i>	<b>21,030</b>	21,326	21,644	22,212	22,814	<b>18,604</b>	18,959	19,324	19,890	20,421
12 <i>Outflows related to loss of funding on debt products</i>	<b>10,105</b>	10,670	10,431	10,311	9,483	<b>10,105</b>	10,670	10,431	10,311	9,483
13 <i>Credit and liquidity facilities</i>	<b>154,396</b>	153,863	152,168	149,376	146,673	<b>25,839</b>	25,675	25,288	24,792	24,218
14 <b>Other contractual funding obligations</b>	<b>3,010</b>	3,018	3,165	3,288	3,030	<b>2,628</b>	2,557	2,626	2,669	2,351
15 <b>Other contingent funding obligations</b>	<b>151,612</b>	152,326	154,310	157,072	159,316	<b>6,136</b>	6,233	5,997	5,783	5,693
16 <b>Total cash outflows</b>	<b>256,986</b>	257,080	256,557	255,200	247,946	<b>256,986</b>	257,080	256,557	255,200	247,946
<b>Cash inflows</b>										
17 <b>Secured lending (e.g. reverse repos)</b>	<b>531,068</b>	523,471	504,617	494,791	486,986	<b>55,088</b>	55,434	55,669	55,605	55,820
18 <b>Inflows from fully performing exposures</b>	<b>12,179</b>	13,562	14,965	16,257	16,844	<b>7,694</b>	9,326	10,601	11,667	12,010
19 <i>Other cash inflows</i>	<b>14,184</b>	14,097	14,313	14,656	15,885	<b>10,548</b>	10,457	10,570	10,790	11,982
EU-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)										
EU-19b (Excess inflows from a related specialised credit institution)										
20 <b>Total cash inflows</b>	<b>557,431</b>	551,130	533,895	525,704	519,715	<b>73,330</b>	75,217	76,840	78,062	79,812
<i>Fully exempt inflows</i>	—	—	—	—	—	—	—	—	—	—
<i>Inflows subject to 90% cap</i>	—	—	—	—	—	—	—	—	—	—
<i>Inflows subject to 75% cap</i>	<b>448,286</b>	443,670	431,215	427,927	422,635	<b>73,330</b>	75,217	76,840	78,062	79,812
21 <b>Liquidity buffer</b>	<b>293,556</b>	291,764	298,380	295,957	281,470	<b>293,556</b>	291,764	298,380	295,957	281,470
22 <b>Total net cash outflows</b>	<b>183,656</b>	181,863	179,717	177,138	168,134	<b>183,656</b>	181,863	179,717	177,138	168,134
23 <b>Liquidity coverage ratio (%) (average)</b>	<b>160%</b>	160%	166%	167%	167%	<b>160%</b>	160%	166%	167%	167%

#### Notes

- a Trailing average of 12 month-end observations to the reporting date.  
b Non-operational deposits in row 7 include excess deposits as defined in the Delegated Act Article 27(4).

## Risk and capital position review

### Analysis of treasury and capital risk continued

As at 31 December 2021, the Barclays Group LCR was 168% (December 2020: 162%), equivalent to a surplus of £116bn (December 2020: £99bn) above the 100% regulatory requirement. The year-on-year increase in the liquidity pool, LCR and surplus is driven by deposit growth, borrowing from the Bank of England's Term Funding Scheme with additional incentives for SMEs and an increase in wholesale funding, which were partly offset by an increase in business funding consumption.

The average LCR for the 12 months to 31 December 2021 decreased to 160% (December 2020: 167%), as growth in stresses exceeded the growth in the liquidity buffer.

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 2021, 58% (2020: 64%) of the liquidity pool was located in Barclays Bank PLC, 30% (2020: 23%) in Barclays Bank UK PLC and 7% (2020: 7%) 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 Group 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 notes programmes. Barclays Bank UK PLC continued to issue in the shorter-term markets and maintain active secured funding programmes. This funding capacity enables the respective entities to maintain their stable and diversified funding bases.

Barclays Bank Group and Barclays Bank UK Group also support 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.

## Risk and capital position review

### 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 £m	Borrowings which hedge the net investments £m	Derivatives which hedge the net investments £m	Structural currency exposures pre-economic hedges £m	Economic hedges £m	Remaining structural currency exposures £m
As at 31 December 2021						
USD	<b>25,958</b>	<b>(7,707)</b>	<b>(2,356)</b>	<b>15,895</b>	<b>(7,389)</b>	<b>8,506</b>
EUR	<b>8,453</b>	<b>(3,408)</b>	<b>(3)</b>	<b>5,042</b>	<b>(268)</b>	<b>4,774</b>
JPY	<b>614</b>	<b>(97)</b>	<b>—</b>	<b>517</b>	<b>—</b>	<b>517</b>
Other currencies	<b>2,448</b>	<b>—</b>	<b>(64)</b>	<b>2,384</b>	<b>—</b>	<b>2,384</b>
Total	<b>37,473</b>	<b>(11,212)</b>	<b>(2,423)</b>	<b>23,838</b>	<b>(7,657)</b>	<b>16,181</b>
As at 31 December 2020						
USD	24,204	(7,666)	(764)	15,774	(6,193)	9,581
EUR	5,275	(952)	(3)	4,320	(286)	4,034
JPY	582	—	—	582	—	582
Other currencies	2,020	(42)	(24)	1,954	—	1,954
Total	32,081	(8,660)	(791)	22,630	(6,479)	16,151

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 2021, total structural currency exposure net of hedging instruments remained stable at £16.2bn (December 2020: £16.2bn). Foreign currency net investments increased by £5.4bn to £37.5bn (2020: £32.1bn) driven predominantly by a £3.2bn increase in EUR, £1.7bn increase in USD and £0.5bn increase in other currencies. The hedges associated with these investments increased by £4.1bn to £13.6bn (2020: £9.5bn).

## Risk and capital position review

### Analysis of treasury and capital risk continued

#### Pension risk review

The UK Retirement Fund (UKRF) represents approximately 97% (31 December 2020: 97%) of the Group's total retirement benefit obligations globally. As such this risk review 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 198 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 an appropriate mix of return seeking assets as well as liability matching assets to better match future pension obligations. The two largest market risks within the asset portfolio are interest rates and equities. The split of scheme assets is shown within Note 33 on page 402 of the Barclays PLC Annual Report 2021. The fair value of the UKRF assets was £34.7bn as at 31 December 2021 (31 December 2020: £33.9bn).

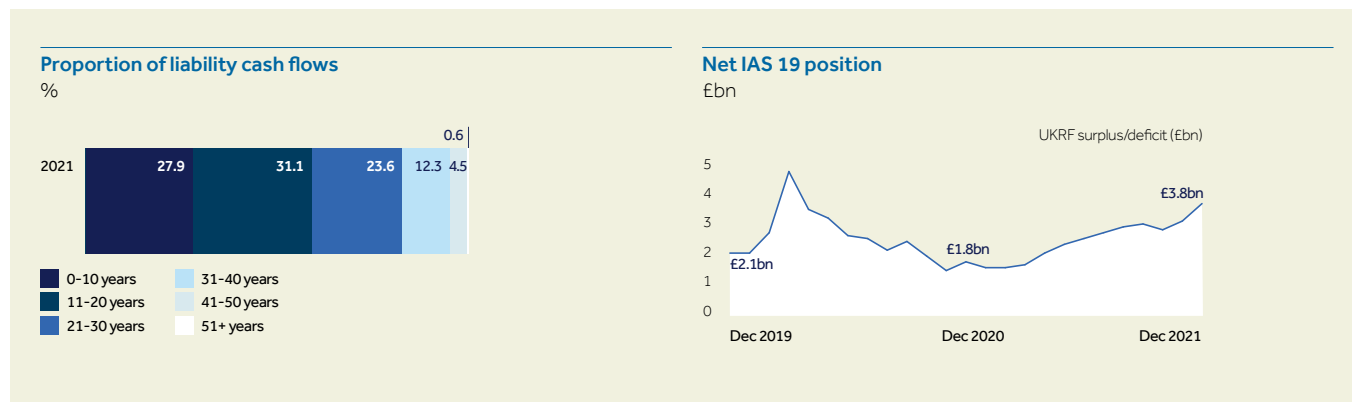
##### Liabilities

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 2021 that takes account of the future inflation indexing of payments to beneficiaries. The majority of the cash flows (approximately 95%) 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 33 on page 402 of the Barclays PLC Annual Report 2021.



The graph above shows the evolution of the UKRF's net IAS 19 position over the last two years. During 2021 the increase in the IAS 19 pension surplus was driven by high asset returns and scheduled deficit reduction contributions. Higher realised inflation over the year had a negative impact by increasing the projected liabilities, which was partially offset by updates to the demographic assumptions.

## Risk and capital position review

### 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 forums including the Board Risk Committee, the Group Risk Committee, the Pensions Management Group and the Pension Executive Board. The VaR model takes into account the valuation of the liabilities on an IAS 19 basis (see Note 33 on page 402 of the Barclays PLC Annual Report 2021). 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 33 on page 402 of the Barclays PLC Annual Report 2021). To mitigate part of this risk the UKRF has entered into a longevity swap hedging approximately a quarter 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 Group's Overall Capital Requirement for CET1 capital, Tier 1 capital and total capital. More detail on minimum regulatory requirements can be found in the Overall capital requirements section.

## Interest rate risk in the banking book

#### Net interest income sensitivity

The table below shows a sensitivity analysis on pre-tax net interest income for non-traded financial assets and liabilities, including the effect of any hedging. This analysis is not a forward guidance on NII and is intended as a quantification of risk exposure utilising the Annual Earnings at Risk (AEaR) metric as described on page 200 of the Barclays PLC Pillar 3 Report 2021. Note that this metric assumes an instantaneous parallel change to forward interest rate curves. The model does not apply floors to shocked market rates, but does recognise contractual product specific interest rate floors where relevant. The main model assumptions are: (i) one-year ahead time horizon; (ii) balance sheet is held constant; (iii) balances are adjusted for customer behaviour (i.e. considers that customers may prepay before the contractual maturity or withdraw their deposits); and (iv) behavioural assumptions are kept unchanged in all rate scenarios.

**Table 26: Net interest income sensitivity (AEaR) by business unit**

	Barclays UK £m	Barclays International £m	Head Office £m	Total £m
<b>As at 31 December 2021</b>				
+25bps	(2)	68	5	71
-25bps	(54)	(99)	(5)	(158)
<b>As at 31 December 2020</b>				
+25bps	10	86	4	100
-25bps	(141)	(263)	(4)	(408)

#### Note

- +25bps AEaR in Barclays International reflects refined modelling of pricing assumptions for 2021. Based on these assumptions, the 2020 scenario would have shown an AEaR of £121m.
- The Group's customer banking book hedging activity is risk reducing from an NII sensitivity perspective. The hedges in place remove interest rate risk and smooth income over the medium term. The NII sensitivity for the Group at 31 December 2021 without hedging in place for +/-25bp rate shocks would be £218m/£(305)m respectively.

NII asymmetry arises due to the current low interest rate levels and the effect of embedded floors in customer products. NII sensitivity to a -25bp shock to rates has decreased year on year due to reduced margin compression exposure driven by actual and expected central bank rate increases. NII Sensitivity to a +25bps shock has similarly decreased year on year driven by the expectation of rate rises in the outlook and the decompression of product margins in the base case.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 27: Net interest income sensitivity (AEaR) by currency**

**Net interest income sensitivity (AEaR) by currency**

As at 31 December	2021		2020	
	+25 basis points	-25 basis points	+25 basis points	-25 basis points
	£m	£m	£m	£m
GBP	14	(85)	48	(313)
USD	58	(62)	48	(63)
EUR	5	(15)	10	(34)
Other currencies	(6)	4	(6)	2
<b>Total</b>	<b>71</b>	<b>(158)</b>	100	(408)

**Note**

+25bps AEaR in Barclays International reflects refined modelling of pricing assumptions for 2021. Based on these assumptions, the 2020 scenario would have shown a GBP AEaR of £83m.

**Analysis of equity sensitivity**

Equity sensitivity measures the overall impact of a +/- 25bps movement in interest rates on retained earnings, fair value through other comprehensive income (FVOCI), cash flow hedge reserves and pensions. For non-NII items a DV01 metric is used, which is an indicator of the shift in value for a 1bp movement in the yield curve.

**Table 28: Analysis of equity sensitivity**

**Analysis of equity sensitivity**

As at 31 December	2021		2020	
	+25 basis points	-25 basis points	+25 basis points	-25 basis points
	£m	£m	£m	£m
Net interest income	71	(158)	100	(408)
Taxation effects on the above	(15)	33	(27)	110
<b>Effect on profit for the year</b>	<b>56</b>	<b>(125)</b>	73	(298)
<b>As percentage of net profit after tax</b>	<b>0.8%</b>	<b>(1.7)%</b>	3.0%	(12.1)%
Effect on profit for the year (per above)	56	(125)	73	(298)
Fair value through other comprehensive income reserve	(479)	408	(437)	453
Cash flow hedge reserve	(859)	859	(570)	570
Taxation effects on the above	361	(342)	272	(276)
<b>Effect on equity</b>	<b>(921)</b>	<b>800</b>	(662)	449
<b>As percentage of equity</b>	<b>(1.3)%</b>	<b>1.2%</b>	(1.0)%	0.7%

**Note**

+25bps AEaR in Barclays International reflects refined modelling of pricing assumptions for 2021. Based on these assumptions, the 2020 scenario would have shown an effect on equity of £(636)m.

Movements in the FVOCI reserve impact CET1 capital. However, movements in the cash flow hedge reserve and pensions remeasurement reserve recognised in FVOCI do not affect CET1 capital.

### Volatility of the FVOCI portfolio in the liquidity pool

Changes in the value of FVOCI exposures flow directly through capital via the FVOCI reserve. The volatility of the value of the FVOCI investments in the liquidity pool is captured and managed through a value measure rather than an earning measure, i.e. non-traded market risk VaR.

Although the underlying methodology to calculate the non-traded VaR is identical to the one used in traded management VaR, the two measures are not directly comparable. The non-traded VaR represents the volatility to capital driven by the FVOCI exposures. These exposures are in the banking book and do not meet the criteria for trading book treatment.

**Analysis of volatility of the FVOCI portfolio in the liquidity pool**

For the year ended 31 December	2021			2020		
	Average	High	Low	Average	High	Low
	£m	£m	£m	£m	£m	£m
Non-traded market value at risk (daily, 95%)	51	62	34	52	68	36

VaR trend remained in ~£10m range in H1 2021. The range widened in H2 2021 and was generally driven by outright interest rates risk positioning, which was initially reduced before subsequently being increased. The portfolio de-risked in both outright and asset swap in Q4 2021 which caused a downward trend in VaR.

## Risk and capital position review

### Analysis of treasury and capital risk continued

**Table 29: PV1 - Prudent valuation adjustment**

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.

		Equity	Interest rates	FX	Credit	Commodities	Total	Of which: In the trading book <sup>a,b</sup>	Of which: In the banking book <sup>a,b</sup>
		£m	£m	£m	£m	£m	£m	£m	£m
<b>Barclays Group</b>									
<b>As at 31 December 2021</b>									
1	Closeout uncertainty, of which:	477	333	31	251	—	1,092	881	211
2	Mid-market value <sup>c</sup>	322	239	21	216	—	798	669	129
3	Closeout cost <sup>c</sup>	50	64	4	15	—	133	133	—
4	Concentration	105	30	6	20	—	161	79	82
5	Early termination	—	—	—	—	—	—	—	—
6	Model risk <sup>c</sup>	47	48	—	2	—	97	97	—
7	Operational risk	38	40	2	32	—	112	91	21
8	Investing and funding costs <sup>c</sup>	12	34	—	86	—	132	51	81
9	Unearned credit spreads <sup>c</sup>	—	69	—	—	—	69	69	—
10	Future administrative costs	2	74	4	3	—	83	83	—
11	Other	—	—	—	—	—	—	—	—
12	<b>Total adjustment</b>	<b>576</b>	<b>598</b>	<b>37</b>	<b>374</b>		<b>1,585</b>	<b>1,272</b>	<b>313</b>
<b>As at 31 December 2020</b>									
1	Closeout uncertainty, of which:	363	170	18	171	—	722	510	212
2	Mid-market value <sup>c</sup>	217	99	8	148	—	472	358	114
3	Closeout cost <sup>c</sup>	27	47	2	8	—	84	84	—
4	Concentration	119	24	8	15	—	166	68	98
5	Early termination	—	—	—	—	—	—	—	—
6	Model risk <sup>c</sup>	27	56	—	—	—	83	83	—
7	Operational risk	25	23	1	27	—	76	53	23
8	Investing and funding costs <sup>c</sup>	9	33	—	111	—	153	42	111
9	Unearned credit spreads <sup>c</sup>	—	59	—	—	—	59	59	—
10	Future administrative costs	23	20	3	7	—	53	53	—
11	Other	—	—	—	—	—	—	—	—
12	<b>Total adjustment</b>	<b>447</b>	<b>361</b>	<b>22</b>	<b>316</b>		<b>1,146</b>	<b>800</b>	<b>346</b>

#### Notes

- a Barclays' implementation of PVA means that amounts cannot be easily classified as banking book or trading book. In the table we have provided the most material contributors to Banking book PVA, including a portfolio of longer dated non-asset backed loans made to Education, Social Housing and Local Authority counterparties and certain Equity investments.
- b Significant contributors to PVA include trading book derivative portfolios, equity investments and non-asset backed loans held at fair value.
- c A diversification reduction factor of 50% is applied to uncertainty after all regulatory exclusions and offsets, where permitted by CRR.

The increase in PVA is primarily driven by the reversal of the temporary regulatory change to the diversification factor in 2020 as part of the EBA's response to the market dislocation resulting from COVID-19; this was outlined in an update to the EBA's RTS on Prudent Valuation.

# 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

Risk weighted assets for credit risk decreased **£4.0bn** (December 2020: **£193.4bn**).

### Mainly driven by





## Risk and capital position review

# Analysis of credit risk

### Analysis of capital requirements and exposures for credit risk

**Table 30: Credit risk exposures – Note on pre- and post- credit risk mitigation (CRM) EAD**

This table summarises credit risk information presented in the rest of this report and shows EAD pre- and post-CRM. In accordance with regulatory requirements, credit mitigation is either reflected in regulatory measures for EAD, or in the risk parameters: probability of default (PD) and loss given default (LGD). For the majority of Barclays' exposures, in particular mortgages and those under the AIRB treatment, the impact of CRM is primarily reflected in the PD or LGD rather than EAD measures.

RWAs and post-CRM exposures are analysed on page 50. Pre-CRM exposures are further analysed by geography on page 52, industry on page 56 and residual maturity on page 60. Information on the impact of CRM on EAD is set out on pages 64-72.

Credit exposure class	EAD pre-CRM <sup>a</sup>		EAD post-CRM <sup>a</sup>	
	Year end	Average <sup>b</sup>	Year end	Average <sup>b</sup>
	£m	£m	£m	£m
<b>Barclays Group</b>				
<b>As at 31 December 2021</b>				
<b>Standardised approach</b>				
Central governments or central banks	269,961	265,195	271,685	267,120
Regional governments or local authorities	9,177	8,886	9,032	8,707
Public sector entities	5,749	6,411	5,749	6,405
Multilateral development banks	5,314	6,054	5,314	6,054
International organisations	558	618	558	618
Institutions	5,131	5,239	5,105	5,218
Corporates	43,975	41,608	27,786	26,114
Retail	22,687	21,130	22,580	21,043
Secured by mortgages	9,481	9,532	9,433	9,490
Exposures in default	1,360	1,403	1,305	1,332
Items associated with high risk	1,959	1,877	1,959	1,808
Covered bonds	1,110	1,315	1,110	1,315
Securitisation positions	22,890	19,450	22,890	19,450
Collective investment undertakings	—	—	—	—
Equity positions	851	860	851	846
Other items	4,217	4,105	4,217	4,105
<b>Total standardised approach</b>	<b>404,420</b>	<b>393,683</b>	<b>389,574</b>	<b>379,625</b>
<b>Advanced IRB approach</b>				
Central governments or central banks	95,117	92,694	94,987	92,534
Institutions	17,302	20,158	17,219	20,045
Corporates	95,493	101,401	89,951	96,345
Retail	—	—	—	—
- Small and medium-sized enterprises (SMEs)	7,775	7,920	7,229	7,344
- Secured by real estate collateral	168,985	166,883	168,985	166,883
- Qualifying revolving retail	32,821	33,593	32,821	33,593
- Other retail	3,987	4,073	3,987	4,073
Equity	—	—	—	—
Securitisation positions	42,034	37,025	42,034	37,025
Non-credit obligation assets	10,170	10,060	10,170	10,060
<b>Total advanced IRB approach</b>	<b>473,684</b>	<b>473,807</b>	<b>467,383</b>	<b>467,902</b>
<b>Total</b>	<b>878,104</b>	<b>867,490</b>	<b>856,957</b>	<b>847,527</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 30: Credit risk exposures – Note on pre- and post- credit risk mitigation (CRM) EAD - continued**

Barclays Group	EAD pre-CRM		EAD post-CRM	
	Year end	Average	Year end	Average
As at 31 December 2020	£m	£m	£m	£m
<b>Standardised approach</b>				
Central governments or central banks	235,667	236,725	237,637	237,751
Regional governments or local authorities	10,829	10,384	10,486	10,068
Public sector entities	8,424	7,969	8,418	7,957
Multilateral development banks	7,209	8,654	7,209	8,654
International organisations	734	524	734	524
Institutions	4,988	5,220	4,900	5,124
Corporates	37,618	40,064	23,405	25,521
Retail	21,565	23,736	21,199	23,354
Secured by mortgages	9,363	9,341	9,337	9,314
Exposures in default	1,410	1,609	1,379	1,586
Items associated with high risk	1,431	1,468	1,431	1,468
Covered bonds	1,886	1,929	1,886	1,929
Securitisation positions	14,936	14,113	14,936	14,113
Collective investment undertakings	—	—	—	—
Equity positions	723	542	723	542
Other items	4,824	4,282	4,824	4,282
<b>Total standardised approach</b>	<b>361,607</b>	<b>366,560</b>	<b>348,504</b>	<b>352,187</b>
<b>Advanced IRB approach</b>				
Central governments or central banks	98,757	93,685	98,581	93,506
Institutions	20,034	22,912	19,953	22,809
Corporates	105,768	113,365	98,499	106,441
Retail	—	—	—	—
- Small and medium-sized enterprises (SMEs)	8,206	8,258	7,644	8,258
- Secured by real estate collateral	159,949	156,953	159,949	156,953
- Qualifying revolving retail	35,691	37,885	35,691	37,885
- Other retail	4,561	5,270	4,561	5,270
Equity	—	—	—	—
Securitisation positions	32,512	31,973	32,512	31,973
Non-credit obligation assets	9,362	9,049	9,362	9,049
<b>Total advanced IRB approach</b>	<b>474,840</b>	<b>479,350</b>	<b>466,752</b>	<b>472,144</b>
<b>Total</b>	<b>836,447</b>	<b>845,910</b>	<b>815,256</b>	<b>824,331</b>

**Notes**

- a Collateral and guarantees for advanced IRB are not included within EAD as the impact of these measures is reflected in the LGD calculations.  
 b Averages are calculated based on the last four quarters.

Exposure at default pre-CRM increased by £41.7bn to £878.1bn primarily driven by an increase in the Group liquidity pool.

## Risk and capital position review

### Analysis of credit risk continued

**Table 31: CRB-B Total and average net amount of exposures**

This table provides the total and the average amount of net exposures over the period by exposure class.

The "Net value of exposure" column represents gross exposures pre-CRM and CCF.

	Net value of exposures As at 31 December 2021 £m	Average net exposures <sup>a</sup> As at 31 December 2021 £m	Net value of exposures As at 31 December 2020 £m	Average net exposures <sup>a</sup> As at 31 December 2020 £m
<b>Barclays Group</b>				
1 Central governments or central banks	95,156	92,736	98,795	93,724
2 Institutions	21,271	24,129	23,912	26,852
3 Corporates	136,145	145,087	149,590	156,253
4 Of Which: Specialised Lending	7,656	8,941	9,419	9,509
5 Of Which: SMEs	15,449	16,252	17,681	18,435
6 Retail	241,216	240,814	240,175	240,114
7 Secured by real estate property	172,779	170,255	164,226	160,415
8 SME	—	—	—	—
9 Non-SMEs	172,779	170,255	164,226	160,415
10 Qualifying Revolving	57,255	59,127	63,640	66,711
11 Other Retail	11,182	11,432	12,309	12,988
12 SME	7,194	7,358	7,746	7,716
13 Non-SMEs	3,988	4,074	4,563	5,271
14 Equity	—	—	—	—
15 <b>Total IRB Approach</b>	<b>493,788</b>	<b>502,766</b>	512,472	516,943
16 Central governments or central banks	251,935	245,442	214,302	219,684
17 Regional governments or local authorities	9,417	9,058	10,960	10,512
18 Public sector entities	5,874	6,651	8,670	8,218
19 Multilateral development banks	5,314	6,054	7,209	8,654
20 International organisations	558	618	734	524
21 Institutions	6,087	6,467	6,083	6,357
22 Corporates	65,956	63,086	58,855	60,538
23 Of Which: SMEs	4,152	4,252	5,108	4,543
24 Retail	107,014	103,585	101,881	107,119
25 Of Which: SMEs	10,029	11,588	12,114	9,014
26 Secured by mortgages on immovable property	9,532	9,567	9,406	9,390
27 Of Which: SMEs	89	131	188	144
28 Exposures in default	2,845	2,225	1,861	2,044
29 Items associated with particularly high risk	1,960	1,879	1,444	1,477
30 Covered bonds	1,110	1,315	1,886	1,929
31 Claims on institutions and corporates with a short-term credit assessment	—	—	—	—
32 Collective investments undertakings	—	—	—	—
33 Equity exposures	851	860	723	541
34 Other exposures	4,217	4,098	4,824	4,282
35 <b>Total standardised approach</b>	<b>472,670</b>	<b>460,905</b>	428,838	441,269
36 <b>Total</b>	<b>966,458</b>	<b>963,671</b>	941,310	958,212

**Note**

a Average net exposure values are calculated based on the last four quarters.

For further information on key movements, see table 30.

## Risk and capital position review

### Analysis of credit risk continued

**Table 32: Detailed view of credit risk RWAs and capital requirement**

This table shows RWAs for credit risk by credit exposure class.

	As at 31 December 2021			As at 31 December 2020		
	EAD €m	RWA €m	Capital requirements €m	EAD €m	RWA €m	Capital requirements €m
<b>Barclays Group</b>						
<b>Standardised approach</b>						
Central governments or central banks	271,685	61	5	237,637	39	3
Regional governments or local authorities	9,032	1,501	120	10,486	1,657	133
Public sector entities	5,749	190	15	8,418	205	16
Multilateral development banks	5,314	—	—	7,209	—	—
International organisations	558	—	—	734	—	—
Institutions	5,105	1,526	122	4,900	1,526	122
Corporates	27,786	25,446	2,036	23,405	21,335	1,707
Retail	22,580	16,855	1,348	21,199	15,899	1,272
Secured by mortgages	9,433	3,548	284	9,337	3,567	285
Exposures in default	1,305	1,515	121	1,379	1,581	127
Items associated with high risks	1,959	2,938	235	1,431	2,147	172
Covered bonds	1,110	115	9	1,886	204	16
Securitisation positions	22,890	4,110	329	14,936	2,993	239
Collective investment undertakings	—	—	—	—	—	—
Equity positions	851	2,127	170	723	1,767	141
Other items	4,217	2,186	175	4,824	3,007	241
<b>Total standardised approach</b>	<b>389,574</b>	<b>62,118</b>	<b>4,969</b>	<b>348,504</b>	<b>55,927</b>	<b>4,474</b>
<b>Advanced IRB approach</b>						
Central governments or central banks	94,987	4,569	366	98,581	5,076	406
Institutions	17,219	3,941	315	19,953	4,621	370
Corporates	89,951	50,012	4,001	98,499	58,407	4,673
Retail	—	—	—	—	—	—
- Small and medium-sized enterprises (SMEs)	7,229	3,176	254	7,644	3,366	269
- Secured by real estate collateral	168,985	26,725	2,138	159,949	23,105	1,848
- Qualifying revolving retail	32,821	12,353	988	35,691	15,693	1,256
- Other retail	3,987	3,637	291	4,561	4,048	324
Equity	—	—	—	—	—	—
Securitisation positions	42,034	7,937	635	32,512	9,547	764
Non-credit obligation assets	10,170	15,477	1,237	9,362	14,179	1,134
<b>Total advanced IRB approach</b>	<b>467,383</b>	<b>127,827</b>	<b>10,225</b>	<b>466,752</b>	<b>138,042</b>	<b>11,044</b>
<b>Total</b>	<b>856,957</b>	<b>189,945</b>	<b>15,194</b>	<b>815,256</b>	<b>193,969</b>	<b>15,518</b>

Risk weighted assets decreased by €4.0bn to €189.9bn primarily driven by:

- Corporate RWAs decreased by €4.2bn to €75.5bn primarily due to securitisation activities and disposal of wholesale loans.

## Risk and capital position review

### Analysis of credit risk continued

**Table 32a: Detailed view of credit risk RWAs and capital requirement for significant subsidiary**

This table shows RWAs for credit risk by credit exposure class.

	As at 31 December 2021		As at 31 December 2020	
	RWA	Capital requirements	RWA	Capital requirements
	€m	€m	€m	€m
<b>Barclays Bank PLC</b>				
<b>Standardised approach</b>				
Central governments or central banks	8	1	8	1
Regional governments or local authorities	31	2	9	1
Public sector entities	60	5	45	4
Multilateral development banks	—	—	—	—
International organisations	—	—	—	—
Institutions	2,701	216	3,220	258
Corporates	23,493	1,879	18,246	1,458
Retail	496	40	570	46
Secured by mortgages	2,293	183	2,235	179
Exposures in default	868	69	856	69
Items associated with high risks	390	31	205	16
Covered bonds	—	—	6	—
Securitisation positions	3,457	277	3,182	255
Collective investment undertakings	—	—	—	—
Equity positions	6,656	533	7,262	581
Other items	447	36	724	58
<b>Total standardised approach</b>	<b>40,900</b>	<b>3,272</b>	<b>36,568</b>	<b>2,926</b>
<b>Advanced IRB approach</b>				
Central governments or central banks	4,516	361	5,075	406
Institutions	3,355	268	4,250	340
Corporates	40,590	3,247	46,062	3,685
Retail	—	—	—	—
- Small and medium-sized enterprises (SMEs)	—	—	—	—
- Secured by real estate collateral	183	15	245	20
- Qualifying revolving retail	—	—	—	—
- Other retail	—	—	—	—
Equity	—	—	—	—
Securitisation positions	7,347	588	9,247	740
Non-credit obligation assets	3,389	271	3,096	248
<b>Total advanced IRB approach</b>	<b>59,380</b>	<b>4,750</b>	<b>67,975</b>	<b>5,439</b>
<b>Total</b>	<b>100,280</b>	<b>8,022</b>	<b>104,543</b>	<b>8,365</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 33: CRB-C Geographic analysis of credit exposure**

This table shows exposure at default pre-CCF and pre-CRM, broken down by credit exposure class and geographic location of the counterparty.

Barclays Group		United Kingdom	Europe	France	Germany	Italy	Switzerland	Americas	United States	Asia	Japan	Africa and Middle East	Total
As at 31 December 2021		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	227	29,378	—	—	—	29,378	53,552	51,540	11,999	5,505	—	95,156
2	Institutions	4,773	5,024	2,002	910	23	121	8,851	7,425	2,383	1,690	240	21,271
3	Corporates	58,398	15,838	3,423	1,867	963	1,267	59,006	54,842	1,940	525	963	136,145
4	Retail	229,894	11,318	1	6,279	5,029	6	3	3	1	—	1	241,216
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—
6	<b>Total IRB approach</b>	<b>293,292</b>	<b>61,558</b>	<b>5,426</b>	<b>9,056</b>	<b>6,015</b>	<b>30,772</b>	<b>121,412</b>	<b>113,810</b>	<b>16,322</b>	<b>7,720</b>	<b>1,204</b>	<b>493,788</b>
7	Central governments or central banks	181,736	56,062	29,404	19,583	1,900	525	6,631	6,277	6,481	6,257	1,025	251,935
8	Regional governments or local authorities	7,587	306	—	295	—	—	1,164	13	360	—	—	9,417
9	Public sector entities	1,315	4,251	759	3,035	—	30	307	100	1	—	—	5,874
10	Multilateral development banks	223	1,724	195	—	—	—	2,751	2,751	579	—	37	5,314
11	International organisations	—	558	—	—	—	—	—	—	—	—	—	558
12	Institutions	302	1,493	363	57	108	395	1,806	710	2,218	30	268	6,087
13	Corporates	17,192	11,689	1,003	646	1,203	1,006	29,228	21,012	4,485	293	3,362	65,956
14	Retail	16,312	5,089	9	1,922	2	10	85,537	85,529	57	—	19	107,014
15	Secured by mortgages on immovable property	6,526	1,709	529	5	34	163	635	98	161	—	501	9,532
16	Exposures in default	1,607	362	79	31	50	33	752	612	36	—	88	2,845
17	Items associated with particularly high risk	1,008	103	4	—	27	9	807	697	38	7	4	1,960
18	Covered bonds	456	654	143	70	—	—	—	—	—	—	—	1,110
19	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—
20	Collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—
21	Equity exposures	23	13	—	—	—	—	2	2	—	—	813	851
22	Other exposures	3,721	258	3	17	6	159	57	53	149	14	32	4,217
23	<b>Total standardised approach</b>	<b>238,008</b>	<b>84,271</b>	<b>32,491</b>	<b>25,661</b>	<b>3,330</b>	<b>2,330</b>	<b>129,677</b>	<b>117,854</b>	<b>14,565</b>	<b>6,601</b>	<b>6,149</b>	<b>472,670</b>
24	<b>Total</b>	<b>531,300</b>	<b>145,829</b>	<b>37,917</b>	<b>34,717</b>	<b>9,345</b>	<b>33,102</b>	<b>251,089</b>	<b>231,664</b>	<b>30,887</b>	<b>14,321</b>	<b>7,353</b>	<b>966,458</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 33: CRB-C Geographic analysis of credit exposure – continued**

Barclays Group		United Kingdom	Europe	France	Germany	Italy	Switzerland	Americas	United States	Asia	Japan	Africa and Middle East	Total
As at 31 December 2020		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	273	29,487	—	—	—	29,487	47,973	46,081	21,062	15,210	—	98,795
2	Institutions	6,236	6,281	2,688	1,014	42	78	9,672	7,657	1,445	815	278	23,912
3	Corporates	67,444	19,389	3,924	2,885	809	1,182	60,668	56,163	1,015	292	1,074	149,590
4	Retail	228,172	11,997	1	5,963	6,021	8	4	4	1	—	1	240,175
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—
6	<b>Total IRB approach</b>	<b>302,125</b>	<b>67,154</b>	<b>6,613</b>	<b>9,862</b>	<b>6,872</b>	<b>30,755</b>	<b>118,317</b>	<b>109,905</b>	<b>23,523</b>	<b>16,317</b>	<b>1,353</b>	<b>512,472</b>
7	Central governments or central banks	138,711	53,896	23,862	17,073	2,552	648	8,186	8,083	12,359	12,167	1,150	214,302
8	Regional governments or local authorities	8,700	448	—	448	—	—	1,482	—	330	—	—	10,960
9	Public sector entities	925	7,456	1,811	4,874	9	4	286	194	—	—	3	8,670
10	Multilateral development banks	450	2,543	222	—	—	—	3,606	3,605	546	—	64	7,209
11	International organisations	—	734	—	—	—	—	—	—	—	—	—	734
12	Institutions	480	1,130	439	6	17	47	1,854	484	2,360	8	259	6,083
13	Corporates	18,072	11,311	1,346	895	1,294	894	22,187	16,925	4,584	206	2,701	58,855
14	Retail	18,979	5,516	114	1,801	1	29	77,301	77,192	18	—	67	101,881
15	Secured by mortgages on immovable property	6,185	1,814	569	6	15	151	774	67	137	—	496	9,406
16	Exposures in default	686	617	112	184	62	14	438	295	29	—	91	1,861
17	Items associated with particularly high risk	753	87	12	—	17	9	556	487	43	7	5	1,444
18	Covered bonds	752	1,134	405	128	—	—	—	—	—	—	—	1,886
19	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—
20	Collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—
21	Equity exposures	51	11	—	—	—	—	4	4	—	—	657	723
22	Other exposures	4,346	270	6	21	39	148	38	35	111	21	59	4,824
23	<b>Total standardised approach</b>	<b>199,090</b>	<b>86,967</b>	<b>28,898</b>	<b>25,436</b>	<b>4,006</b>	<b>1,944</b>	<b>116,712</b>	<b>107,371</b>	<b>20,517</b>	<b>12,409</b>	<b>5,552</b>	<b>428,838</b>
24	<b>Total</b>	<b>501,215</b>	<b>154,121</b>	<b>35,511</b>	<b>35,298</b>	<b>10,878</b>	<b>32,699</b>	<b>235,029</b>	<b>217,276</b>	<b>44,040</b>	<b>28,726</b>	<b>6,905</b>	<b>941,310</b>

Exposures at default pre-CCF and CRM increased by £25.1bn to £966.5bn. The key movements by geographical area were as follows:

- United Kingdom exposures increased by £30.1bn to £531.3bn primarily due to increase in Group liquidity pool balances.
- Europe exposures decreased by £8.3bn to £145.8bn primarily due to decrease in central government and public sector balances in the Group liquidity pool and decrease in corporate lending.
- Americas exposures increased by £16.1bn to £251.1bn primarily due to increased corporate and retail lending and cash at central bank balances due to change in Group liquidity pool.
- Asia exposures decreased by £13.2bn to £30.9bn primarily due to decrease in cash at central bank balances due to change in the Group liquidity pool.

## Risk and capital position review

### Analysis of credit risk continued

**Table 33a: CRB-C Geographic analysis of credit exposure for significant subsidiary**

Barclays Bank PLC		United Kingdom	Europe	France	Germany	Italy	Switzerland	Americas	United States	Asia	Japan	Africa and Middle East	Total
As at 31 December 2021		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	227	29,378	—	—	—	29,378	53,548	51,540	11,536	5,080	—	94,689
2	Institutions	4,537	4,192	1,723	913	9	121	7,560	6,531	1,229	601	209	17,727
3	Corporates	44,214	9,486	1,394	1,201	183	1,273	57,591	53,476	1,929	525	896	114,116
4	Retail	2	514	—	—	513	—	—	—	—	—	—	516
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—
6	<b>Total IRB approach</b>	<b>48,980</b>	<b>43,570</b>	<b>3,117</b>	<b>2,114</b>	<b>705</b>	<b>30,772</b>	<b>118,699</b>	<b>111,547</b>	<b>14,694</b>	<b>6,206</b>	<b>1,105</b>	<b>227,048</b>
7	Central governments or central banks	80,934	34,372	29,173	1,721	1,770	—	—	—	106	30	1,020	116,432
8	Regional governments or local authorities	526	205	—	205	—	—	13	13	—	—	—	744
9	Public sector entities	312	2,190	475	1,303	—	30	73	72	—	—	—	2,575
10	Multilateral development banks	184	1,251	115	—	—	—	2,081	2,081	256	—	—	3,772
11	International organisations	—	477	—	—	—	—	—	—	—	—	—	477
12	Institutions	48,224	10,296	21	19	214	1,326	9,960	9,566	5,231	2,472	268	73,979
13	Corporates	78,167	9,721	401	128	88	849	63,864	27,422	4,014	293	2,041	157,807
14	Retail	2,334	210	7	1	2	8	10	6	54	—	11	2,619
15	Secured by mortgages on immovable property	3,854	1,291	442	4	30	43	498	96	149	—	421	6,213
16	Exposures in default	253	175	55	7	—	10	532	483	33	—	68	1,061
17	Items associated with particularly high risk	10	21	—	—	—	9	226	226	3	3	—	260
18	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—
19	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—
20	Collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—
21	Equity exposures	2,581	—	—	—	—	—	82	—	—	—	—	2,663
22	Other exposures	1,454	22	—	—	—	1	—	—	4	—	32	1,512
23	<b>Total standardised approach</b>	<b>218,833</b>	<b>60,231</b>	<b>30,689</b>	<b>3,388</b>	<b>2,104</b>	<b>2,276</b>	<b>77,339</b>	<b>39,965</b>	<b>9,850</b>	<b>2,798</b>	<b>3,861</b>	<b>370,114</b>
24	<b>Total</b>	<b>267,813</b>	<b>103,801</b>	<b>33,806</b>	<b>5,502</b>	<b>2,809</b>	<b>33,048</b>	<b>196,038</b>	<b>151,512</b>	<b>24,544</b>	<b>9,004</b>	<b>4,966</b>	<b>597,162</b>



## Risk and capital position review

### Analysis of credit risk continued

**Table 33a: CRB-C Geographic analysis of credit exposure for significant subsidiary - continued**

Barclays Bank PLC		United Kingdom	Europe	France	Germany	Italy	Switzerland	Americas	United States	Asia	Japan	Africa and Middle East	Total
As at 31 December 2020		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	274	29,486	—	—	—	29,487	47,969	46,080	20,852	15,038	110	98,691
2	Institutions	6,261	5,286	2,284	1,017	16	76	7,770	6,716	1,707	843	234	21,258
3	Corporates	50,428	10,637	727	1,580	36	1,181	60,373	55,887	1,067	292	1,058	123,563
4	Retail	2	610	—	—	611	—	1	1	—	—	—	613
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—
6	<b>Total IRB approach</b>	56,965	46,019	3,011	2,597	663	30,744	116,113	108,684	23,626	16,173	1,402	244,125
7	Central governments or central banks	68,129	33,404	23,468	1,498	2,382	—	—	—	79	28	1,146	102,758
8	Regional governments or local authorities	521	166	—	166	—	—	—	—	—	—	—	687
9	Public sector entities	200	4,259	1,422	2,172	—	4	95	95	—	—	3	4,557
10	Multilateral development banks	373	1,616	176	—	—	—	2,571	2,571	254	—	42	4,856
11	International organisations	—	603	—	—	—	—	—	—	—	—	—	603
12	Institutions	38,330	10,780	62	1	214	1,343	9,726	8,861	7,045	3,907	258	66,139
13	Corporates	66,758	8,439	346	326	74	819	59,880	22,625	4,198	203	1,924	141,199
14	Retail	3,152	451	101	1	1	15	60	7	14	—	38	3,715
15	Secured by mortgages on immovable property	3,365	1,465	453	5	10	48	579	63	113	—	366	5,888
16	Exposures in default	257	334	49	119	—	8	174	89	28	—	79	872
17	Items associated with particularly high risk	4	20	—	—	—	9	109	107	3	3	—	136
18	Covered bonds	—	59	59	—	—	—	—	—	—	—	—	59
19	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—
20	Collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—
21	Equity exposures	2,679	256	—	—	—	—	77	4	—	—	—	3,012
22	Other exposures	1,448	15	—	—	—	1	—	—	2	—	58	1,523
23	<b>Total standardised approach</b>	185,216	61,867	26,136	4,288	2,681	2,247	73,271	34,422	11,736	4,141	3,914	336,004
24	<b>Total</b>	242,181	107,886	29,147	6,885	3,344	32,991	189,384	143,106	35,362	20,314	5,316	580,129

## Risk and capital position review

### Analysis of credit risk continued

**Table 34: CRB-D - Concentration of exposures by industry**

This table shows exposure at default pre-CCF and pre-CRM, broken down by credit exposure class and the industrial sector associated with the counterparty.

Barclays Group		Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply	Construction	Wholesale and retail trade	Transport and storage	Accommodation and food service activities	Information and communication	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertainment and recreation	Other services	Total	
		€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m
<b>As at 31 December 2021</b>																					
1	Central governments or central banks	—	—	—	—	—	—	—	—	—	—	—	—	—	21,398	—	—	—	73,758	95,156	
2	Institutions	—	35	46	1,232	446	39	45	761	—	—	1,400	—	15	3,131	3,096	83	—	10,942	21,271	
3	Corporates	3,075	7,742	24,614	10,403	2,357	3,014	11,073	4,308	3,183	8,851	21,626	4,137	5,769	108	1,661	6,345	1,610	16,269	136,145	
4	Retail	1,519	21	396	2	16	503	959	155	437	163	1,410	402	305	—	121	392	158	234,257	241,216	
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	<b>Total IRB approach</b>	<b>4,594</b>	<b>7,798</b>	<b>25,056</b>	<b>11,637</b>	<b>2,819</b>	<b>3,556</b>	<b>12,077</b>	<b>5,224</b>	<b>3,620</b>	<b>9,014</b>	<b>24,436</b>	<b>4,539</b>	<b>6,089</b>	<b>24,637</b>	<b>4,878</b>	<b>6,820</b>	<b>1,768</b>	<b>335,226</b>	<b>493,788</b>	
7	Central governments or central banks	—	—	163	—	—	—	—	—	—	—	—	—	—	37,844	—	—	—	213,928	251,935	
8	Regional governments or local authorities	—	—	—	—	—	—	—	—	—	—	—	—	—	9,417	—	—	—	—	9,417	
9	Public sector entities	—	—	—	236	1	—	—	56	—	—	209	—	—	1,400	427	47	—	3,498	5,874	
10	Multilateral development banks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,314	5,314	
11	International organisations	—	—	—	—	—	—	—	—	—	—	—	—	558	—	—	—	—	—	558	
12	Institutions	—	—	3	—	—	—	—	—	—	—	—	82	—	—	—	—	—	6,002	6,087	
13	Corporates	61	1,043	6,156	1,285	121	1,413	4,056	2,072	323	2,553	3,639	733	3,786	—	166	706	139	37,704	65,956	
14	Retail	283	10	591	10	39	1,639	1,847	521	778	496	921	1,016	847	—	141	364	232	97,279	107,014	
15	Secured by mortgages on immovable property	9	5	24	—	11	41	58	—	22	—	840	1	50	—	7	39	1	8,424	9,532	
16	Exposures in default	26	14	67	10	5	145	175	97	106	55	215	77	503	—	29	57	20	1,244	2,845	
17	Items associated with particularly high risk	25	372	18	—	—	—	12	56	—	329	—	10	52	—	—	—	3	1,083	1,960	
18	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,110	1,110	
19	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20	Collective investments undertakings(CIU)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21	Equity exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	851	851	
22	Other exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,217	4,217	
23	<b>Total standardised approach</b>	<b>404</b>	<b>1,444</b>	<b>7,022</b>	<b>1,541</b>	<b>177</b>	<b>3,238</b>	<b>6,148</b>	<b>2,802</b>	<b>1,229</b>	<b>3,433</b>	<b>5,824</b>	<b>1,919</b>	<b>5,796</b>	<b>48,661</b>	<b>770</b>	<b>1,213</b>	<b>395</b>	<b>380,654</b>	<b>472,670</b>	
24	<b>Total</b>	<b>4,998</b>	<b>9,242</b>	<b>32,078</b>	<b>13,178</b>	<b>2,996</b>	<b>6,794</b>	<b>18,225</b>	<b>8,026</b>	<b>4,849</b>	<b>12,447</b>	<b>30,260</b>	<b>6,458</b>	<b>11,885</b>	<b>73,298</b>	<b>5,648</b>	<b>8,033</b>	<b>2,163</b>	<b>715,880</b>	<b>966,458</b>	

## Risk and capital position review

### Analysis of credit risk continued

**Table 34: CRB-D - Concentration of exposures by industry - continued**

Barclays Group As at 31 December 2020		Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply	Construction	Wholesale and retail trade	Transport and storage	Accommodation and food service activities	Information and communication	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertainment and recreation	Other services	Total
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	—	—	—	—	—	—	—	—	—	—	—	—	—	18,397	—	—	—	80,398	98,795
2	Institutions	—	36	41	1,315	643	37	44	965	—	38	983	—	16	2,819	3,305	76	—	13,594	23,912
3	Corporates	3,135	8,737	28,480	9,742	2,132	3,780	10,858	5,048	3,456	9,843	26,206	6,202	6,702	99	1,616	6,702	1,592	15,261	149,590
4	Retail	1,620	30	423	3	20	540	1,084	168	500	176	1,429	441	335	—	134	406	169	232,697	240,175
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	<b>Total IRB approach</b>	4,755	8,802	28,944	11,060	2,795	4,357	11,986	6,181	3,956	10,057	28,618	6,643	7,053	21,315	5,055	7,184	1,761	341,950	512,472
7	Central governments or central banks	—	—	—	—	—	—	—	—	—	—	—	—	—	48,877	—	—	—	165,425	214,302
8	Regional governments or local authorities	—	—	—	—	—	—	—	—	—	—	—	—	—	10,960	—	—	—	—	10,960
9	Public sector entities	—	—	—	128	1	—	—	112	—	—	92	—	—	1,519	490	36	—	6,292	8,670
10	Multilateral development banks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,209	7,209
11	International organisations	—	—	—	—	—	—	—	—	—	—	—	—	607	—	—	—	—	127	734
12	Institutions	—	—	3	—	—	—	—	—	—	—	—	1	—	20	1	22	—	6,036	6,083
13	Corporates	85	1,268	6,712	1,458	273	1,265	3,914	1,626	537	2,765	1,965	918	4,206	—	57	552	154	31,100	58,855
14	Retail	289	23	788	18	50	1,819	2,228	600	969	611	1,017	1,215	1,070	—	175	434	268	90,307	101,881
15	Secured by mortgages on immovable property	8	5	21	—	9	26	57	4	120	2	926	16	54	—	7	41	1	8,109	9,406
16	Exposures in default	23	83	68	—	5	103	179	29	62	90	165	22	123	—	5	17	8	879	1,861
17	Items associated with particularly high risk	12	386	37	—	—	—	12	49	—	158	15	6	30	—	—	—	—	739	1,444
18	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,886	1,886
19	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	Collective investments undertakings(CIU)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21	Equity exposures	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	719	723
22	Other exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,824	4,824
23	<b>Total standardised approach</b>	417	1,765	7,629	1,604	338	3,213	6,394	2,420	1,688	3,626	4,180	2,178	6,090	61,376	735	1,102	431	323,652	428,838
24	<b>Total</b>	5,172	10,567	36,573	12,664	3,133	7,570	18,380	8,601	5,644	13,683	32,798	8,821	13,143	82,691	5,790	8,286	2,192	665,602	941,310

Exposures at default pre-CCF and CRM increased by £25.1bn to £966.5bn. The key movements by industry sector were as follows:

- Public administration and defence, compulsory social security exposures decreased by £9.4bn to £73.3bn primarily due to a change in the Group liquidity pool composition.
- Other services exposures increased by £50.3bn to £715.9bn primarily due to an increase in the Group liquidity pool and increased corporate and retail lending.

## Risk and capital position review

### Analysis of credit risk continued

**Table 34a: CRB-D - Concentration of exposures by industry for significant subsidiary**

		Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply	Construction	Wholesale and retail trade	Transport and storage	Accommodation and food service activities	Information and communication	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertainment and recreation	Other services	Total	
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>Barclays Bank PLC</b>																					
<b>As at 31 December 2021</b>																					
1	Central governments or central banks	—	—	—	—	—	—	—	—	—	—	—	—	—	21,398	—	—	—	73,291	94,689	
2	Institutions	—	35	46	1,039	447	39	45	737	—	—	1,397	—	15	3,131	3,095	60	—	7,641	17,727	
3	Corporates	53	6,567	22,517	9,372	2,292	2,703	10,091	3,793	2,792	8,746	13,743	3,717	5,474	108	1,505	5,745	1,453	13,445	114,116	
4	Retail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	516	516
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	<b>Total IRB approach</b>	<b>53</b>	<b>6,602</b>	<b>22,563</b>	<b>10,411</b>	<b>2,739</b>	<b>2,742</b>	<b>10,136</b>	<b>4,530</b>	<b>2,792</b>	<b>8,746</b>	<b>15,140</b>	<b>3,717</b>	<b>5,489</b>	<b>24,637</b>	<b>4,600</b>	<b>5,805</b>	<b>1,453</b>	<b>94,893</b>	<b>227,048</b>	
7	Central governments or central banks	—	—	163	—	—	—	—	—	—	—	—	—	—	23,816	—	—	—	—	92,453	116,432
8	Regional governments or local authorities	—	—	—	—	—	—	—	—	—	—	—	—	—	744	—	—	—	—	—	744
9	Public sector entities	—	—	—	236	1	—	—	32	—	—	—	—	—	475	112	20	—	—	1,699	2,575
10	Multilateral development banks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,772	3,772
11	International organisations	—	—	—	—	—	—	—	—	—	—	—	—	477	—	—	—	—	—	—	477
12	Institutions	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	73,975	73,979
13	Corporates	11	810	4,458	950	117	997	3,616	1,806	269	2,155	3,843	543	4,809	—	157	670	119	132,477	157,807	
14	Retail	71	7	221	4	10	286	390	74	68	162	266	246	221	—	41	85	51	416	2,619	
15	Secured by mortgages on immovable property	—	5	16	—	11	—	31	—	22	—	778	1	49	—	—	12	1	5,287	6,213	
16	Exposures in default	4	14	15	9	1	1	14	38	—	18	142	1	423	—	16	27	—	338	1,061	
17	Items associated with particularly high risk	—	1	4	—	—	—	11	49	—	132	—	—	—	—	—	—	3	60	260	
18	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	Collective investments undertakings(CIU)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21	Equity exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,663	2,663
22	Other exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,512	1,512
23	<b>Total standardised approach</b>	<b>86</b>	<b>837</b>	<b>4,881</b>	<b>1,199</b>	<b>140</b>	<b>1,284</b>	<b>4,062</b>	<b>1,999</b>	<b>359</b>	<b>2,467</b>	<b>5,029</b>	<b>791</b>	<b>5,979</b>	<b>25,035</b>	<b>326</b>	<b>814</b>	<b>174</b>	<b>314,652</b>	<b>370,114</b>	
24	<b>Total</b>	<b>139</b>	<b>7,439</b>	<b>27,444</b>	<b>11,610</b>	<b>2,879</b>	<b>4,026</b>	<b>14,198</b>	<b>6,529</b>	<b>3,151</b>	<b>11,213</b>	<b>20,169</b>	<b>4,508</b>	<b>11,468</b>	<b>49,672</b>	<b>4,926</b>	<b>6,619</b>	<b>1,627</b>	<b>409,545</b>	<b>597,162</b>	

## Risk and capital position review

### Analysis of credit risk continued

**Table 34a: CRB-D - Concentration of exposures by industry for significant subsidiary - continued**

Barclays Bank PLC		Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply	Construction	Wholesale and retail trade	Transport and storage	Accommodation and food service activities	Information and communication	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertainment and recreation	Other services	Total	
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2020</b>																					
1	Central governments or central banks	—	—	—	—	—	—	—	—	—	—	—	—	—	18,369	—	—	—	80,322	98,691	
2	Institutions	—	36	41	1,001	599	36	44	961	—	38	983	—	16	2,820	3,302	49	—	11,332	21,258	
3	Corporates	72	7,405	26,160	8,350	1,999	3,343	9,781	4,571	3,071	8,391	14,862	5,831	6,468	99	1,444	6,209	1,442	14,065	123,563	
4	Retail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	613	613	
5	Equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	<b>Total IRB approach</b>	<b>72</b>	<b>7,441</b>	<b>26,201</b>	<b>9,351</b>	<b>2,598</b>	<b>3,379</b>	<b>9,825</b>	<b>5,532</b>	<b>3,071</b>	<b>8,429</b>	<b>15,845</b>	<b>5,831</b>	<b>6,484</b>	<b>21,288</b>	<b>4,746</b>	<b>6,258</b>	<b>1,442</b>	<b>106,332</b>	<b>244,125</b>	
7	Central governments or central banks	—	—	—	—	—	—	—	—	—	—	—	—	—	27,086	—	—	—	75,672	102,758	
8	Regional governments or local authorities	—	—	—	—	—	—	—	—	—	—	—	—	—	687	—	—	—	—	687	
9	Public sector entities	—	—	—	119	1	—	—	9	—	—	—	—	—	1,163	117	6	—	3,142	4,557	
10	Multilateral development banks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,856	4,856	
11	International organisations	—	—	—	—	—	—	—	—	—	—	—	—	487	—	—	—	—	116	603	
12	Institutions	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66,136	66,139	
13	Corporates	20	779	4,859	1,061	125	658	3,252	1,270	361	2,342	1,800	586	4,796	—	47	485	137	118,621	141,199	
14	Retail	69	20	362	12	17	269	485	98	75	217	256	303	319	—	60	103	63	987	3,715	
15	Secured by mortgages on immovable property	1	5	19	—	9	3	39	4	120	2	869	16	54	—	—	12	1	4,735	5,888	
16	Exposures in default	5	19	24	—	1	69	112	15	24	77	118	1	36	—	—	8	—	363	872	
17	Items associated with particularly high risk	—	3	18	—	—	—	11	42	—	23	—	—	3	—	—	—	—	35	136	
18	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	59	59	
19	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20	Collective investments undertakings(CIU)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21	Equity exposures	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	3,008	3,012	
22	Other exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,523	1,523	
23	<b>Total standardised approach</b>	<b>95</b>	<b>826</b>	<b>5,285</b>	<b>1,192</b>	<b>153</b>	<b>999</b>	<b>3,904</b>	<b>1,437</b>	<b>580</b>	<b>2,661</b>	<b>3,043</b>	<b>906</b>	<b>5,695</b>	<b>28,936</b>	<b>224</b>	<b>614</b>	<b>201</b>	<b>279,253</b>	<b>336,004</b>	
24	<b>Total</b>	<b>167</b>	<b>8,267</b>	<b>31,486</b>	<b>10,543</b>	<b>2,751</b>	<b>4,378</b>	<b>13,729</b>	<b>6,969</b>	<b>3,651</b>	<b>11,090</b>	<b>18,888</b>	<b>6,737</b>	<b>12,179</b>	<b>50,224</b>	<b>4,970</b>	<b>6,872</b>	<b>1,643</b>	<b>385,585</b>	<b>580,129</b>	

## Risk and capital position review

### Analysis of credit risk continued

**Table 35: CRB-E - Residual maturity analysis credit exposures**

This table shows exposure at default pre-CCF and pre-CRM, broken down by credit exposure class and residual maturity. Residual maturity is the remaining number of years before an obligation becomes due according to the existing terms of the agreement.

Barclays Group		Net Exposure Value				No stated maturity €m	Total €m
		On Demand €m	<= 1 year €m	> 1 year <= 5 years €m	> 5 years €m		
<b>As at 31 December 2021</b>							
1	Central governments or central banks	73,638	2,082	10,577	8,859	—	95,156
2	Institutions	4,699	4,100	7,814	4,617	41	21,271
3	Corporates	11,476	26,880	82,005	15,011	773	136,145
4	Retail	59,571	1,784	14,101	165,760	—	241,216
5	Equity	—	—	—	—	—	—
6	<b>Total IRB approach</b>	<b>149,384</b>	<b>34,846</b>	<b>114,497</b>	<b>194,247</b>	<b>814</b>	<b>493,788</b>
7	Central governments or central banks	185,538	13,151	37,863	15,258	125	251,935
8	Regional governments or local authorities	473	301	1,130	7,513	—	9,417
9	Public sector entities	27	1,909	2,574	1,363	1	5,874
10	Multilateral development banks	—	557	2,941	1,816	—	5,314
11	International organisations	—	64	—	494	—	558
12	Institutions	1,052	2,706	1,589	740	—	6,087
13	Corporates	12,729	23,973	21,900	7,269	85	65,956
14	Retail	94,237	768	7,697	4,312	—	107,014
15	Secured by mortgages on immovable property	—	1,516	2,932	5,084	—	9,532
16	Exposures in default	283	1,064	1,078	395	25	2,845
17	Items associated with particularly high risk	—	—	—	—	1,960	1,960
18	Covered bonds	—	330	331	449	—	1,110
19	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—
20	Collective investments undertakings	—	—	—	—	—	—
21	Equity exposures	—	—	—	—	851	851
22	Other exposures	—	—	—	117	4,100	4,217
23	<b>Total standardised approach</b>	<b>294,339</b>	<b>46,339</b>	<b>80,035</b>	<b>44,810</b>	<b>7,147</b>	<b>472,670</b>
24	<b>Total</b>	<b>443,723</b>	<b>81,185</b>	<b>194,532</b>	<b>239,057</b>	<b>7,961</b>	<b>966,458</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 35: CRB-E - Residual maturity analysis credit exposures - continued**

Barclays Group		Net Exposure Value				No stated maturity £m	Total £m
		On Demand £m	<= 1 year £m	> 1 year <= 5 years £m	> 5 years £m		
<b>As at 31 December 2020</b>							
1	Central governments or central banks	80,558	2,317	8,337	7,583	—	98,795
2	Institutions	4,570	3,227	10,588	5,527	—	23,912
3	Corporates	12,524	24,604	93,733	18,729	—	149,590
4	Retail	66,201	1,550	14,596	157,828	—	240,175
5	Equity	—	—	—	—	—	—
6	<b>Total IRB approach</b>	163,853	31,698	127,254	189,667	—	512,472
7	Central governments or central banks	141,016	32,389	21,579	19,201	117	214,302
8	Regional governments or local authorities	459	140	1,223	9,138	—	10,960
9	Public sector entities	33	2,302	3,412	2,923	—	8,670
10	Multilateral development banks	—	771	3,753	2,685	—	7,209
11	International organisations	—	—	231	503	—	734
12	Institutions	644	3,421	1,657	361	—	6,083
13	Corporates	10,543	21,769	19,708	6,835	—	58,855
14	Retail	87,692	579	3,650	9,960	—	101,881
	Secured by mortgages on immovable						
15	property	—	1,632	2,853	4,921	—	9,406
16	Exposures in default	353	454	385	669	—	1,861
17	Items associated with particularly high risk	—	—	—	—	1,444	1,444
18	Covered bonds	—	379	814	693	—	1,886
	Claims on institutions and corporate with a						
19	short-term credit assessment	—	—	—	—	—	—
20	Collective investments undertakings	—	—	—	—	—	—
21	Equity exposures	—	—	—	—	723	723
22	Other exposures	—	—	—	—	4,824	4,824
23	<b>Total standardised approach</b>	240,740	63,836	59,265	57,889	7,108	428,838
24	<b>Total</b>	404,593	95,534	186,519	247,556	7,108	941,310

Exposures at default pre-CCF and CRM increased by £25.1bn to £966.5bn. The key movements by residual maturity were as follows:

- On demand exposures increased £39.1bn to £443.7bn primarily due to an increase in the Group liquidity pool.
- Exposures with residual maturity less than 1 year decreased £14.3bn to £81.2bn primarily due to decrease in bond positions and collaterals placed with the Bank of England.

## Risk and capital position review

### Analysis of credit risk continued

**Table 35a: CRB-E - Residual maturity analysis of credit exposures for significant subsidiary**

Barclays Bank PLC		Net Exposure Value					Total £m
		On Demand £m	<= 1 year £m	> 1 year <= 5 years £m	> 5 years £m	No stated maturity £m	
<b>As at 31 December 2021</b>							
1	Central Governments or central banks	73,210	2,043	10,577	8,859	—	94,689
2	Institutions	1,725	3,742	7,650	4,569	41	17,727
3	Corporates	10,746	22,926	72,743	7,174	527	114,116
4	Retail	—	422	26	68	—	516
5	Equity	—	—	—	—	—	—
6	<b>Total IRB approach</b>	<b>85,681</b>	<b>29,133</b>	<b>90,996</b>	<b>20,670</b>	<b>568</b>	<b>227,048</b>
7	Central governments or central banks	87,440	8,651	8,154	12,158	29	116,432
8	Regional governments or local authorities	473	2	114	155	—	744
9	Public sector entities	27	25	1,688	834	1	2,575
10	Multilateral development banks	—	185	1,939	1,648	—	3,772
11	International organisations	—	—	—	477	—	477
12	Institutions	57,713	4,492	3,069	8,705	—	73,979
13	Corporates	91,554	26,532	19,942	19,668	111	157,807
14	Retail	2,258	57	184	120	—	2,619
15	Secured by mortgages on immovable property	—	848	2,277	3,088	—	6,213
16	Exposures in default	42	556	364	74	25	1,061
17	Items associated with particularly high risk	—	—	—	—	260	260
18	Covered bonds	—	—	—	—	—	—
19	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—
20	Collective investments undertakings	—	—	—	—	—	—
21	Equity exposures	—	—	—	—	2,663	2,663
22	Other exposures	—	—	—	—	1,512	1,512
23	<b>Total standardised approach</b>	<b>239,507</b>	<b>41,348</b>	<b>37,731</b>	<b>46,927</b>	<b>4,601</b>	<b>370,114</b>
24	<b>Total</b>	<b>325,188</b>	<b>70,481</b>	<b>128,727</b>	<b>67,597</b>	<b>5,169</b>	<b>597,162</b>



## Risk and capital position review

### Analysis of credit risk continued

**Table 35a: CRB-E - Residual maturity analysis of credit exposures for significant subsidiary - continued**

Barclays Bank PLC		Net Exposure Value					Total £m
		On Demand £m	<= 1 year £m	> 1 year <= 5 years £m	> 5 years £m	No stated maturity £m	
<b>As at 31 December 2020</b>							
1	Central governments or central banks	80,493	2,278	8,337	7,583	—	98,691
2	Institutions	2,588	2,888	10,307	5,475	—	21,258
3	Corporates	11,719	22,212	81,727	7,905	—	123,563
4	Retail	—	83	449	81	—	613
5	Equity	—	—	—	—	—	—
6	<b>Total IRB approach</b>	94,800	27,461	100,820	21,044	—	244,125
7	Central governments or central banks	66,793	11,923	7,932	16,079	31	102,758
8	Regional governments or local authorities	459	28	48	152	—	687
9	Public sector entities	32	131	2,296	2,098	—	4,557
10	Multilateral development banks	—	60	2,330	2,466	—	4,856
11	International organisations	—	—	147	456	—	603
12	Institutions <sup>a</sup>	48,540	6,385	2,979	8,236	—	66,139
13	Corporates <sup>a</sup>	80,080	38,137	16,594	6,388	—	141,199
14	Retail	3,097	79	342	197	—	3,715
	Secured by mortgages on immovable						
15	property	—	801	2,211	2,876	—	5,888
16	Exposures in default	28	316	266	262	—	872
17	Items associated with particularly high risk	—	—	—	—	136	136
18	Covered bonds	—	—	—	59	—	59
	Claims on institutions and corporate with a						
19	short-term credit assessment	—	—	—	—	—	—
20	Collective investments undertakings	—	—	—	—	—	—
21	Equity exposures	—	—	—	—	3,012	3,012
22	Other exposures	—	—	—	—	1,523	1,523
23	<b>Total standardised approach</b>	199,029	57,860	35,146	39,268	4,702	336,004
24	<b>Total</b>	293,829	85,321	135,965	60,312	4,702	580,129

**Note**

a The prior period on demand and <=1 year categories have been revised for certain intra-group exposures.

## Risk and capital position review

### Analysis of credit risk continued

#### Credit risk mitigation

Barclays employs a range of techniques and strategies to actively mitigate credit risks. Within the regulatory framework this is commonly referred to as credit risk mitigation (CRM) with further details on page 178 of this document. In the case of collateral, the recognition of the migration is reflected through regulatory calculations in several different ways, depending on the nature of the collateral and the regulatory approach applied to the exposure.

Financial collateral includes, but is not exclusive of, cash, debt securities, equities and gold, that can be used to directly reduce credit exposures subject to the standardised approach. The impact of financial collateral CRM can be observed on page 47, as a component of the difference between EAD pre-CRM and EAD-post CRM.

#### Table 36: Exposures covered by guarantees and credit derivatives

This table shows the proportion of credit risk exposures, covered by funded credit protection and unfunded credit protection in the form of guarantees or credit derivatives.

Under the standardised approach, the risk weight of the underlying exposure covered is substituted by that of the credit protection provider – generally a central government or institution. Any uncovered exposure is risk weighted using the normal framework. For the STD approach, the table below has been populated post-substitution effect.

Under the advanced approach, the table is designed to show exposures for which the credit protection impact is not reflected though the loss given default (LGD), for example where it is applied directly to the EAD metric such as for exposures related to the Coronavirus Business Interruption Loan Scheme (CBILS). Where Barclays recognises AIRB eligible collateral by reducing the modelled downturn LGD metric, the AIRB values in the table below are nil.

#### Credit exposure class

Credit exposure class	Exposures covered by unfunded credit protection		Exposures covered by funded credit protection
	Standardised	Advanced IRB	Advanced IRB
	£m	£m	£m
<b>Barclays Group</b>			
<b>As at 31 December 2021</b>			
Central governments or central banks	487	—	—
Institutions	339	2	—
Corporates	712	1,176	—
Retail	7,996	546	—
Exposures in default	1,178	—	—
Items associated with high risk	—	—	—
Equity	—	—	—
Securitisation positions	—	—	—
Non-credit obligation assets	—	—	—
<b>Total</b>	<b>10,712</b>	<b>1,724</b>	<b>—</b>
<b>As at 31 December 2020</b>			
Central governments or central banks	418	—	—
Institutions	378	1	—
Corporates	725	1,407	—
Retail	9,324	562	—
Exposures in default	281	—	—
Items associated with high risk	—	—	—
Equity	—	—	—
Securitisation positions	—	—	—
Non-credit obligation assets	—	—	—
<b>Total</b>	<b>11,126</b>	<b>1,970</b>	<b>—</b>

Exposures covered by unfunded credit protection decreased by £0.7bn to £12.4bn due to reduced government backed lending.

## Risk and capital position review

### Analysis of credit risk continued

**Table 36a: Exposures covered by guarantees and credit derivatives for significant subsidiary**

Credit exposure class	Exposures covered by unfunded credit protection		Exposures covered by funded credit protection
	Standardised	Advanced IRB	Advanced IRB
	£m	£m	£m
<b>Barclays Bank PLC</b>			
<b>As at 31 December 2021</b>			
Central governments or central banks	487	—	—
Institutions	—	—	—
Corporates	450	882	—
Retail	—	—	—
Exposures in default	10	—	—
Items associated with high risk	—	—	—
Equity	—	—	—
Securitisation positions	—	—	—
Non-credit obligation assets	—	—	—
<b>Total</b>	<b>947</b>	<b>882</b>	<b>—</b>
<b>As at 31 December 2020</b>			
Central governments or central banks	418	—	—
Institutions	—	—	—
Corporates	368	1,101	—
Retail	—	—	—
Exposures in default	1	—	—
Items associated with high risk	—	—	—
Equity	—	—	—
Securitisation positions	—	—	—
Non-credit obligation assets	—	—	—
<b>Total</b>	<b>787</b>	<b>1,101</b>	<b>—</b>

**Table 37: CR3 – CRM techniques**

This table shows the use of CRM techniques broken down by loans and debt securities. This table includes unsecured and secured exposures including collateral, financial guarantees and credit derivatives for both standardised and Internal rating based approach.

Barclays Group		Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		£m	£m	£m	£m	£m
<b>As at 31 December 2021</b>						
1	Total loans	365,255	207,345	195,109	12,181	55
2	Total debt securities	85,870	1,008	51	957	—
3	<b>Total exposures</b>	<b>451,125</b>	<b>208,353</b>	<b>195,160</b>	<b>13,138</b>	<b>55</b>
4	Of which defaulted	2,155	3,861	2,693	1,168	—
<b>As at 31 December 2020</b>						
1	Total loans	315,456	203,023	190,159	12,770	94
2	Total debt securities	98,691	1,066	—	1,066	—
3	<b>Total exposures</b>	<b>414,147</b>	<b>204,089</b>	<b>190,159</b>	<b>13,836</b>	<b>94</b>
4	Of which defaulted	3,119	3,031	2,750	281	—

The total unsecured and secured exposure increased £41.2bn to £659.5bn primarily due to an increase in the Group liquidity pool.

Exposures secured by collateral increased £5.0bn to £195.2bn primarily due to an increase in mortgages.

## Risk and capital position review

### Analysis of credit risk continued

**Table 38: CR4 Standardised – Credit risk exposure and CRM effect**

This table shows the impact of CRM and credit conversion factors (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 factor 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 £m	Off-balance sheet amount £m	On-balance sheet amount £m	Off-balance sheet amount £m	RWA £m	RWA density £m
<b>Barclays Group</b>						
<b>As at 31 December 2021</b>						
1	217,964	33,971	229,353	42,332	61	0%
2	9,151	266	9,006	26	1,501	17%
3	5,617	257	5,619	130	190	3%
4	5,314	—	5,314	—	—	0%
5	558	—	558	—	—	0%
6	4,505	1,582	4,280	825	1,526	30%
7	27,029	38,927	17,440	10,346	25,446	92%
8	30,645	76,369	22,545	35	16,855	75%
9	9,430	102	9,382	51	3,548	38%
10	2,329	516	1,104	201	1,515	116%
11	1,957	3	1,957	2	2,938	150%
12	1,110	—	1,110	—	115	10%
13	—	—	—	—	—	0%
14	—	—	—	—	—	0%
15	851	—	851	—	2,127	250%
16	4,217	—	4,217	—	2,186	51%
17	<b>320,677</b>	<b>151,993</b>	<b>312,736</b>	<b>53,948</b>	<b>58,008</b>	<b>16%</b>
<b>As at 31 December 2020</b>						
1	172,121	42,181	184,333	53,304	39	0%
2	10,804	156	10,461	25	1,657	16%
3	8,309	361	8,303	115	205	2%
4	7,209	—	7,209	—	—	0%
5	734	—	734	—	—	0%
6	4,470	1,613	4,089	811	1,526	31%
7	22,298	36,557	14,151	9,254	21,335	91%
8	30,828	71,053	21,150	49	15,899	75%
9	9,335	71	9,309	28	3,567	38%
10	1,585	276	1,273	106	1,581	115%
11	1,422	22	1,422	9	2,147	150%
12	1,886	—	1,886	—	204	11%
13	—	—	—	—	—	0%
14	—	—	—	—	—	0%
15	723	—	723	—	1,767	244%
16	4,824	—	4,824	—	3,007	62%
17	<b>276,548</b>	<b>152,290</b>	<b>269,867</b>	<b>63,701</b>	<b>52,934</b>	<b>16%</b>

Further information about the key drivers for RWAs are provided in table 32.

## Risk and capital position review

### Analysis of credit risk continued

**Table 39: CR7– Effect on RWA of credit derivatives used as CRM techniques (AIRB)**

This table shows the effect of credit derivatives on the AIRB credit risk approach.

	Pre-credit derivatives RWAs		Actual RWAs	
	As at 31 December 2021	As at 31 December 2020	As at 31 December 2021	As at 31 December 2020
	€m	€m	€m	€m
<b>Barclays Group</b>				
1 <b>Exposures under foundation IRB</b>	—	—	—	—
2 Central governments and central banks	—	—	—	—
3 Institutions	—	—	—	—
4 Corporates – SME	—	—	—	—
5 Corporates – Specialised Lending	—	—	—	—
6 Corporates – Other	—	—	—	—
7 <b>Exposures under advanced IRB</b>	<b>119,914</b>	128,550	<b>119,890</b>	128,495
8 Central governments and central banks	<b>4,569</b>	5,076	<b>4,569</b>	5,076
9 Institutions	<b>3,941</b>	4,621	<b>3,941</b>	4,621
10 Corporates – SME	<b>8,310</b>	10,175	<b>8,310</b>	10,175
11 Corporates – Specialised Lending	<b>4,169</b>	5,551	<b>4,169</b>	5,551
12 Corporates – Other	<b>37,557</b>	42,736	<b>37,533</b>	42,681
13 Retail – Secured by real estate SME	—	—	—	—
14 Retail – Secured by real estate non-SME	<b>26,725</b>	23,105	<b>26,725</b>	23,105
15 Retail – Qualifying revolving	<b>12,353</b>	15,693	<b>12,353</b>	15,693
16 Retail – Other SME	<b>3,176</b>	3,366	<b>3,176</b>	3,366
17 Retail – Other non-SME	<b>3,637</b>	4,048	<b>3,637</b>	4,048
18 Equity IRB	—	—	—	—
19 Other non-credit obligation assets	<b>15,477</b>	14,179	<b>15,477</b>	14,179
20 <b>Total</b>	<b>119,914</b>	128,550	<b>119,890</b>	128,495

Numbers are aligned to the 'Detailed view of credit risk RWAs and capital requirement' table except for securitisation balances. Please see table 32 for further information on key movements.

## Risk and capital position review

### 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<sup>a</sup>.

### 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 defined in the table below<sup>b</sup>. After being assigned to a specific quality step, exposure class and maturity are then used to determine the risk weight percentage. The following table is a simplified version of the risk weight allocation process.

**Table 40: 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 41: 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	Corporates	Institutions (includes banks)			
		Sovereign method	Credit assessment method		Central governments or central banks
			Maturity > 3 months	Maturity 3 months or less	
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, amongst 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%.

Other items are generally assigned a risk weight of 100%, unless they relate to cash in hand (0%) or items in the course of collection (20%).

### Notes

a DBRS and Kroll Bond Rating Agency are used to calculate risk weights for securitisation exposures only. Please see page 191 for further details.

b The mapping of external ratings to credit quality steps applicable as at year-end 2021 are found in Commission Implementing Regulation (EU) 2016/1799 as amended (for non-securitisation exposures) and PRA Supervisory Statement SS10/18 (for securitisation positions).

## Risk and capital position review

### Analysis of credit risk continued

**Table 42: CR5-A Analysis of exposures by asset classes and risk weight pre-CCF and CRM under the standardised approach**

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

Barclays Group	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	of which: Unrated	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2021</b>																			
1 Central governments or central banks	251,874	—	—	—	—	—	—	—	—	61	—	—	—	—	—	—	251,935	579	
2 Regional governments or local authorities	1,529	—	—	—	7,888	—	—	—	—	—	—	—	—	—	—	—	9,417	7,581	
3 Public sector entities	4,802	—	—	—	1,071	—	—	—	—	1	—	—	—	—	—	—	5,874	1,048	
4 Multilateral development banks	5,314	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,314	—	
5 International organisations	558	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	558	—	
6 Institutions	—	—	—	—	4,667	—	984	—	—	434	—	—	—	2	—	—	6,087	1,039	
7 Corporates	—	—	—	—	2,314	—	3,325	—	—	59,689	625	—	—	3	—	—	65,956	57,069	
8 Retail	—	—	—	—	—	—	—	—	107,014	—	—	—	—	—	—	—	107,014	107,014	
9 Secured by mortgages on immovable property	—	—	—	—	—	9,093	—	—	21	418	—	—	—	—	—	—	9,532	9,532	
10 Exposures in default	—	—	—	—	—	—	—	—	—	906	1,939	—	—	—	—	—	2,845	2,845	
11 Items associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	1,960	—	—	—	—	—	1,960	1,960	
12 Covered bonds	—	—	—	1,071	39	—	—	—	—	—	—	—	—	—	—	—	1,110	—	
13 Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14 Claims in the form of CIU	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15 Equity exposures	—	—	—	—	—	—	—	—	—	—	—	851	—	—	—	—	851	851	
16 Other items	1,388	—	—	—	824	—	—	—	—	2,005	—	—	—	—	—	—	4,217	4,217	
<b>17 Total</b>	<b>265,465</b>	<b>—</b>	<b>—</b>	<b>1,071</b>	<b>16,803</b>	<b>9,093</b>	<b>4,309</b>	<b>—</b>	<b>107,035</b>	<b>63,514</b>	<b>4,524</b>	<b>851</b>	<b>—</b>	<b>5</b>	<b>—</b>	<b>—</b>	<b>472,670</b>	<b>193,735</b>	

## Risk and capital position review

### Analysis of credit risk continued

**Table 42: CR5-A Analysis of exposures by asset classes and risk weight pre-CCF and CRM under the standardised approach - continued**

Barclays Group	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	of which:	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	Unrated
<b>As at 31 December 2020</b>																			
1 Central governments or central banks	214,263	—	—	—	—	—	—	—	—	39	—	—	—	—	—	—	214,302	486	
2 Regional governments or local authorities	2,204	—	—	—	8,756	—	—	—	—	—	—	—	—	—	—	—	10,960	8,700	
3 Public sector entities	7,580	—	—	—	1,076	—	—	—	—	14	—	—	—	—	—	—	8,670	901	
4 Multilateral development banks	7,209	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,209	—	
5 International organisations	734	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	734	—	
6 Institutions	—	—	—	—	4,447	—	1,251	—	—	382	1	—	—	2	—	—	6,083	1,664	
7 Corporates	—	—	—	—	2,138	—	2,417	—	—	53,648	650	—	—	2	—	—	58,855	49,956	
8 Retail	—	—	—	—	—	—	—	—	101,881	—	—	—	—	—	—	—	101,881	101,881	
9 Secured by mortgages on immovable property	—	—	—	—	—	8,862	—	—	35	508	1	—	—	—	—	—	9,406	9,406	
10 Exposures in default	—	—	—	—	—	—	—	—	—	1,108	753	—	—	—	—	—	1,861	1,861	
11 Items associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	1,444	—	—	—	—	—	1,444	1,444	
12 Covered bonds	—	—	—	1,848	—	—	38	—	—	—	—	—	—	—	—	—	1,886	—	
13 Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14 Claims in the form of CIU	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15 Equity exposures	—	—	—	—	—	—	—	—	—	27	—	696	—	—	—	—	723	723	
16 Other items	1,411	—	—	—	508	—	—	—	—	2,905	—	—	—	—	—	—	4,824	4,824	
<b>17 Total</b>	<b>233,401</b>	<b>—</b>	<b>—</b>	<b>1,848</b>	<b>16,925</b>	<b>8,862</b>	<b>3,706</b>	<b>—</b>	<b>101,916</b>	<b>58,631</b>	<b>2,849</b>	<b>696</b>	<b>—</b>	<b>4</b>	<b>—</b>	<b>—</b>	<b>428,838</b>	<b>181,846</b>	

Standardised Credit Risk Exposure Pre-CCF and CRM increased £43.8bn to £472.7bn primarily due to an increase in the Group liquidity pool within the 0% risk weight category as well as an increase in IEL balances within the 75% risk weight category.



## Risk and capital position review

### Analysis of credit risk continued

**Table 43: CR5-B Analysis of exposures by asset classes and risk weight post-CCF and CRM under the 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

Barclays Group	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	of which: Unrated	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2021</b>																			
1 Central governments or central banks	271,623	—	—	—	—	—	—	—	—	62	—	—	—	—	—	—	271,685	484	
2 Regional governments or local authorities	1,526	—	—	—	7,506	—	—	—	—	—	—	—	—	—	—	—	9,032	7,200	
3 Public sector entities	4,804	—	—	—	944	—	—	—	—	1	—	—	—	—	—	—	5,749	920	
4 Multilateral development banks	5,314	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,314	—	
5 International organisations	558	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	558	—	
6 Institutions	—	—	—	—	4,116	—	611	—	—	376	—	—	—	2	—	—	5,105	816	
7 Corporates	—	—	—	—	1,767	—	1,819	—	—	23,782	415	—	—	3	—	—	27,786	22,639	
8 Retail	—	—	—	—	—	—	—	—	22,580	—	—	—	—	—	—	—	22,580	22,580	
9 Secured by mortgages on immovable property	—	—	—	—	—	9,020	—	—	20	393	—	—	—	—	—	—	9,433	9,433	
10 Exposures in default	—	—	—	—	—	—	—	—	—	884	421	—	—	—	—	—	1,305	1,305	
11 Items associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	1,959	—	—	—	—	—	1,959	1,959	
12 Covered bonds	—	—	—	1,071	39	—	—	—	—	—	—	—	—	—	—	—	1,110	—	
13 Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14 Claims in the form of CIU	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15 Equity exposures	—	—	—	—	—	—	—	—	—	—	—	851	—	—	—	—	851	851	
16 Other items	1,388	—	—	—	824	—	—	—	—	2,005	—	—	—	—	—	—	4,217	4,217	
<b>17 Total</b>	<b>285,213</b>	<b>—</b>	<b>—</b>	<b>1,071</b>	<b>15,196</b>	<b>9,020</b>	<b>2,430</b>	<b>—</b>	<b>22,600</b>	<b>27,503</b>	<b>2,795</b>	<b>851</b>	<b>—</b>	<b>5</b>	<b>—</b>	<b>—</b>	<b>366,684</b>	<b>72,404</b>	

## Risk and capital position review

### Analysis of credit risk continued

**Table 43: CR5-B Analysis of exposures by asset classes and risk weight post-CCF and CRM under the standardised approach - continued**

Barclays Group	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	of which: Unrated	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2020</b>																			
1 Central governments or central banks	237,598	—	—	—	—	—	—	—	—	39	—	—	—	—	—	—	237,637	334	
2 Regional governments or local authorities	2,202	—	—	—	8,284	—	—	—	—	—	—	—	—	—	—	—	10,486	8,227	
3 Public sector entities	7,435	—	—	—	973	—	—	—	—	10	—	—	—	—	—	—	8,418	795	
4 Multilateral development banks	7,209	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,209	—	
5 International organisations	734	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	734	—	
6 Institutions	—	—	—	—	3,705	—	864	—	—	329	1	—	—	1	—	—	4,900	1,279	
7 Corporates	—	—	—	—	1,633	—	1,388	—	—	19,989	393	—	—	2	—	—	23,405	18,326	
8 Retail	—	—	—	—	—	—	—	—	21,199	—	—	—	—	—	—	—	21,199	21,199	
9 Secured by mortgages on immovable property	—	—	—	—	—	8,814	—	—	31	491	1	—	—	—	—	—	9,337	9,337	
10 Exposures in default	—	—	—	—	—	—	—	—	—	975	404	—	—	—	—	—	1,379	1,379	
11 Items associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	1,431	—	—	—	—	—	1,431	1,431	
12 Covered bonds	—	—	—	1,848	—	—	38	—	—	—	—	—	—	—	—	—	1,886	—	
13 Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14 Claims in the form of CIU	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15 Equity exposures	—	—	—	—	—	—	—	—	—	27	—	696	—	—	—	—	723	723	
16 Other items	1,410	—	—	—	508	—	—	—	—	2,906	—	—	—	—	—	—	4,824	4,824	
17 <b>Total</b>	256,588	—	—	1,848	15,103	8,814	2,290	—	21,230	24,766	2,230	696	—	3	—	—	333,568	67,854	

Standardised Credit Risk Exposure Post-CCF and CRM increased £33.1bn to £366.7bn primarily due to an increase in the Group liquidity pool within the 0% risk weight category.

## Risk and capital position review

### Analysis of credit risk continued

#### Credit quality analysis of AIRB exposures

The following section provides breakdowns of inputs into risk weighted asset calculations. Please note that risk weights and risk factors may be volatile in granular breakdowns of wholesale exposures, especially in categories that are more sparsely populated. This is often due to the addition or removal of a relatively large exposure to or from narrow categories when its risk factors are different to the category average. This happens in the normal course of business, for instance, following new lending, repayments, or syndications. See page 169 for more information on AIRB models.

**Table 44: 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 EBA and internal Default Grade (DG) bands are based on TTC PD. Note that this relationship is dynamic, and therefore, varies over time, region and industry.

EBA PD Range %	Internal DG Band	Default Probability			Financial statements description	Moody's	Standard and Poor's
		>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	A+
	4	0.05%	0.08%	0.10%		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%	—	—		Ba2	BB
0.75 to < 2.50	12	—	0.90%	1.20%	Satisfactory	Ba2	BB
	13	1.20%	1.38%	1.55%		Ba3	BB-
	14	1.55%	1.85%	2.15%		Ba3	B+
	15	2.15%	—	—		B1	B+
	15	—	2.60%	3.05%		B1	B+
2.50 to < 10.00	16	3.05%	3.75%	4.45%	Satisfactory	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%	10.00%	—		B3, Caa1	CCC+
10.00 to < 100.00	19	—	—	11.35%	Higher risk	Caa2	CCC+
	20	11.35%	15.00%	18.65%		Caa2	CCC
	21	18.65%	30.00%	99.99%		Caa3, Ca, C	CCC-, CC+, CC, C
100.00 (Default)					D	D	

## Risk and capital position review

### 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 45), institutions (table 46), corporates (table 47), corporates subject to slotting (table 49), retail SME (table 50), secured retail (table 51), revolving retail (table 52) and other retail (table 53).

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 45: CR6 Credit risk exposures by exposure class and PD range for central governments and central banks**

#### Barclays Group

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCF %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	Average Maturity Years	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>												
0.00 to < 0.15	94,463	97	18.5%	94,391	0.0%	33	45.0%	1.6	4,172	4.4%	4	
0.15 to < 0.25	4	—	—	4	0.2%	4	48.1%	1.0	1	35.2%	0	
0.25 to < 0.50	592	—	—	592	0.4%	3	45.0%	2.4	396	66.8%	1	
0.50 to < 0.75	—	—	—	—	—	—	—	—	—	—	—	
0.75 to < 2.50	—	—	—	—	—	—	—	—	—	—	—	
2.50 to < 10.00	—	—	—	—	—	—	—	—	—	—	—	
10.00 to < 100.00	0	—	—	0	12.1%	1	63.0%	1.0	0	300.8%	0	
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	
<b>Total</b>	<b>95,059</b>	<b>97</b>	<b>18.5%</b>	<b>94,987</b>	<b>0.0%</b>	<b>41</b>	<b>45.0%</b>	<b>1.6</b>	<b>4,569</b>	<b>4.8%</b>	<b>5</b>	<b>(0)</b>
<b>As at 31 December 2020</b>												
0.00 to < 0.15	98,061	97	15.1%	97,943	0.0%	28	45.0%	1.5	4,637	4.7%	5	
0.15 to < 0.25	0	—	—	0	0.2%	2	48.2%	1.0	0	30.4%	0	
0.25 to < 0.50	638	—	—	638	0.3%	3	45.0%	3.0	439	68.9%	1	
0.50 to < 0.75	—	—	—	—	—	—	—	—	—	—	—	
0.75 to < 2.50	—	—	—	—	—	—	—	—	—	—	—	
2.50 to < 10.00	—	—	—	—	—	—	—	—	—	—	—	
10.00 to < 100.00	0	—	—	0	13.0%	1	63.0%	1.0	0	312.1%	0	
100.00 (Default)	—	—	—	—	—	—	—	—	—	—	—	
<b>Total</b>	<b>98,699</b>	<b>97</b>	<b>15.1%</b>	<b>98,581</b>	<b>0.0%</b>	<b>34</b>	<b>45.0%</b>	<b>1.5</b>	<b>5,076</b>	<b>5.1%</b>	<b>6</b>	<b>(0)</b>

The RWA density associated with AIRB exposures to central governments and central banks remained broadly stable at 4.8% (December 2020: 5.1%).

## Risk and capital position review

### Analysis of credit risk continued

**Table 46: CR6 Credit risk exposures by exposure class and PD range for institutions**
**Barclays Group**

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCF <sup>a</sup> %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	Average Maturity Years <sup>b</sup>	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>												
0.00 to < 0.15	11,669	7,431	49.6%	15,312	0.0%	484	38.5%	2.7	2,854	18.6%	3	
0.15 to < 0.25	1,141	62	70.1%	1,184	0.2%	54	15.5%	1.9	208	17.6%	0	
0.25 to < 0.50	79	161	55.6%	169	0.3%	62	56.4%	2.2	149	88.2%	0	
0.50 to < 0.75	32	62	83.3%	83	0.6%	63	34.1%	1.3	50	60.0%	0	
0.75 to < 2.50	76	83	51.6%	118	1.7%	275	40.7%	2.5	131	111.2%	1	
2.50 to < 10.00	184	188	52.5%	282	4.0%	139	48.2%	2.0	469	166.2%	5	
10.00 to < 100.00	18	63	71.1%	63	20.2%	15	19.1%	2.2	70	110.5%	2	
100.00 (Default)	8	14	0.3%	8	100.0%	12	11.3%	2.4	10	121.8%	0	
<b>Total</b>	<b>13,207</b>	<b>8,064</b>	<b>50.3%</b>	<b>17,219</b>	<b>0.3%</b>	<b>1,104</b>	<b>37.2%</b>	<b>2.6</b>	<b>3,941</b>	<b>22.9%</b>	<b>11</b>	<b>(4)</b>
<b>As at 31 December 2020</b>												
0.00 to < 0.15	14,593	7,516	51.3%	18,435	0.0%	469	35.3%	4.7	3,427	18.6%	3	
0.15 to < 0.25	474	8	71.9%	479	0.2%	48	37.5%	3.0	198	41.3%	0	
0.25 to < 0.50	317	173	59.2%	419	0.3%	58	47.1%	5.0	243	57.9%	1	
0.50 to < 0.75	63	67	81.4%	117	0.6%	43	51.6%	1.4	104	88.5%	0	
0.75 to < 2.50	59	39	86.2%	92	1.7%	312	47.2%	1.9	125	135.0%	1	
2.50 to < 10.00	116	253	53.6%	251	3.8%	140	38.0%	4.3	361	143.8%	4	
10.00 to < 100.00	41	114	57.0%	106	18.4%	25	15.7%	2.4	95	89.6%	3	
100.00 (Default)	4	75	66.7%	54	100.0%	18	10.1%	1.3	68	124.6%	0	
<b>Total</b>	<b>15,667</b>	<b>8,245</b>	<b>52.2%</b>	<b>19,953</b>	<b>0.5%</b>	<b>1,113</b>	<b>35.6%</b>	<b>4.6</b>	<b>4,621</b>	<b>23.2%</b>	<b>12</b>	<b>(10)</b>

**Notes**

- a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.  
b The current period average maturity years disclosed have been updated to reflect the 5 year maturity cap, consistent with the risk weight calculation.

The RWA density associated with AIRB exposures to institutions remained broadly stable at 22.9% (December 2020: 23.2%).

## Risk and capital position review

### Analysis of credit risk continued

**Table 47: CR6 Credit risk exposures by exposure class and PD range for corporates**
**Barclays Group**

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCF* %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	Average Maturity Years <sup>b</sup>	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>												
0.00 to < 0.15	17,591	49,055	50.0%	41,372	0.1%	2,649	37.3%	2.9	10,915	26.4%	14	
0.15 to < 0.25	3,141	5,929	47.5%	5,567	0.2%	859	39.1%	2.6	2,461	44.2%	5	
0.25 to < 0.50	4,960	6,262	55.4%	7,965	0.4%	2,976	39.1%	2.9	4,851	60.9%	12	
0.50 to < 0.75	2,653	2,463	51.9%	3,703	0.6%	4,552	37.3%	2.4	2,456	66.3%	9	
0.75 to < 2.50	6,152	6,813	43.9%	8,508	1.4%	19,248	28.9%	2.8	5,777	67.9%	37	
2.50 to < 10.00	6,894	8,238	51.4%	10,381	5.2%	11,417	31.4%	2.9	11,863	114.3%	172	
10.00 to < 100.00	1,467	3,488	52.0%	2,967	17.5%	1,693	26.6%	2.7	4,248	143.2%	143	
100.00 (Default)	1,753	1,631	54.5%	2,564	100.0%	1,007	23.6%	2.4	3,273	127.7%	266	
<b>Total</b>	<b>44,611</b>	<b>83,879</b>	<b>50.1%</b>	<b>83,027</b>	<b>4.6%</b>	<b>44,401</b>	<b>35.2%</b>	<b>2.8</b>	<b>45,844</b>	<b>55.2%</b>	<b>658</b>	<b>(1,002)</b>
<b>As at 31 December 2020</b>												
0.00 to < 0.15	19,245	54,692	50.4%	44,962	0.1%	2,776	36.0%	6.6	12,270	27.3%	14	
0.15 to < 0.25	3,367	7,510	50.7%	6,671	0.2%	1,193	40.8%	3.0	3,099	46.4%	6	
0.25 to < 0.50	3,855	7,279	55.5%	7,417	0.4%	2,424	41.0%	3.5	4,638	62.5%	11	
0.50 to < 0.75	2,351	3,283	51.7%	3,677	0.6%	2,751	35.0%	3.3	2,339	63.6%	8	
0.75 to < 2.50	6,127	6,734	49.9%	8,695	1.5%	20,817	32.1%	3.6	6,618	76.1%	43	
2.50 to < 10.00	7,867	8,706	55.1%	11,437	5.0%	12,357	32.2%	3.9	13,427	117.4%	196	
10.00 to < 100.00	2,636	3,328	51.6%	3,993	19.0%	2,736	31.4%	3.0	6,595	165.2%	257	
100.00 (Default)	2,546	644	56.5%	2,821	100.0%	1,153	29.1%	3.3	3,870	137.2%	549	
<b>Total</b>	<b>47,994</b>	<b>92,176</b>	<b>51.4%</b>	<b>89,673</b>	<b>4.9%</b>	<b>46,207</b>	<b>35.4%</b>	<b>5.0</b>	<b>52,856</b>	<b>58.9%</b>	<b>1,084</b>	<b>(1,822)</b>

**Notes**

- a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.  
b The current period average maturity years disclosed have been updated to reflect the 5 year maturity cap, consistent with the risk weight calculation.

The RWA density associated with AIRB exposures to corporates decreased 3.7% to 55.2% primarily due to a decrease in exposures within higher PD bands.

## Risk and capital position review

### Analysis of credit risk continued

**Table 48: CR6 Credit risk exposures by exposure class and PD range for corporates of which: SMEs**
**Barclays Group**

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCF <sup>a</sup> %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	Average Maturity Years <sup>b</sup>	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>												
0.00 to < 0.15	1,614	934	63.9%	2,185	0.1%	1,104	25.5%	4.0	582	26.7%	1	
0.15 to < 0.25	316	84	62.6%	349	0.2%	330	40.2%	3.6	135	38.6%	0	
0.25 to < 0.50	873	389	58.9%	1,023	0.4%	2,027	34.5%	3.1	441	43.1%	2	
0.50 to < 0.75	971	288	49.0%	997	0.6%	3,113	29.3%	2.6	403	40.5%	2	
0.75 to < 2.50	3,908	886	41.1%	3,855	1.4%	15,208	28.4%	2.9	2,112	54.8%	19	
2.50 to < 10.00	2,564	536	55.8%	2,480	4.5%	7,136	32.8%	2.7	2,161	87.1%	44	
10.00 to < 100.00	514	63	53.3%	489	19.5%	1,098	31.0%	2.6	589	120.2%	35	
100.00 (Default)	1,302	207	54.9%	1,343	100.0%	676	16.2%	2.6	1,887	140.5%	91	
<b>Total</b>	<b>12,062</b>	<b>3,387</b>	<b>53.9%</b>	<b>12,721</b>	<b>12.7%</b>	<b>30,692</b>	<b>28.5%</b>	<b>3.0</b>	<b>8,310</b>	<b>65.3%</b>	<b>194</b>	<b>(338)</b>
<b>As at 31 December 2020</b>												
0.00 to < 0.15	2,286	872	74.9%	2,810	0.1%	965	22.9%	11.1	698	24.9%	1	
0.15 to < 0.25	304	98	59.7%	354	0.2%	590	38.0%	9.9	149	42.1%	0	
0.25 to < 0.50	1,027	318	57.2%	1,097	0.4%	1,587	36.6%	5.4	497	45.3%	2	
0.50 to < 0.75	1,046	299	53.4%	1,081	0.6%	1,992	34.5%	4.7	564	52.2%	3	
0.75 to < 2.50	3,638	938	46.6%	3,634	1.5%	15,608	31.7%	4.9	2,306	63.5%	20	
2.50 to < 10.00	3,313	742	46.1%	3,244	4.7%	7,987	31.2%	4.7	2,620	80.7%	55	
10.00 to < 100.00	902	144	48.9%	868	22.1%	1,752	33.9%	4.2	1,107	127.5%	75	
100.00 (Default)	1,528	227	50.3%	1,584	100.0%	821	16.3%	4.5	2,234	141.0%	116	
<b>Total</b>	<b>14,044</b>	<b>3,638</b>	<b>55.7%</b>	<b>14,672</b>	<b>13.6%</b>	<b>31,302</b>	<b>29.1%</b>	<b>6.1</b>	<b>10,175</b>	<b>69.3%</b>	<b>272</b>	<b>(359)</b>

**Notes**

- a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.  
b The current period average maturity years disclosed have been updated to reflect the 5 year maturity cap, consistent with the risk weight calculation.

The RWA density associated with AIRB exposures to corporates of which: SME decreased 4% to 65.3% primarily due to a decrease in exposures within higher PD bands.

## Risk and capital position review

### Analysis of credit risk continued

**Table 49: CR10 Corporate exposures subject to the slotting approach**

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.

#### Barclays Group

Regulatory categories			On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA	Expected losses
			£m	£m	%	£m	£m	£m
<b>As at 31 December 2021</b>								
Category 1	Strong	Less than 2.5 years	2,272	618	50%	2,580	1,119	—
		Equal to or more than 2.5 years	1,835	311	70%	1,989	1,245	8
Category 2	Good	Less than 2.5 years	926	163	70%	1,011	633	4
		Equal to or more than 2.5 years	673	24	90%	679	534	5
Category 3	Satisfactory	Less than 2.5 years	304	192	115%	345	382	9
		Equal to or more than 2.5 years	193	37	115%	210	234	6
Category 4	Weak	Less than 2.5 years	2	0	250%	2	5	0
		Equal to or more than 2.5 years	8	0	250%	8	16	1
Category 5	Default	Less than 2.5 years	35	1	—	39	—	20
		Equal to or more than 2.5 years	59	2	—	61	—	30
<b>Total</b>		Less than 2.5 years	<b>3,539</b>	<b>974</b>	—	<b>3,977</b>	<b>2,139</b>	<b>33</b>
		Equal to or more than 2.5 years	<b>2,768</b>	<b>374</b>	—	<b>2,947</b>	<b>2,029</b>	<b>50</b>
<b>As at 31 December 2020</b>								
Category 1	Strong	Less than 2.5 years	2,449	541	50%	2,774	1,204	—
		Equal to or more than 2.5 years	2,752	666	70%	3,132	1,946	13
Category 2	Good	Less than 2.5 years	1,391	150	70%	1,495	957	6
		Equal to or more than 2.5 years	745	48	90%	774	623	6
Category 3	Satisfactory	Less than 2.5 years	79	27	115%	90	94	3
		Equal to or more than 2.5 years	203	17	115%	212	234	6
Category 4	Weak	Less than 2.5 years	189	—	250%	189	471	15
		Equal to or more than 2.5 years	11	—	250%	11	22	1
Category 5	Default	Less than 2.5 years	80	6	—	84	—	42
		Equal to or more than 2.5 years	64	2	—	65	—	32
<b>Total</b>		Less than 2.5 years	<b>4,188</b>	<b>724</b>	—	<b>4,632</b>	<b>2,726</b>	<b>66</b>
		Equal to or more than 2.5 years	<b>3,775</b>	<b>733</b>	—	<b>4,194</b>	<b>2,825</b>	<b>58</b>

RWAs decreased £1.4bn primarily due to a decrease in specialised lending activities across risk weight categories.



## Risk and capital position review

### Analysis of credit risk continued

**Table 49a: CR10 – Corporate exposures subject to the slotting approach for significant subsidiary**
**Barclays Bank PLC**

Regulatory categories			On- balance sheet amount €m	Off- balance sheet amount €m	Risk weight %	Exposure amount €m	RWA €m	Expected losses €m
<b>As at 31 December 2021</b>								
Category 1	Strong	Less than 2.5 years	2,159	597	50%	1,997	863	—
		Equal to or more than 2.5 years	1,541	267	70%	1,644	1,036	7
Category 2	Good	Less than 2.5 years	744	135	70%	709	460	3
		Equal to or more than 2.5 years	384	24	90%	390	326	3
Category 3	Satisfactory	Less than 2.5 years	288	192	115%	308	347	8
		Equal to or more than 2.5 years	164	37	115%	181	207	5
Category 4	Weak	Less than 2.5 years	—	0	250%	0	0	0
		Equal to or more than 2.5 years	1	—	250%	1	2	0
Category 5	Default	Less than 2.5 years	6	0	—	10	—	5
		Equal to or more than 2.5 years	6	2	—	7	—	4
<b>Total</b>		Less than 2.5 years	<b>3,197</b>	<b>924</b>	<b>—</b>	<b>3,024</b>	<b>1,670</b>	<b>16</b>
		Equal to or more than 2.5 years	<b>2,096</b>	<b>330</b>	<b>—</b>	<b>2,223</b>	<b>1,571</b>	<b>19</b>
<b>As at 31 December 2020</b>								
Category 1	Strong	Less than 2.5 years	2,243	492	50%	2,163	933	—
		Equal to or more than 2.5 years	2,368	623	70%	2,136	1,328	9
Category 2	Good	Less than 2.5 years	1,228	140	70%	1,279	837	5
		Equal to or more than 2.5 years	467	48	90%	388	331	3
Category 3	Satisfactory	Less than 2.5 years	57	26	115%	68	75	2
		Equal to or more than 2.5 years	160	17	115%	168	193	5
Category 4	Weak	Less than 2.5 years	186	—	250%	186	465	15
		Equal to or more than 2.5 years	—	—	250%	—	—	—
Category 5	Default	Less than 2.5 years	45	4	—	48	—	24
		Equal to or more than 2.5 years	10	2	—	11	—	5
<b>Total</b>		Less than 2.5 years	<b>3,759</b>	<b>662</b>	<b>—</b>	<b>3,744</b>	<b>2,310</b>	<b>46</b>
		Equal to or more than 2.5 years	<b>3,005</b>	<b>690</b>	<b>—</b>	<b>2,703</b>	<b>1,852</b>	<b>22</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 50: CR6 Credit risk exposures by exposure class and PD range for retail SME**
**Barclays Group**

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCFa %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>											
0.00 to < 0.15	16	2	14526.7%	286	0.1%	166,585	46.2%	25	8.8%	0	
0.15 to < 0.25	40	14	256.1%	74	0.2%	17,454	33.1%	9	11.9%	0	
0.25 to < 0.50	248	88	153.3%	366	0.4%	63,189	30.3%	63	17.2%	0	
0.50 to < 0.75	413	137	190.7%	623	0.6%	109,566	34.9%	158	25.3%	1	
0.75 to < 2.50	2,289	767	112.8%	2,846	1.5%	441,668	37.9%	1,048	36.8%	16	
2.50 to < 10.00	1,649	500	99.8%	2,015	4.7%	249,277	37.5%	942	46.7%	36	
10.00 to < 100.00	388	46	199.3%	467	23.1%	60,987	37.3%	303	65.0%	39	
100.00 (Default)	558	39	36.8%	552	100.0%	34,320	21.1%	628	113.8%	66	
<b>Total</b>	<b>5,601</b>	<b>1,593</b>	<b>136.8%</b>	<b>7,229</b>	<b>11.1%</b>	<b>1,143,046</b>	<b>36.1%</b>	<b>3,176</b>	<b>43.9%</b>	<b>158</b>	<b>(148)</b>
<b>As at 31 December 2020</b>											
0.00 to < 0.15	15	2	15008.4%	313	0.1%	184,025	47.1%	31	9.9%	0	
0.15 to < 0.25	66	17	276.3%	109	0.2%	21,824	30.4%	12	10.8%	0	
0.25 to < 0.50	419	89	55.8%	444	0.4%	22,140	22.0%	52	11.7%	0	
0.50 to < 0.75	581	97	129.4%	645	0.6%	58,789	31.6%	147	22.8%	1	
0.75 to < 2.50	2,203	564	174.4%	2,882	1.4%	504,619	39.2%	1,121	38.9%	17	
2.50 to < 10.00	1,585	809	77.1%	2,063	4.8%	303,282	35.8%	942	45.7%	36	
10.00 to < 100.00	518	148	59.5%	589	24.8%	61,165	35.5%	371	62.9%	52	
100.00 (Default)	590	43	36.8%	599	100.0%	26,800	24.0%	690	115.2%	89	
<b>Total</b>	<b>5,977</b>	<b>1,769</b>	<b>126.0%</b>	<b>7,644</b>	<b>11.7%</b>	<b>1,182,644</b>	<b>35.4%</b>	<b>3,366</b>	<b>44.0%</b>	<b>195</b>	<b>(161)</b>

**Note**

a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.

The RWA density associated with AIRB exposures to retail SMEs remained broadly stable at 43.9% (December 2020: 44.0%).

## Risk and capital position review

### Analysis of credit risk continued

**Table 51: CR6 Credit risk exposures by exposure class and PD range for secured retail**
**Barclays Group**

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCF <sup>a</sup> %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>											
0.00 to < 0.15	19,877	1,662	97.9%	21,081	0.1%	99,459	12.0%	1,510	7.2%	10	
0.15 to < 0.25	10,738	1,282	95.9%	11,528	0.2%	77,376	12.8%	881	7.6%	7	
0.25 to < 0.50	28,813	2,452	96.8%	30,276	0.4%	171,350	10.3%	2,075	6.9%	13	
0.50 to < 0.75	39,942	2,274	97.6%	41,222	0.6%	259,486	10.1%	4,010	9.7%	27	
0.75 to < 2.50	46,326	2,905	98.5%	48,509	1.2%	288,025	13.8%	10,269	21.2%	88	
2.50 to < 10.00	9,736	591	98.8%	10,206	4.4%	59,264	14.9%	4,688	45.9%	66	
10.00 to < 100.00	4,296	145	99.5%	4,420	28.4%	27,756	9.3%	2,135	48.3%	134	
100.00 (Default)	1,737	3	100.0%	1,743	100.0%	16,748	17.5%	1,157	66.4%	368	
<b>Total</b>	<b>161,465</b>	<b>11,314</b>	<b>97.8%</b>	<b>168,985</b>	<b>2.6%</b>	<b>999,464</b>	<b>12.0%</b>	<b>26,725</b>	<b>15.8%</b>	<b>713</b>	<b>(424)</b>
<b>As at 31 December 2020</b>											
0.00 to < 0.15	22,425	4,131	94.4%	25,072	0.1%	126,979	13.4%	1,811	7.2%	8	
0.15 to < 0.25	14,844	2,111	94.2%	15,973	0.2%	121,670	10.6%	1,042	6.5%	6	
0.25 to < 0.50	35,150	3,096	96.5%	36,903	0.4%	227,513	9.7%	2,511	6.8%	15	
0.50 to < 0.75	34,852	1,059	96.7%	35,876	0.6%	224,280	11.3%	3,843	10.7%	25	
0.75 to < 2.50	31,012	1,569	98.7%	32,151	1.2%	200,759	14.2%	6,958	21.6%	60	
2.50 to < 10.00	7,274	155	100.0%	7,431	4.6%	43,878	13.5%	3,206	43.1%	48	
10.00 to < 100.00	4,688	127	99.8%	4,805	30.3%	30,231	10.1%	2,483	51.7%	187	
100.00 (Default)	1,732	2	100.0%	1,738	100.0%	16,035	18.6%	1,251	72.0%	373	
<b>Total</b>	<b>151,977</b>	<b>12,250</b>	<b>96.7%</b>	<b>159,949</b>	<b>2.7%</b>	<b>991,345</b>	<b>11.9%</b>	<b>23,105</b>	<b>14.4%</b>	<b>722</b>	<b>(481)</b>

**Note**

a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.

The RWA density associated with AIRB exposures to secured retail increased 1.4% to 15.8% primarily driven by growth in mortgages within higher PD bands.

## Risk and capital position review

### Analysis of credit risk continued

**Table 52: CR6 Credit risk exposures by exposure class and PD range for revolving retail**
**Barclays Group**

	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCFa	EAD post CRM and post CCF	Average PD	Number of obligors	Average LGD	RWA	RWA Density	EL	Value Adjustment and Provisions
	£m	£m	%	£m	%		%	£m	%	£m	£m
<b>As at 31 December 2021</b>											
0.00 to < 0.15	1,114	22,987	48.0%	13,140	0.1%	13,574,052	73.9%	497	3.8%	10	
0.15 to < 0.25	753	6,305	12.8%	3,179	0.2%	2,121,186	76.9%	306	9.6%	7	
0.25 to < 0.50	1,507	6,833	11.8%	4,048	0.4%	1,897,689	78.4%	699	17.3%	19	
0.50 to < 0.75	958	2,938	8.9%	1,981	0.6%	836,643	79.6%	480	24.2%	13	
0.75 to < 2.50	3,458	5,296	5.9%	5,831	1.4%	2,076,654	81.0%	2,961	50.8%	99	
2.50 to < 10.00	2,454	1,148	5.0%	3,292	4.8%	1,005,917	82.0%	3,923	119.2%	178	
10.00 to < 100.00	538	87	22.1%	683	22.8%	257,374	80.6%	1,797	262.9%	166	
100.00 (Default)	667	212	2.7%	667	100.0%	295,870	78.6%	1,690	253.3%	433	
<b>Total</b>	<b>11,449</b>	<b>45,806</b>	<b>26.9%</b>	<b>32,821</b>	<b>3.4%</b>	<b>22,065,385</b>	<b>77.4%</b>	<b>12,353</b>	<b>37.6%</b>	<b>925</b>	<b>(1,463)</b>
<b>As at 31 December 2020</b>											
0.00 to < 0.15	698	20,496	52.0%	11,896	0.1%	12,799,375	74.8%	442	3.7%	10	
0.15 to < 0.25	529	6,894	16.4%	3,062	0.2%	2,169,395	78.5%	288	9.4%	6	
0.25 to < 0.50	1,397	9,198	9.8%	4,484	0.4%	2,148,634	79.3%	744	16.6%	22	
0.50 to < 0.75	994	4,304	6.5%	2,385	0.6%	1,005,342	79.7%	575	24.1%	16	
0.75 to < 2.50	3,913	7,449	4.1%	6,882	1.4%	2,248,233	80.2%	3,378	49.1%	132	
2.50 to < 10.00	3,805	1,726	3.4%	4,901	4.9%	1,270,338	79.5%	5,542	113.1%	257	
10.00 to < 100.00	915	99	17.6%	1,064	22.3%	287,933	78.9%	2,591	243.5%	246	
100.00 (Default)	1,017	206	2.3%	1,017	100.0%	371,827	78.5%	2,133	209.7%	694	
<b>Total</b>	<b>13,268</b>	<b>50,372</b>	<b>24.6%</b>	<b>35,691</b>	<b>4.6%</b>	<b>22,301,077</b>	<b>77.9%</b>	<b>15,693</b>	<b>44.0%</b>	<b>1,383</b>	<b>(2,467)</b>

**Note**

a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.

The RWA density associated with AIRB exposures to revolving retail decreased 6.4% to 37.6% primarily due to lower balances in higher PD bands.

## Risk and capital position review

### Analysis of credit risk continued

**Table 53: CR6 Credit risk exposures by exposure class and PD range for other retail exposures**
**Barclays Group**

	Original on-balance sheet gross exposure £m	Off-balance sheet exposures pre CCF £m	Average CCF <sup>a</sup> %	EAD post CRM and post CCF £m	Average PD %	Number of obligors	Average LGD %	RWA £m	RWA Density %	EL £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>											
0.00 to < 0.15	374	1	99.7%	375	0.1%	66,911	74.2%	73	19.6%	0	
0.15 to < 0.25	317	—	—	317	0.2%	52,575	74.4%	104	32.9%	1	
0.25 to < 0.50	652	—	—	652	0.4%	91,002	75.3%	319	48.9%	3	
0.50 to < 0.75	425	—	—	425	0.6%	57,279	75.7%	305	71.8%	4	
0.75 to < 2.50	1,111	—	—	1,111	1.4%	142,440	76.4%	1,068	96.1%	15	
2.50 to < 10.00	669	—	—	669	4.6%	85,845	77.1%	918	137.2%	33	
10.00 to < 100.00	249	—	—	249	26.4%	35,318	77.3%	648	260.4%	70	
100.00 (Default)	190	—	—	190	100.0%	27,895	77.0%	202	106.3%	136	
<b>Total</b>	<b>3,987</b>	<b>1</b>	<b>97.9%</b>	<b>3,988</b>	<b>7.7%</b>	<b>559,265</b>	<b>76.0%</b>	<b>3,637</b>	<b>91.2%</b>	<b>262</b>	<b>(236)</b>
<b>As at 31 December 2020</b>											
0.00 to < 0.15	102	1	98.7%	102	0.1%	34,138	71.2%	20	19.8%	0	
0.15 to < 0.25	242	—	—	242	0.2%	46,064	73.5%	77	31.9%	0	
0.25 to < 0.50	604	—	—	604	0.4%	93,225	74.7%	288	47.7%	2	
0.50 to < 0.75	510	—	—	510	0.6%	70,562	75.5%	334	65.4%	2	
0.75 to < 2.50	1,510	—	—	1,510	1.4%	197,887	76.3%	1,385	91.7%	16	
2.50 to < 10.00	936	—	—	936	4.6%	118,970	77.2%	1,137	121.4%	33	
10.00 to < 100.00	341	—	—	341	26.9%	44,707	77.6%	598	175.2%	72	
100.00 (Default)	317	—	—	317	100.0%	45,413	78.0%	209	66.1%	240	
<b>Total</b>	<b>4,562</b>	<b>1</b>	<b>100.0%</b>	<b>4,562</b>	<b>10.5%</b>	<b>650,966</b>	<b>76.1%</b>	<b>4,048</b>	<b>88.7%</b>	<b>365</b>	<b>(439)</b>

**Note**

a Average CCF is calculated at an aggregate level and reflects where the modelled EAD is higher than the original on and off balance sheet exposures pre CCF.

The RWA density associated with AIRB exposures to other retail remained broadly stable at 91.2% (December 2020: 88.7%).

## Risk and capital position review

### Analysis of credit risk continued

**Table 54: CR1-A – Credit quality of exposures by exposure class and instrument**

This table provides a comprehensive picture of the credit quality of on balance sheet and off balance sheet exposures

#### Barclays Group

As at 31 December 2021		Defaulted	Non-defaulted	Specific	General	Credit risk	Net values	Accumulated
		exposures	exposure	credit risk	credit risk	adjustment	charges in	write-offs
		£m	£m	£m	£m	£m	£m	£m
1	Central governments or central banks	—	95,156	—	—	—	95,156	—
2	Institutions	22	21,249	5	—	(6)	21,266	—
3	Corporates	3,481	132,664	1,020	—	(822)	135,125	282
4	Of which Specialised lending	97	7,559	18	—	(2)	7,638	—
5	Of which SMEs	1,509	13,940	338	—	(21)	15,111	18
6	Retail	3,406	237,810	2,271	—	(1,277)	238,945	614
7	Secured by real estate property	1,740	171,040	424	—	(57)	172,356	26
8	SMEs	—	—	—	—	—	—	—
9	Non-SMEs	1,740	171,040	424	—	(57)	172,356	26
10	Qualifying revolving	879	56,375	1,463	—	(1,004)	55,791	473
11	Other retail	787	10,395	384	—	(216)	10,798	115
12	SMEs	597	6,597	148	—	(12)	7,046	—
13	Non-SMEs	190	3,798	236	—	(204)	3,752	115
14	Equity	—	—	—	—	—	—	—
15	<b>Total IRB approach</b>	<b>6,909</b>	<b>486,879</b>	<b>3,296</b>	<b>—</b>	<b>(2,105)</b>	<b>490,492</b>	<b>896</b>
16	Central governments or central banks	—	251,936	1	—	—	251,935	—
17	Regional governments or local authorities	—	9,418	1	—	1	9,417	—
18	Public sector entities	11	5,885	11	—	(1)	5,885	—
19	Multilateral development banks	—	5,314	—	—	—	5,314	—
20	International organisations	—	558	—	—	—	558	—
21	Institutions	7	6,088	1	—	(10)	6,094	—
22	Corporates	1,197	66,229	682	—	(290)	66,744	110
23	Of which: SMEs	—	4,173	21	—	(31)	4,152	—
24	Retail	2,461	108,547	2,524	—	(755)	108,484	862
25	Of which: SMEs	—	10,068	39	—	(45)	10,029	—
26	Secured by mortgages on immovable property	570	9,532	—	—	—	10,102	3
27	Of which: SMEs	—	89	—	—	—	89	—
28	Exposures in default	4,246	—	1,401	—	(553)	2,845	29
29	Items associated with particularly high risk	—	1,960	—	—	—	1,960	—
30	Covered bonds	—	1,110	—	—	(1)	1,110	—
31	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—
32	Collective investments undertakings	—	—	—	—	—	—	—
33	Equity exposures	—	851	—	—	—	851	—
34	Other exposures	—	4,220	4	—	4	4,216	—
35	<b>Total standardised approach</b>	<b>4,246</b>	<b>471,648</b>	<b>3,224</b>	<b>—</b>	<b>(1,052)</b>	<b>472,670</b>	<b>975</b>
36	<b>Total</b>	<b>11,155</b>	<b>958,527</b>	<b>6,520</b>	<b>—</b>	<b>(3,157)</b>	<b>963,162</b>	<b>1,871</b>
37	Of which: Loans	8,671	569,904	5,975	—	(2,653)	572,600	1,871
38	Of which: Debt securities	47	86,833	2	—	1	86,878	—
39	Of which: Off-balance sheet exposures	2,437	301,790	543	—	(505)	303,684	—

## Risk and capital position review

### Analysis of credit risk continued

**Table 54: CR1-A – Credit quality of exposures by exposure class and instrument – continued**
**Barclays Group**

		Defaulted exposures	Non-defaulted exposure	Specific credit risk adjustment	General credit risk adjustment	Credit risk adjustment charges in the period <sup>a</sup>	Net values	Accumulated write-offs
		£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2020</b>								
1	Central governments or central banks	—	98,795	—	—	—	98,795	—
2	Institutions	79	23,833	10	—	4	23,902	—
3	Corporates	3,343	146,247	1,843	—	1,044	147,747	113
4	Of which Specialised lending	152	9,267	20	—	—	9,399	—
5	Of which SMEs	1,755	15,926	359	—	94	17,322	1
6	Retail	3,911	236,264	3,548	—	745	236,627	568
7	Secured by real estate property	1,734	162,493	481	—	110	163,746	20
8	SMEs	—	—	—	—	—	—	—
9	Non-SMEs	1,734	162,493	481	—	110	163,746	20
10	Qualifying revolving	1,227	62,413	2,467	—	479	61,173	419
11	Other retail	950	11,358	600	—	156	11,708	129
12	SMEs	633	7,113	161	—	68	7,585	—
13	Non-SMEs	317	4,245	439	—	88	4,123	129
14	Equity	—	—	—	—	—	—	—
15	<b>Total IRB approach</b>	<b>7,333</b>	<b>505,139</b>	<b>5,401</b>	<b>—</b>	<b>1,793</b>	<b>507,071</b>	<b>681</b>
16	Central governments or central banks	—	214,303	1	—	—	214,302	—
17	Regional governments or local authorities	—	10,960	—	—	—	10,960	—
18	Public sector entities	1	8,682	12	—	3	8,671	—
19	Multilateral development banks	—	7,209	—	—	—	7,209	—
20	International organisations	—	734	—	—	—	734	—
21	Institutions	2	6,093	11	—	2	6,084	—
22	Corporates	1,223	59,280	972	—	601	59,531	225
23	Of which: SMEs	—	5,159	51	—	23	5,108	—
24	Retail	2,020	103,754	3,278	—	549	102,495	1,058
25	Of which: SMEs	—	12,198	84	—	48	12,114	—
26	Secured by mortgages on immovable property	569	9,407	1	—	(3)	9,975	4
27	Of which: SMEs	—	188	—	—	—	188	—
28	Exposures in default	3,815	—	1,954	—	250	1,861	31
29	Items associated with particularly high risk	—	1,444	—	—	—	1,444	—
30	Covered bonds	—	1,887	1	—	1	1,886	—
31	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—
32	Collective investments undertakings	—	—	—	—	—	—	—
33	Equity exposures	—	723	—	—	—	723	—
34	Other exposures	—	4,824	—	—	—	4,824	—
35	<b>Total standardised approach</b>	<b>3,815</b>	<b>429,300</b>	<b>4,276</b>	<b>—</b>	<b>1,153</b>	<b>428,839</b>	<b>1,287</b>
36	<b>Total</b>	<b>11,148</b>	<b>934,439</b>	<b>9,677</b>	<b>—</b>	<b>2,946</b>	<b>935,910</b>	<b>1,968</b>
37	Of which: Loans	9,845	517,262	8,628	—	2,335	518,479	1,968
38	Of which: Debt securities	18	99,740	1	—	(3)	99,757	—
39	Of which: Off-balance sheet exposures	1,285	317,437	1,048	—	613	317,674	—

**Note**

a Credit risk adjustment charges in the period represent the movements in impairment stock between the reporting periods.

Non-defaulted exposures increased £24.1bn to £958.5bn primarily due to an increase in the Group liquidity pool, growth in mortgage partially offset by reduction in corporate lending activities.

Specific credit risk adjustments decreased £3.2bn to £6.5bn primarily driven by macroeconomic outlook used in the Q2'21 scenario refresh, lowered unsecured lending balances and a benign credit environment.

## Risk and capital position review

### Analysis of credit risk continued

**Table 54a: CR1-A – Credit quality of exposures by exposure class and instrument for significant subsidiary**
**Barclays Bank PLC**

		Defaulted exposures	Non-defaulted exposure	Specific credit risk adjustment	General credit risk adjustment	Credit risk adjustment charges in the period <sup>a</sup>	Net values	Accumulated write-offs
		£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2021</b>								
1	Central governments or central banks	—	94,689	—	—	—	94,689	—
2	Institutions	19	17,709	4	—	(6)	17,724	—
3	Corporates	2,361	111,754	749	—	(847)	113,366	258
4	Of which Specialised lending	14	6,531	18	—	—	6,527	—
5	Of which SMEs	698	7,508	102	—	(78)	8,104	18
6	Retail	425	91	275	—	(27)	241	18
7	Secured by real estate property	425	91	275	—	(27)	241	18
8	SMEs	—	—	—	—	—	—	—
9	Non-SMEs	425	91	275	—	(27)	241	18
10	Qualifying revolving	—	—	—	—	—	—	—
11	Other retail	—	—	—	—	—	—	—
12	SMEs	—	—	—	—	—	—	—
13	Non-SMEs	—	—	—	—	—	—	—
14	Equity	—	—	—	—	—	—	—
15	<b>Total IRB approach</b>	<b>2,805</b>	<b>224,243</b>	<b>1,028</b>	<b>—</b>	<b>(880)</b>	<b>226,020</b>	<b>276</b>
16	Central governments or central banks	—	116,432	1	—	1	116,431	—
17	Regional governments or local authorities	—	744	—	—	—	744	—
18	Public sector entities	5	2,579	4	—	2	2,580	—
19	Multilateral development banks	—	3,772	—	—	—	3,772	—
20	International organisations	—	477	—	—	—	477	—
21	Institutions	7	73,980	1	—	(6)	73,986	—
22	Corporates	1,061	158,042	594	—	(218)	158,509	87
23	Of which: SMEs	—	3,479	17	—	(26)	3,462	—
24	Retail	43	2,670	88	—	(57)	2,625	17
25	Of which: SMEs	—	2,054	39	—	(17)	2,015	—
26	Secured by mortgages on immovable property	341	6,213	—	—	—	6,554	3
27	Of which: SMEs	—	40	—	—	—	40	—
28	Exposures in default	1,457	—	396	—	(163)	1,061	—
29	Items associated with particularly high risk	—	260	—	—	—	260	—
30	Covered bonds	—	—	—	—	—	—	—
31	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—
32	Collective investments undertakings	—	—	—	—	—	—	—
33	Equity exposures	—	2,663	—	—	—	2,663	—
34	Other exposures	—	1,512	—	—	—	1,512	—
35	<b>Total standardised approach</b>	<b>1,457</b>	<b>369,344</b>	<b>688</b>	<b>—</b>	<b>(278)</b>	<b>370,113</b>	<b>107</b>
36	<b>Total</b>	<b>4,262</b>	<b>593,587</b>	<b>1,716</b>	<b>—</b>	<b>(1,158)</b>	<b>596,133</b>	<b>383</b>
37	Of which: Loans	2,292	348,937	1,288	—	(943)	349,941	383
38	Of which: Debt securities	41	61,623	2	—	(1)	61,662	—
39	Of which: Off-balance sheet exposures	1,929	183,027	426	—	(214)	184,530	—



## Risk and capital position review

### Analysis of credit risk continued

**Table 54a: CR1-A – Credit quality of exposures by exposure class and instrument for significant subsidiary – continued**  
Barclays Bank PLC

		Defaulted exposures	Non-defaulted exposure	Specific credit risk adjustment	General credit risk adjustment	Credit risk adjustment charges in the period <sup>a</sup>	Net values	Accumulated write-offs
		£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2020</b>								
1	Central governments or central banks	—	98,691	—	—	—	98,691	—
2	Institutions	75	21,183	10	—	4	21,248	—
3	Corporates	2,330	121,234	1,597	—	958	121,967	56
4	Of which Specialised lending	60	8,056	17	—	—	8,099	—
5	Of which SMEs	889	8,775	180	—	52	9,484	—
6	Retail	485	129	302	—	57	311	12
7	Secured by real estate property	485	128	302	—	57	311	12
8	SMEs	—	—	—	—	—	—	—
9	Non-SMEs	485	128	302	—	57	311	12
10	Qualifying revolving	—	—	—	—	—	—	—
11	Other retail	—	—	—	—	—	—	—
12	SMEs	—	—	—	—	—	—	—
13	Non-SMEs	—	—	—	—	—	—	—
14	Equity	—	—	—	—	—	—	—
15	<b>Total IRB approach</b>	2,890	241,236	1,909	—	1,019	242,217	68
16	Central governments or central banks	—	102,758	—	—	—	102,758	—
17	Regional governments or local authorities	—	687	—	—	—	687	—
18	Public sector entities	—	4,559	2	—	—	4,557	—
19	Multilateral development banks	—	4,856	—	—	—	4,856	—
20	International organisations	—	603	—	—	—	603	—
21	Institutions	1	66,145	7	—	2	66,139	—
22	Corporates	944	141,525	811	—	492	141,658	27
23	Of which: SMEs	—	4,228	43	—	16	4,185	—
24	Retail	85	3,788	145	—	19	3,728	34
25	Of which: SMEs	—	2,824	56	—	20	2,768	—
26	Secured by mortgages on immovable property	401	5,888	—	—	(3)	6,289	1
27	Of which: SMEs	—	125	—	—	—	125	—
28	Exposures in default	1,431	—	559	—	350	872	—
29	Items associated with particularly high risk	—	136	—	—	—	136	—
30	Covered bonds	—	59	—	—	—	59	—
31	Claims on institutions and corporates with a short-term credit assessment	—	—	—	—	—	—	—
32	Collective investments undertakings	—	—	—	—	—	—	—
33	Equity exposures	—	3,012	—	—	—	3,012	—
34	Other exposures	—	1,523	—	—	—	1,523	—
35	<b>Total standardised approach</b>	1,431	335,539	965	—	510	336,005	62
36	<b>Total</b>	4,321	576,775	2,874	—	1,529	578,222	130
37	Of which: Loans	3,436	334,396	2,233	—	1,085	335,599	130
38	Of which: Debt securities	18	65,241	1	—	(4)	65,258	—
39	Of which: Off-balance sheet exposures	867	177,138	640	—	448	177,365	—

#### Note

a Credit risk adjustment charges in the period represent the movements in impairment stock between the reporting periods.

## Risk and capital position review

### Analysis of credit risk continued

**Table 55: CR1-B – Credit quality of exposures by industry or counterparty types**

This table provides a comprehensive picture of the credit quality of on balance sheet and off balance sheet exposures by industry types.

#### Barclays Group

	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Credit risk adjustment charges in the period*	Net values		Accumulated write-offs
						£m	£m	
<b>As at 31 December 2021</b>								
1	601	4,404	12	—	(112)	4,993	—	
2	258	8,985	48	—	(161)	9,195	81	
3	366	31,786	151	—	(103)	32,001	16	
4	456	12,728	16	—	(3)	13,168	18	
5	22	2,977	8	—	(8)	2,991	—	
6	291	6,585	74	—	(51)	6,802	—	
7	484	17,834	136	—	(261)	18,182	—	
8	230	7,853	111	—	(57)	7,972	22	
9	480	4,421	86	—	(19)	4,815	—	
10	483	12,001	91	—	(99)	12,393	—	
11	679	29,660	145	—	(38)	30,194	28	
12	235	6,262	67	—	(11)	6,430	—	
13	762	11,196	188	—	(14)	11,770	8	
14								
15	—	73,299	2	—	1	73,297	—	
16	114	5,548	23	—	(23)	5,639	—	
17	387	7,776	166	—	72	7,997	58	
18	111	2,060	31	—	(46)	2,140	5	
19	5,196	713,152	5,165	—	(2,224)	713,183	1,635	
19	<b>11,155</b>	<b>958,527</b>	<b>6,520</b>	<b>—</b>	<b>(3,157)</b>	<b>963,162</b>	<b>1,871</b>	
<b>As at 31 December 2020</b>								
1	640	4,537	124	—	25	5,053	—	
2	518	10,072	209	—	107	10,381	82	
3	317	36,327	254	—	163	36,390	13	
4	92	12,573	18	—	(16)	12,647	1	
5	57	3,079	16	—	9	3,120	—	
6	194	7,446	125	—	84	7,515	—	
7	756	17,883	397	—	237	18,242	3	
8	142	8,532	168	—	100	8,506	10	
9	413	5,250	106	—	80	5,557	30	
10	157	13,553	190	—	133	13,520	92	
11	707	32,123	183	—	60	32,647	—	
12	172	8,673	78	—	22	8,767	12	
13	369	12,851	201	—	(7)	13,019	14	
14								
15	—	82,691	1	—	—	82,690	—	
16	85	5,721	46	—	26	5,760	—	
17	290	8,009	94	—	64	8,204	2	
18	93	2,102	77	—	63	2,118	10	
19	6,146	663,018	7,390	—	1,796	661,774	1,699	
19	<b>11,148</b>	<b>934,439</b>	<b>9,677</b>	<b>—</b>	<b>2,946</b>	<b>935,910</b>	<b>1,968</b>	

#### Note

a Credit risk adjustment charges in the period represent the movements in impairment stock between the reporting periods.

Non-defaulted exposures increased £24.1bn to £958.5bn primarily driven by "Other Services" due to an increase in the Group liquidity pool and growth in mortgages partially offset by lower unsecured lending balances.

Specific credit risk adjustments decreased £3.2bn to £6.5bn primarily driven by an improved macroeconomic outlook used in the Q2 '21 scenario refresh, lower unsecured lending balance and a benign credit environment.

## Risk and capital position review

### Analysis of credit risk continued

**Table 55a: CR1-B – Credit quality of exposures by industry or counterparty types for significant subsidiary**
**Barclays Bank PLC**

	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Credit risk adjustment charges in the period <sup>a</sup>	Net values	Accumulated write-offs	
	£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2021</b>								
1	Agriculture, forestry and fishing	12	128	1	—	(3)	139	—
2	Mining and quarrying	220	7,221	48	—	(141)	7,393	81
3	Manufacturing	169	27,318	108	—	(111)	27,379	16
4	Electricity, gas, steam and air conditioning supply	448	11,168	15	—	(3)	11,601	18
5	Water supply	14	2,866	6	—	(8)	2,874	—
6	Construction	43	3,991	26	—	(82)	4,008	—
7	Wholesale and retail trade	121	14,103	57	—	(313)	14,167	—
8	Transport and storage	108	6,449	75	—	(77)	6,482	22
9	Accommodation and food service activities	197	2,955	30	—	(60)	3,122	—
10	Information and communication	419	10,816	70	—	(100)	11,165	—
11	Real estate activities	286	19,930	111	—	12	20,105	28
12	Professional, scientific and technical activities	91	4,423	25	—	(35)	4,489	—
13	Administrative and support service activities	604	10,884	127	—	(24)	11,361	8
14	Public administration and defence, compulsory social security	—	49,673	1	—	—	49,672	—
15	Education	60	4,869	11	—	(19)	4,918	—
16	Human health services and social work activities	279	6,460	151	—	68	6,588	58
17	Arts, entertainment and recreation	32	1,596	19	—	(49)	1,609	5
18	Other services	1,159	408,737	835	—	(213)	409,061	147
19	<b>Total</b>	<b>4,262</b>	<b>593,587</b>	<b>1,716</b>	<b>—</b>	<b>(1,158)</b>	<b>596,133</b>	<b>383</b>
<b>As at 31 December 2020</b>								
1	Agriculture, forestry and fishing	15	155	4	—	1	166	—
2	Mining and quarrying	415	7,861	189	—	96	8,087	48
3	Manufacturing	226	31,303	219	—	142	31,310	7
4	Electricity, gas, steam and air conditioning supply	86	10,456	17	—	(15)	10,525	—
5	Water supply	46	2,706	14	—	8	2,738	—
6	Construction	131	4,310	108	—	81	4,333	—
7	Wholesale and retail trade	575	13,404	370	—	235	13,608	3
8	Transport and storage	104	6,930	154	—	92	6,880	10
9	Accommodation and food service activities	248	3,419	90	—	74	3,577	—
10	Information and communication	128	10,981	170	—	119	10,939	2
11	Real estate activities	337	18,572	99	—	36	18,810	—
12	Professional, scientific and technical activities	103	6,652	61	—	17	6,694	—
13	Administrative and support service activities	218	11,994	150	—	(45)	12,062	—
14	Public administration and defence, compulsory social security	—	50,223	1	—	—	50,222	—
15	Education	28	4,945	29	—	23	4,944	—
16	Human health services and social work activities	200	6,682	83	—	60	6,799	—
17	Arts, entertainment and recreation	40	1,604	68	—	58	1,576	10
18	Other services	1,421	384,579	1,048	—	547	384,952	50
19	<b>Total</b>	<b>4,321</b>	<b>576,775</b>	<b>2,874</b>	<b>—</b>	<b>1,529</b>	<b>578,222</b>	<b>130</b>

**Note**

a Credit risk adjustment charges in the period represent the movements in impairment stock between the reporting periods.

## Risk and capital position review

### Analysis of credit risk continued

**Table 56: CR1-C – Credit quality of exposures by geography**

This table provides a comprehensive picture of the credit quality of on balance sheet and off balance sheet exposures by geography.

#### Barclays Group

	Defaulted exposures £m	Non-defaulted exposures £m	Specific credit risk adjustment £m	General credit risk adjustment £m	Credit risk adjustment charges in the period <sup>a</sup> £m	Net values £m	Accumulated write-offs £m
<b>As at 31 December 2021</b>							
<b>UK</b>	<b>6,594</b>	<b>525,223</b>	<b>2,925</b>	<b>—</b>	<b>(1,918)</b>	<b>528,892</b>	<b>862</b>
<b>Europe</b>	<b>1,512</b>	<b>144,673</b>	<b>915</b>	<b>—</b>	<b>(302)</b>	<b>145,270</b>	<b>57</b>
France	107	37,840	33	—	(24)	37,914	—
Germany	252	34,545	235	—	(113)	34,562	30
Italy	698	8,699	396	—	(47)	9,001	22
Switzerland	46	33,072	16	—	(5)	33,102	—
<b>Asia</b>	<b>63</b>	<b>30,846</b>	<b>24</b>	<b>—</b>	<b>(14)</b>	<b>30,885</b>	<b>16</b>
Japan	—	14,321	—	—	—	14,321	—
<b>Americas</b>	<b>2,665</b>	<b>250,508</b>	<b>2,407</b>	<b>—</b>	<b>(847)</b>	<b>250,766</b>	<b>867</b>
United States	2,276	231,432	2,304	—	(805)	231,404	816
<b>Africa and Middle East</b>	<b>321</b>	<b>7,277</b>	<b>249</b>	<b>—</b>	<b>(76)</b>	<b>7,349</b>	<b>69</b>
<b>Total</b>	<b>11,155</b>	<b>958,527</b>	<b>6,520</b>	<b>—</b>	<b>(3,157)</b>	<b>963,162</b>	<b>1,871</b>
<b>As at 31 December 2020</b>							
<b>UK</b>	6,714	495,354	4,844	—	1,373	497,224	717
<b>Europe</b>	1,889	152,672	1,217	—	360	153,344	207
France	147	35,410	57	—	20	35,500	22
Germany	387	35,035	348	—	98	35,074	148
Italy	732	10,200	443	—	91	10,489	16
Switzerland	44	32,675	21	—	10	32,698	—
<b>Asia</b>	<b>53</b>	<b>44,023</b>	<b>38</b>	<b>—</b>	<b>(11)</b>	<b>44,038</b>	<b>—</b>
Japan	—	28,726	—	—	—	28,725	—
<b>Americas</b>	<b>2,085</b>	<b>235,572</b>	<b>3,254</b>	<b>—</b>	<b>952</b>	<b>234,403</b>	<b>1,041</b>
United States	1,732	218,113	3,109	—	869	216,736	1,041
<b>Africa and Middle East</b>	<b>407</b>	<b>6,818</b>	<b>324</b>	<b>—</b>	<b>272</b>	<b>6,901</b>	<b>3</b>
<b>Total</b>	<b>11,148</b>	<b>934,439</b>	<b>9,677</b>	<b>—</b>	<b>2,946</b>	<b>935,910</b>	<b>1,968</b>

#### Note

a Credit risk adjustment charges in the period represent the movements in impairment stock between the reporting periods.

Non-defaulted exposures increased £24.1bn to £958.5bn primarily from UK due to cash placements with central banks held as part of the Group's liquidity pool and growth in mortgages, partially offset by lowered unsecured lending balances.

Specific credit risk adjustments decreased £3.2bn to £6.5bn primarily driven by an improved macroeconomic outlook used in the Q2'21 scenario refresh, lower unsecured lending balances and a benign credit environment (notably in the UK and Americas).

## Risk and capital position review

### Analysis of credit risk continued

**Table 56a: CR1-C – Credit quality of exposures by geography for significant subsidiary**

**Barclays Bank PLC**

	Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Credit risk adjustment charges in the period <sup>a</sup>	Net values	Accumulated write-offs
	£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2021</b>							
<b>UK</b>	<b>1,474</b>	<b>266,573</b>	<b>619</b>	<b>—</b>	<b>(601)</b>	<b>267,428</b>	<b>177</b>
<b>Europe</b>	<b>743</b>	<b>103,134</b>	<b>398</b>	<b>—</b>	<b>(151)</b>	<b>103,479</b>	<b>23</b>
France	70	33,752	16	—	(12)	33,806	—
Germany	8	5,494	2	—	(10)	5,500	23
Italy	423	2,386	273	—	(27)	2,536	18
Switzerland	19	33,040	12	—	(7)	33,047	—
<b>Asia</b>	<b>60</b>	<b>24,505</b>	<b>24</b>	<b>—</b>	<b>(13)</b>	<b>24,541</b>	<b>16</b>
Japan	—	9,004	—	—	—	9,004	—
<b>Americas</b>	<b>1,686</b>	<b>194,467</b>	<b>430</b>	<b>—</b>	<b>(316)</b>	<b>195,723</b>	<b>98</b>
United States	1,396	150,199	338	—	(269)	151,257	47
<b>Africa and Middle East</b>	<b>299</b>	<b>4,908</b>	<b>245</b>	<b>—</b>	<b>(77)</b>	<b>4,962</b>	<b>69</b>
<b>Total</b>	<b>4,262</b>	<b>593,587</b>	<b>1,716</b>	<b>—</b>	<b>(1,158)</b>	<b>596,133</b>	<b>383</b>
<b>As at 31 December 2020</b>							
<b>UK</b>	1,966	240,610	1,220	—	583	241,356	43
<b>Europe</b>	1,121	106,864	549	—	150	107,436	12
France	73	29,102	28	—	2	29,147	—
Germany	120	6,766	12	—	6	6,874	—
Italy	482	2,863	301	—	54	3,044	12
Switzerland	35	32,974	19	—	9	32,990	—
<b>Asia</b>	52	35,344	37	—	(11)	35,359	—
Japan	—	20,314	—	—	—	20,314	—
<b>Americas</b>	788	188,717	745	—	536	188,760	72
United States	495	142,679	607	—	458	142,567	72
<b>Africa and Middle East</b>	394	5,240	323	—	271	5,311	3
<b>Total</b>	4,321	576,775	2,874	—	1,529	578,222	130

**Note**

a Credit risk adjustment charges in the period represent the movements in impairment stock between the reporting periods.

## Risk and capital position review

### Analysis of credit risk continued

**Table 57: Credit quality of forborne exposures**

This table provides an overview of the quality of forborne exposures.

#### Barclays Group

		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	
		Performing forborne	Non-performing forborne		On performing forborne exposures	On non-performing forborne exposures	Of which collateral and financial guarantees received on non-performing exposures with forbearance measures		
		£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2021<sup>a</sup></b>									
1	Loans and Advances	1,901	2,136	2,002	1,999	(204)	(696)	1,495	655
2	Central banks	—	—	—	—	—	—	—	—
3	General governments	—	—	—	—	—	—	—	—
4	Credit institutions	—	—	—	—	—	—	—	—
5	Other financial corporations	4	18	18	18	—	(9)	1	—
6	Non-financial corporations	1,396	914	891	873	(52)	(320)	854	170
7	Households	501	1,204	1,093	1,108	(152)	(367)	640	485
8	Debt securities	—	—	—	—	—	—	—	—
9	Loan commitments given	1,148	198	176	175	(7)	—	23	10
10	<b>Total</b>	<b>3,049</b>	<b>2,334</b>	<b>2,178</b>	<b>2,174</b>	<b>(211)</b>	<b>(696)</b>	<b>1,518</b>	<b>665</b>
<b>As at 31 December 2020</b>									
1	Loans and Advances	1,970	2,454	2,454	2,352	(313)	(814)	1,711	939
2	Central banks	—	—	—	—	—	—	—	—
3	General governments	—	—	—	—	—	—	—	—
4	Credit institutions	—	—	—	—	—	—	—	—
5	Other financial corporations	13	77	77	76	—	(67)	1	1
6	Non-financial corporations	1,414	1,465	1,465	1,422	(99)	(525)	1,098	401
7	Households	543	912	912	854	(214)	(222)	612	537
8	Debt securities	—	—	—	—	—	—	—	—
9	Loan commitments given	909	131	131	128	(12)	(1)	32	6
10	<b>Total</b>	<b>2,879</b>	<b>2,585</b>	<b>2,585</b>	<b>2,480</b>	<b>(325)</b>	<b>(815)</b>	<b>1,743</b>	<b>945</b>

#### Note

a Barclays UK forbearance balances have increased, following a standardisation of the definition of forbearance in line with EBA guidelines offset by decrease in Barclays International. For further details see page 259 in the Barclays PLC Annual Report 2021.

## Risk and capital position review

### Analysis of credit risk continued

**Table 57a: Credit quality of forborne exposures for significant subsidiary**
**Barclays Bank PLC**

		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		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					
		£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2021</b>											
1	Loans and Advances	1,038	836	835	828	(27)	(293)	813	299		
2	Central banks	—	—	—	—	—	—	—	—		
3	General governments	—	—	—	—	—	—	—	—		
4	Credit institutions	—	—	—	—	—	—	—	—		
5	Other financial corporations	3	18	18	18	—	(9)	—	—		
6	Non-financial corporations	1,015	564	563	556	(27)	(267)	562	65		
7	Households	20	254	254	254	—	(17)	251	234		
8	Debt securities	—	—	—	—	—	—	—	—		
9	Loan commitments given	993	128	127	127	(7)	—	19	10		
10	<b>Total</b>	<b>2,031</b>	<b>964</b>	<b>962</b>	<b>955</b>	<b>(34)</b>	<b>(293)</b>	<b>832</b>	<b>309</b>		
<b>As at 31 December 2020</b>											
1	Loans and Advances	1,393	1,305	1,305	1,212	(91)	(551)	1,109	380		
2	Central banks	—	—	—	—	—	—	—	—		
3	General governments	—	—	—	—	—	—	—	—		
4	Credit institutions	—	—	—	—	—	—	—	—		
5	Other financial corporations	13	77	77	76	—	(67)	1	1		
6	Non-financial corporations	1,313	925	925	886	(90)	(455)	781	117		
7	Households	67	303	303	250	(1)	(29)	327	262		
8	Debt securities	—	—	—	—	—	—	—	—		
9	Loan commitments given	810	102	102	100	(12)	(1)	26	1		
10	<b>Total</b>	<b>2,203</b>	<b>1,407</b>	<b>1,407</b>	<b>1,312</b>	<b>(103)</b>	<b>(552)</b>	<b>1,135</b>	<b>381</b>		

## Risk and capital position review

### Analysis of credit risk continued

**Table 58: Credit quality of performing and non-performing exposures by past due days**

This table follows the regulatory defined measures rather than the IFRS definition and they cannot be reconciled to the tables disclosed in the Barclays PLC Annual Report 2021. For example, loans and advances in the tables below include cash balances at central banks, cash collateral and settlement balances and reverse repos that are not part of the "loans and advances at amortised cost" disclosed in the Barclays PLC Annual Report 2021.

		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 2021		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
1	Loans and advances	836,706	835,466	1,240	7,568	2,483	1,469	1,695	620	660	198	443	7,543
2	Central banks	266,931	266,931	—	—	—	—	—	—	—	—	—	—
3	General governments	9,967	9,967	—	—	—	—	—	—	—	—	—	—
4	Credit institutions	49,517	49,517	—	—	—	—	—	—	—	—	—	—
5	Other financial corporations	208,608	208,458	150	71	22	1	11	23	3	11	—	71
6	Non-financial corporations	87,513	87,246	267	2,771	1,126	833	285	203	229	55	40	2,771
7	Of which SMEs	20,446	20,434	12	1,872	550	773	205	148	119	45	32	1,873
8	Households	214,170	213,347	823	4,726	1,335	635	1,399	394	428	132	403	4,701
9	Debt securities	95,336	95,336	—	1	—	1	—	—	—	—	—	1
10	Central banks	1,336	1,336	—	—	—	—	—	—	—	—	—	—
11	General governments	60,459	60,459	—	—	—	—	—	—	—	—	—	—
12	Credit institutions	15,149	15,149	—	—	—	—	—	—	—	—	—	—
13	Other financial corporations	12,771	12,771	—	—	—	—	—	—	—	—	—	—
14	Non-financial corporations	5,621	5,621	—	1	—	1	—	—	—	—	—	1
15	Off-balance-sheet exposures	371,683			1,298								1,298
16	Central banks	595			—								—
17	General governments	2,450			—								—
18	Credit institutions	2,401			—								—
19	Other financial corporations	64,515			98								98
20	Non-financial corporations	166,752			1,002								1,002
21	Households	134,970			198								198
22	<b>Total</b>	<b>1,303,725</b>	<b>930,802</b>	<b>1,240</b>	<b>8,867</b>	<b>2,483</b>	<b>1,470</b>	<b>1,695</b>	<b>620</b>	<b>660</b>	<b>198</b>	<b>443</b>	<b>8,842</b>



## Risk and capital position review

### Analysis of credit risk continued

**Table 58: Credit quality of performing and non-performing exposures by past due days – continued**
**Barclays Group**

	Gross carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
	€m	Not past due or past due ≤ 30 days €m	Past due > 30 days ≤ 90 days €m	€m	Unlikely to pay that are not past due or are past due ≤ 90 days €m	Past due > 90 days ≤ 180 days €m	Past due > 180 days ≤ 1 year €m	Past due > 1 year ≤ 2 years €m	Past due > 2 year ≤ 5 years €m	Past due > 5 year ≤ 7 years €m	Past due > 7 years €m	Of which defaulted €m
<b>As at 31 December 2020</b>												
1 Loans and advances	781,782	779,973	1,809	9,340	3,018	1,639	2,710	610	767	159	437	9,311
2 Central banks	209,819	209,819	–	–	–	–	–	–	–	–	–	–
3 General governments	11,763	11,763	–	–	–	–	–	–	–	–	–	–
4 Credit institutions	48,123	48,123	–	3	3	–	–	–	–	–	–	3
5 Other financial corporations	217,470	217,391	79	201	19	7	98	63	12	1	1	201
6 Non-financial corporations	90,691	89,987	704	3,469	1,535	819	491	243	313	35	33	3,468
7 Of which SMEs	21,942	21,930	12	1,403	421	286	261	149	234	28	24	1,403
8 Households	203,916	202,890	1,026	5,667	1,461	813	2,121	304	442	123	403	5,639
9 Debt securities	103,440	103,440	–	–	–	–	–	–	–	–	–	–
10 Central banks	688	688	–	–	–	–	–	–	–	–	–	–
11 General governments	68,516	68,516	–	–	–	–	–	–	–	–	–	–
12 Credit institutions	19,551	19,551	–	–	–	–	–	–	–	–	–	–
13 Other financial corporations	9,965	9,965	–	–	–	–	–	–	–	–	–	–
14 Non-financial corporations	4,720	4,720	–	–	–	–	–	–	–	–	–	–
15 Off-balance-sheet exposures	358,465			2,330								2,323
16 Central banks	656			–								–
17 General governments	2,420			–								–
18 Credit institutions	3,025			23								23
19 Other financial corporations	63,448			167								167
20 Non-financial corporations	154,877			1,935								1,928
21 Households	134,039			205								205
22 <b>Total</b>	<b>1,243,687</b>	<b>883,413</b>	<b>1,809</b>	<b>11,670</b>	<b>3,018</b>	<b>1,639</b>	<b>2,710</b>	<b>610</b>	<b>767</b>	<b>159</b>	<b>437</b>	<b>11,634</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 58a: Credit quality of performing and non-performing exposures by past due days for significant subsidiary**  
Barclays Bank PLC

	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 2021	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m
1 Loans and advances	641,460	641,208	252	1,754	523	225	209	197	247	77	276	1,754
2 Central banks	167,473	167,473	—	—	—	—	—	—	—	—	—	—
3 General governments	1,503	1,503	—	—	—	—	—	—	—	—	—	—
4 Credit institutions	54,903	54,903	—	—	—	—	—	—	—	—	—	—
5 Other financial corporations	350,640	350,636	4	42	17	—	3	22	—	—	—	43
6 Non-financial corporations	54,866	54,708	158	766	461	64	78	47	110	—	6	767
7 Of which SMEs	710	705	5	6	1	4	1	—	—	—	—	7
8 Households	12,075	11,985	90	946	45	161	128	128	137	77	270	944
9 Debt securities	65,634	65,634	—	1	—	1	—	—	—	—	—	1
10 Central banks	1,243	1,243	—	—	—	—	—	—	—	—	—	—
11 General governments	43,635	43,635	—	—	—	—	—	—	—	—	—	—
12 Credit institutions	9,888	9,888	—	—	—	—	—	—	—	—	—	—
13 Other financial corporations	8,896	8,896	—	—	—	—	—	—	—	—	—	—
14 Non-financial corporations	1,972	1,972	—	1	—	1	—	—	—	—	—	1
15 Off-balance-sheet exposures	249,797			880								880
16 Central banks	5			—								—
17 General governments	2,448			—								—
18 Credit institutions	10,499			—								—
19 Other financial corporations	89,559			98								98
20 Non-financial corporations	145,589			782								782
21 Households	1,697			—								—
22 <b>Total</b>	<b>956,891</b>	<b>706,842</b>	<b>252</b>	<b>2,635</b>	<b>523</b>	<b>226</b>	<b>209</b>	<b>197</b>	<b>247</b>	<b>77</b>	<b>276</b>	<b>2,635</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 58a: Credit quality of performing and non-performing exposures by past due days for significant subsidiary – continued**  
Barclays Bank PLC

	Gross carrying amount/nominal amount												
	Performing exposures			Unlikely to pay that are not past due or are past due ≤ 90 days	Non-performing exposures								Of which defaulted
	Not past due or past due ≤ 30 days	Past due > 30 days ≤ 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			
€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	
<b>As at 31 December 2020</b>													
1 Loans and advances	611,880	611,144	736	3,111	1,158	567	585	177	271	91	262	3,110	
2 Central banks	147,783	147,783	–	–	–	–	–	–	–	–	–	–	
3 General governments	2,400	2,400	–	–	–	–	–	–	–	–	–	–	
4 Credit institutions	58,659	58,659	–	3	3	–	–	–	–	–	–	3	
5 Other financial corporations	339,214	339,136	78	179	17	5	95	61	–	1	–	179	
6 Non-financial corporations	53,848	53,240	608	1,846	1,067	400	214	83	68	5	9	1,846	
7 Of which SMEs	608	602	6	7	1	5	1	–	–	–	–	7	
8 Households	9,976	9,926	50	1,083	71	162	276	33	203	85	253	1,082	
9 Debt securities	66,609	66,609	–	–	–	–	–	–	–	–	–	–	
10 Central banks	649	649	–	–	–	–	–	–	–	–	–	–	
11 General governments	43,877	43,877	–	–	–	–	–	–	–	–	–	–	
12 Credit institutions	13,295	13,295	–	–	–	–	–	–	–	–	–	–	
13 Other financial corporations	7,575	7,575	–	–	–	–	–	–	–	–	–	–	
14 Non-financial corporations	1,213	1,213	–	–	–	–	–	–	–	–	–	–	
15 Off-balance-sheet exposures	210,364			1,957								1,956	
16 Central banks	6			–								–	
17 General governments	2,420			–								–	
18 Credit institutions	6,878			23								23	
19 Other financial corporations	65,561			166								166	
20 Non-financial corporations	133,843			1,768								1,767	
21 Households	1,656			–								–	
22 <b>Total</b>	888,853	677,753	736	5,068	1,158	567	585	177	271	91	262	5,066	

## Risk and capital position review

### Analysis of credit risk continued

**Table 59: Performing and non-performing exposures and related provisions**

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

Barclays Group		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
As at 31 December 2021		£m	Of which Stage 1	Of which Stage 2	£m	Of which Stage 2	Of which Stage 3	£m	Of which Stage 1	Of which Stage 2	£m	Of which Stage 2	Of which Stage 3			
1	Loans and advances	836,706	796,338	40,368	7,568	163	7,382	(3,238)	(1,223)	(2,015)	(2,613)	(9)	(2,604)	(248)	403,128	3,648
2	Central banks	266,931	266,931	—	—	—	—	—	—	—	—	—	—	—	13,344	—
3	General governments	9,967	9,941	26	—	—	—	(4)	(3)	(1)	—	—	—	—	7,686	—
4	Credit institutions	49,517	49,509	8	—	—	—	(2)	(2)	—	—	—	—	—	24,591	—
5	Other financial corporations	208,608	207,661	947	71	—	71	(25)	(20)	(5)	(33)	—	(33)	—	135,254	21
6	Non-financial corporations	87,513	73,278	14,235	2,771	—	2,771	(615)	(353)	(262)	(615)	—	(615)	(248)	47,717	1,486
7	Of which SMEs	20,446	17,977	2,469	1,872	—	1,872	(270)	(196)	(74)	(202)	—	(202)	—	16,808	635
8	Households	214,170	189,018	25,152	4,726	163	4,540	(2,592)	(845)	(1,747)	(1,965)	(9)	(1,956)	—	174,536	2,141
9	Debt securities	95,336	94,743	593	1	—	1	(15)	(9)	(6)	(1)	—	(1)	—	2,123	—
10	Central banks	1,336	1,336	—	—	—	—	—	—	—	—	—	—	—	—	—
11	General governments	60,459	60,400	59	—	—	—	(3)	(3)	—	—	—	—	—	—	—
12	Credit institutions	15,149	15,073	76	—	—	—	(1)	(1)	—	—	—	—	—	1,485	—
13	Other financial corporations	12,771	12,514	257	—	—	—	(3)	(1)	(2)	—	—	—	—	371	—
14	Non-financial corporations	5,621	5,420	201	1	—	1	(8)	(4)	(4)	(1)	—	(1)	—	267	—
15	Off-balance-sheet exposures	371,683	337,232	34,451	1,298	—	1,298	(519)	(217)	(302)	(23)	—	(23)	—	36,690	37
16	Central banks	595	595	—	—	—	—	—	—	—	—	—	—	—	150	—
17	General governments	2,450	2,374	76	—	—	—	—	—	—	—	—	—	—	—	—
18	Credit institutions	2,401	2,382	19	—	—	—	(1)	(1)	—	—	—	—	—	18	—
19	Other financial corporations	64,515	62,607	1,908	98	—	98	(10)	(7)	(3)	—	—	—	—	15,961	—
20	Non-financial corporations	166,752	140,022	26,730	1,002	—	1,002	(414)	(173)	(241)	(23)	—	(23)	—	15,572	34
21	Households	134,970	129,252	5,718	198	—	198	(94)	(36)	(58)	—	—	—	—	4,989	3
22	<b>Total</b>	<b>1,303,725</b>	<b>1,228,313</b>	<b>75,412</b>	<b>8,867</b>	<b>163</b>	<b>8,681</b>	<b>(3,772)</b>	<b>(1,449)</b>	<b>(2,323)</b>	<b>(2,637)</b>	<b>(9)</b>	<b>(2,628)</b>	<b>(248)</b>	<b>441,941</b>	<b>3,685</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 59: Performing and non-performing exposures and related provisions – continued**  
Barclays Group

		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	Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3					
		€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m
<b>As at 31 December 2020</b>																
1	Loans and advances	781,782	730,428	51,354	9,340	187	9,122	(4,632)	(1,063)	(3,569)	(3,811)	(12)	(3,799)	(272)	383,831	3,352
2	Central banks	209,819	209,819	–	–	–	–	–	–	–	–	–	–	–	5,073	–
3	General governments	11,763	11,763	–	–	–	–	(1)	(1)	–	–	–	–	–	9,064	–
4	Credit institutions	48,123	48,034	89	3	–	3	(4)	(3)	(1)	–	–	–	–	20,749	–
5	Other financial corporations	217,470	214,180	3,290	201	–	201	(37)	(21)	(16)	(150)	–	(150)	(116)	139,228	16
6	Non-financial corporations	90,691	72,207	18,484	3,469	–	3,469	(1,040)	(315)	(725)	(947)	–	(947)	(156)	46,391	1,115
7	Of which SMEs	21,942	19,665	2,277	1,403	–	1,403	(161)	(58)	(103)	(234)	–	(234)	–	18,348	816
8	Households	203,916	174,425	29,491	5,667	187	5,449	(3,550)	(723)	(2,827)	(2,714)	(12)	(2,702)	–	163,326	2,221
9	Debt securities	103,440	99,724	3,716	–	–	–	(21)	(12)	(9)	–	–	–	–	1,385	–
10	Central banks	688	688	–	–	–	–	–	–	–	–	–	–	–	–	–
11	General governments	68,516	66,779	1,737	–	–	–	(7)	(4)	(3)	–	–	–	–	–	–
12	Credit institutions	19,551	17,892	1,659	–	–	–	(4)	(2)	(2)	–	–	–	–	1,385	–
13	Other financial corporations	9,965	9,739	226	–	–	–	(6)	(2)	(4)	–	–	–	–	–	–
14	Non-financial corporations	4,720	4,626	94	–	–	–	(4)	(4)	–	–	–	–	–	–	–
15	Off-balance-sheet exposures	358,465	306,351	52,114	2,330	–	2,330	(1,014)	(256)	(758)	(50)	–	(50)	–	33,239	230
16	Central banks	656	656	–	–	–	–	–	–	–	–	–	–	–	–	–
17	General governments	2,420	2,420	–	–	–	–	–	–	–	–	–	–	–	–	–
18	Credit institutions	3,025	2,809	216	23	–	23	(7)	(3)	(4)	–	–	–	–	21	–
19	Other financial corporations	63,448	61,377	2,071	167	–	167	(41)	(14)	(27)	(13)	–	(13)	–	16,927	–
20	Non-financial corporations	154,877	117,025	37,852	1,935	–	1,935	(622)	(195)	(427)	(37)	–	(37)	–	11,382	228
21	Households	134,039	122,064	11,975	205	–	205	(344)	(44)	(300)	–	–	–	–	4,909	2
22	<b>Total</b>	<b>1,243,687</b>	<b>1,136,503</b>	<b>107,184</b>	<b>11,670</b>	<b>187</b>	<b>11,452</b>	<b>(5,667)</b>	<b>(1,331)</b>	<b>(4,336)</b>	<b>(3,861)</b>	<b>(12)</b>	<b>(3,849)</b>	<b>(272)</b>	<b>418,455</b>	<b>3,582</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 59a: Performing and non-performing exposures and related provisions for significant subsidiary  
Barclays Bank PLC**

	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		Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3					
£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>As at 31 December 2021</b>																
1 Loans and advances	641,460	628,919	12,541	1,754	26	1,728	(413)	(216)	(197)	(769)	—	(769)	(248)	253,097	688	
2 Central banks	167,473	167,473	—	—	—	—	—	—	—	—	—	—	—	12,396	—	
3 General governments	1,503	1,501	2	—	—	—	—	—	—	—	—	—	—	246	—	
4 Credit institutions	54,903	54,902	1	—	—	—	(3)	(3)	—	—	—	—	—	29,665	—	
5 Other financial corporations	350,640	349,676	964	42	—	42	(26)	(21)	(5)	(27)	—	(27)	—	176,656	—	
6 Non-financial corporations	54,866	44,026	10,840	766	—	766	(354)	(166)	(188)	(379)	—	(379)	(248)	23,672	92	
7 Of which SMEs	709	636	73	6	—	6	(39)	(17)	(22)	(6)	—	(6)	—	7	1	
8 Households	12,075	11,341	734	946	26	920	(30)	(26)	(4)	(363)	—	(363)	—	10,462	596	
9 Debt securities	65,634	65,317	317	1	—	1	(8)	(6)	(2)	(1)	—	(1)	—	1,230	—	
10 Central banks	1,243	1,243	—	—	—	—	—	—	—	—	—	—	—	—	—	
11 General governments	43,635	43,575	60	—	—	—	(3)	(3)	—	—	—	—	—	—	—	
12 Credit institutions	9,888	9,888	—	—	—	—	—	—	—	—	—	—	—	931	—	
13 Other financial corporations	8,896	8,639	257	—	—	—	(3)	(1)	(2)	—	—	—	—	299	—	
14 Non-financial corporations	1,972	1,972	—	1	—	1	(2)	(2)	—	(1)	—	(1)	—	—	—	
15 Off-balance-sheet exposures	249,797	225,358	24,439	880	—	880	(404)	(169)	(235)	(23)	—	(23)	—	46,315	16	
16 Central banks	5	5	—	—	—	—	—	—	—	—	—	—	—	—	—	
17 General governments	2,448	2,372	76	—	—	—	—	—	—	—	—	—	—	—	—	
18 Credit institutions	10,499	10,480	19	—	—	—	(8)	(7)	(1)	—	—	—	—	13	—	
19 Other financial corporations	89,559	87,696	1,863	98	—	98	(9)	(6)	(3)	—	—	—	—	30,942	—	
20 Non-financial corporations	145,589	123,146	22,443	782	—	782	(387)	(156)	(231)	(23)	—	(23)	—	15,118	16	
21 Households	1,697	1,659	38	—	—	—	—	—	—	—	—	—	—	242	—	
22 <b>Total</b>	<b>956,891</b>	<b>919,594</b>	<b>37,297</b>	<b>2,635</b>	<b>26</b>	<b>2,609</b>	<b>(825)</b>	<b>(391)</b>	<b>(434)</b>	<b>(793)</b>	<b>—</b>	<b>(793)</b>	<b>(248)</b>	<b>300,642</b>	<b>704</b>	

## Risk and capital position review

### Analysis of credit risk continued

**Table 59a: Performing and non-performing exposures and related provisions for significant subsidiary – continued**

**Barclays Bank PLC**

		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	Of which Stage 1	Of which Stage 2		Of which Stage 2	Of which Stage 3					
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2020</b>																
1	Loans and advances	611,880	595,212	16,668	3,111	22	3,089	(885)	(342)	(543)	(1,193)	–	(1,193)	(272)	226,663	908
2	Central banks	147,783	147,783	–	–	–	–	–	–	–	–	–	–	–	4,813	–
3	General governments	2,400	2,400	–	–	–	–	–	–	–	–	–	–	–	628	–
4	Credit institutions	58,659	58,577	82	3	–	3	(5)	(4)	(1)	–	–	–	–	26,039	–
5	Other financial corporations	339,214	335,949	3,265	179	–	179	(47)	(32)	(15)	(146)	–	(146)	(116)	167,216	1
6	Non-financial corporations	53,848	41,178	12,670	1,846	–	1,846	(780)	(269)	(511)	(652)	–	(652)	(156)	19,591	239
7	Of which SMEs	608	527	81	7	–	7	(54)	(24)	(30)	(6)	–	(6)	–	8	1
8	Households	9,976	9,325	651	1,083	22	1,061	(53)	(37)	(16)	(395)	–	(395)	–	8,376	668
9	Debt securities	66,609	63,697	2,912	–	–	–	(14)	(7)	(7)	–	–	–	–	1,065	–
10	Central banks	649	649	–	–	–	–	–	–	–	–	–	–	–	–	–
11	General governments	43,877	42,360	1,517	–	–	–	(6)	(4)	(2)	–	–	–	–	–	–
12	Credit institutions	13,295	12,113	1,182	–	–	–	(2)	(1)	(1)	–	–	–	–	1,065	–
13	Other financial corporations	7,575	7,370	205	–	–	–	(6)	(2)	(4)	–	–	–	–	–	–
14	Non-financial corporations	1,213	1,205	8	–	–	–	–	–	–	–	–	–	–	–	–
15	Off-balance-sheet exposures	210,364	174,417	35,947	1,957	–	1,957	(604)	(200)	(404)	(50)	–	(50)	–	41,600	214
16	Central banks	6	6	–	–	–	–	–	–	–	–	–	–	–	–	–
17	General governments	2,420	2,420	–	–	–	–	–	–	–	–	–	–	–	–	–
18	Credit institutions	6,878	6,714	164	23	–	23	(6)	(2)	(4)	–	–	–	–	21	–
19	Other financial corporations	65,561	63,673	1,888	166	–	166	(20)	(14)	(6)	(13)	–	(13)	–	30,411	–
20	Non-financial corporations	133,843	100,040	33,803	1,768	–	1,768	(578)	(184)	(394)	(37)	–	(37)	–	11,057	214
21	Households	1,656	1,564	92	–	–	–	–	–	–	–	–	–	–	111	–
22	<b>Total</b>	<b>888,853</b>	<b>833,326</b>	<b>55,527</b>	<b>5,068</b>	<b>22</b>	<b>5,046</b>	<b>(1,503)</b>	<b>(549)</b>	<b>(954)</b>	<b>(1,243)</b>	<b>–</b>	<b>(1,243)</b>	<b>(272)</b>	<b>269,328</b>	<b>1,122</b>

## Risk and capital position review

### Analysis of credit risk continued

**Table 60: Collateral obtained by taking possession and execution processes**

This table provides an overview of foreclosed assets obtained from non-performing exposures.

#### Barclays Group

		Collateral obtained by taking possession	
		Value at initial recognition	Accumulated negative changes
		£m	£m
<b>As at 31 December 2021</b>			
1	Property, plant and equipment (PP&E)	—	—
2	Other than PP&E	—	—
3	Residential immovable property	19	12
4	Commercial Immovable property	—	—
5	Movable property (auto, shipping, etc.)	—	—
6	Equity and debt instruments	—	—
7	Other	16	1
8	<b>Total</b>	<b>35</b>	<b>13</b>
<b>As at 31 December 2020</b>			
1	Property, plant and equipment (PP&E)	—	—
2	Other than PP&E	—	—
3	Residential immovable property	21	15
4	Commercial Immovable property	—	—
5	Movable property (auto, shipping, etc.)	—	—
6	Equity and debt instruments	—	—
7	Other	—	—
8	<b>Total</b>	<b>21</b>	<b>15</b>

**Table 60a: Collateral obtained by taking possession and execution processes for significant subsidiary**

#### Barclays Bank PLC

		Collateral obtained by taking possession	
		Value at initial recognition	Accumulated negative changes
		£m	£m
<b>As at 31 December 2021</b>			
1	Property, plant and equipment (PP&E)	—	—
2	Other than PP&E	—	—
3	Residential immovable property	19	12
4	Commercial Immovable property	—	—
5	Movable property (auto, shipping, etc.)	—	—
6	Equity and debt instruments	—	—
7	Other	16	1
8	<b>Total</b>	<b>35</b>	<b>13</b>
<b>As at 31 December 2020</b>			
1	Property, plant and equipment (PP&E)	—	—
2	Other than PP&E	—	—
3	Residential immovable property	21	15
4	Commercial Immovable property	—	—
5	Movable property (auto, shipping, etc.)	—	—
6	Equity and debt instruments	—	—
7	Other	—	—
8	<b>Total</b>	<b>21</b>	<b>15</b>



## Risk and capital position review

### Analysis of credit risk continued

**Table 61: CR2-B – Changes in the stock of defaulted and impaired loans and debt securities**

This table provides an overview of the Bank's stock of defaulted and impaired loans and debt securities.

Barclays Group		Gross carrying value defaulted exposures <sup>a</sup>
		£m
1	<b>As at 1 January 2021</b>	<b>9,311</b>
2	Loans and debt securities that have defaulted or impaired since the last reporting period	<b>3,580</b>
3	Returned to non-defaulted status	<b>(1,315)</b>
4	Amounts written off	<b>(1,851)</b>
5	Other changes <sup>b</sup>	<b>(2,181)</b>
6	<b>As at 31 December 2021</b>	<b>7,544</b>

#### Notes

- a Defaulted exposures are defined as all Stage 3 impaired gross loans and debt securities under IFRS 9 and any Stage 1 and Stage 2 gross loans and debt securities under IFRS 9 more than 90 days past due.
- b Other changes include repayments and disposals net drawdowns.

**Table 62: CR2-A – Changes in the stock of general and specific credit risk adjustments**

This table shows the movement in the impairment allowance the year.

Barclays Group		Accumulated specific credit risk adjustment <sup>a</sup>	Accumulated general credit risk adjustment
		£m	£m
1	<b>As at 1 January 2021</b>	<b>9,528</b>	—
2	Increases due to amounts set aside for estimated loan losses during the period <sup>b</sup>	<b>(1,229)</b>	—
3	Decreases due to amounts reversed for estimated loan losses during the period <sup>c</sup>	<b>(1,851)</b>	—
4	Decreases due to amounts taken against accumulated credit risk adjustments	—	—
5	Transfers between credit risk adjustments	—	—
6	Impact of exchange rate differences	<b>(39)</b>	—
7	Business combinations, including acquisitions and disposals of subsidiaries	—	—
9	Other adjustments	—	—
10	<b>As at 31 December 2021</b>	<b>6,409</b>	—
11	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss <sup>d</sup>	<b>240</b>	—
12	Specific credit risk adjustments directly recorded to the statement of profit or loss	—	—

#### Notes

- a Excludes other assets impairment of £110m.
- b Increases due to amounts set aside for estimated loan losses during the period includes the net impact of changes made to parameters (such as probability of default, exposure at default and loss given default), changes in macro-economic variables, new assets originated, repayments and drawdowns.
- c Represents amounts written off.
- d Recoveries include a net reduction in amounts recoverable from financial guarantee contracts held with third parties of £306m and cash recoveries of previously written off amounts to £66m.

## Risk and capital position review

### Analysis of credit risk continued

**Table 63: Loans and advances subject to legislative and non-legislative moratoria**

This table provides an overview of the credit quality of loans and advances subject to moratoria on loan repayments applied in the light of the COVID-19 crisis.

#### Barclays Group

	Gross carrying amount								Accumulated impairment, accumulated negative changes in fair value due to credit risk						Gross carrying amount
	Performing				Non-performing				Performing			Non-performing			
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
			Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)			Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due <= 90 days				Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due <= 90 days	Inflows to non-performing exposures
<b>As at 31 December 2021</b>															
1 Loans and advances subject to moratorium	192	183	14	71	9	7	3	2	2	—	1	—	0	—	2
2 of which: Households	28	27	—	20	1	1	1	1	1	—	1	—	0	—	—
3 of which: Collateralised by residential immovable property	28	27	—	20	1	1	1	1	1	—	1	—	0	—	—
4 of which: Non-financial corporations	164	156	14	51	8	6	2	1	1	—	1	—	0	—	2
5 of which: Small and Medium-sized Enterprises	130	122	14	33	8	6	2	1	1	—	—	—	—	—	2
6 of which: Collateralised by commercial immovable property	7	7	—	—	—	—	—	—	—	—	—	—	—	—	—

#### Note

a Balances identified as forborne for Non-Households relate to where a client has at least one facility subject to forbearance and may not specifically relate to public guarantee scheme facilities.

## Risk and capital position review

### Analysis of credit risk continued

**Table 64: Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria**

This table provides an overview of the volume of loans and advances subject to legislative and non-legislative moratoria.

		Gross carrying amount								
		Number of obligors	Residual maturity of moratoria							
			£m	Of which: legislative moratoria £m	Of which: expired £m	<= 3 months £m	> 3 months <= 6 months £m	> 6 months <= 9 months £m	> 9 months <= 12 months £m	> 1 year £m
<b>As of 31 December 2021</b>										
1	Loans and advances for which moratorium was offered	<b>570,689</b>	<b>23,977</b>							
2	Loans and advances subject to moratorium (granted)	<b>538,785</b>	<b>23,627</b>	<b>332</b>	<b>23,434</b>	<b>72</b>	<b>73</b>	<b>31</b>	<b>11</b>	<b>6</b>
3	of which: Households		<b>20,891</b>	<b>332</b>	<b>20,862</b>	<b>14</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>4</b>
4	of which: Collateralised by residential immovable property		<b>19,297</b>	<b>279</b>	<b>19,268</b>	<b>14</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>4</b>
5	of which: Non-financial corporations		<b>2,733</b>	—	<b>2,568</b>	<b>58</b>	<b>67</b>	<b>30</b>	<b>8</b>	<b>2</b>
6	of which: Small and Medium-sized Enterprises		<b>2,017</b>	—	<b>1,888</b>	<b>49</b>	<b>53</b>	<b>19</b>	<b>8</b>	—
7	of which: Collateralised by commercial immovable property		<b>162</b>	—	<b>154</b>	—	<b>6</b>	—	—	<b>2</b>

**Table 65: Newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis**

This table provides an overview of the stock of newly originated loans and advances subject to public guarantee schemes introduced in response to COVID-19 crisis.

		Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
		of which: forborne <sup>a</sup>		Public guarantees received	Inflows to non-performing exposures
		£m	£m	£m	£m
<b>As of 31 December 2021</b>					
1	Newly originated loans and advances subject to public guarantee schemes	<b>11,494</b>	<b>186</b>	<b>11,071</b>	<b>735</b>
2	of which: Households	—	—	—	—
3	of which: Collateralised by residential immovable property	—	—	—	—
4	of which: Non-financial corporations	<b>11,427</b>	<b>183</b>	<b>11,010</b>	<b>735</b>
5	of which: Small and Medium-sized Enterprises	<b>11,177</b>	—	—	<b>735</b>
6	of which: Collateralised by commercial immovable property	<b>7</b>	—	—	—

#### Note

a Balances identified as forborne for Non-Households relate to where a client has at least one facility subject to forbearance and may not specifically relate to public guarantee scheme facilities.

## Risk and capital position review

### Analysis of credit risk continued

#### Regulatory adjustments to statutory Impairment

The IFRS impairment allowance is adjusted to reflect a regulatory view, which is used to calculate the provision misalignment adjustment to regulatory capital. The primary differences are detailed below:

- Scope of consolidation - adjustments driven by differences between the IFRS and regulatory consolidation, as highlighted on page 14. These include, but are not exclusive to, associates and impairments relating to securitisation vehicles.

**Table 66: Regulatory adjustments to statutory Impairment**

<b>As at 31 December 2021</b>		<i>€m</i>
IFRS allowance for impairment	<b>6,397</b>	
Scope of consolidation	<b>123</b>	
Regulatory impairment allowance	<b>6,520</b>	

## Risk and capital position review

### Analysis of credit risk continued

#### Loss analysis – regulatory expected loss (EL) versus actual losses

The following table compares Barclays regulatory expected loss measure against the actual loss for those portfolios where credit risk is calculated using the AIRB approach.

As expected loss best estimate (ELBE) represents a charge for assets already in default, it has been separately disclosed from total EL. This facilitates comparison of actual loss during the period to the expectation of future loss or EL, as per AIRB models in the prior period.

The following should be considered when comparing EL and actual loss metrics:

- The purpose of EL is not to represent a prediction of future impairment charges
- Whilst the impairment charge and the EL measure respond to similar drivers, they are not directly comparable
- The EL does not reflect growth of portfolios or changes in the mix of exposures. In forecasting and calculating impairment, balances and trends in the cash flow behaviour of customer accounts are considered.

#### Regulatory Expected Loss

EL is an input to the capital adequacy calculation which can be seen as an expectation of average future loss based on AIRB models over a one year period as follows:

- Non-defaulted assets: EL is calculated using probability of default, downturn loss given default estimates and exposures at default
- Defaulted assets: EL is based upon an estimate of likely recovery levels for each asset and is generally referred to as ELBE.

**Table 67: Analysis of expected loss versus actual losses for AIRB exposures**

#### AIRB Exposure Class

Barclays Group	EL	ELBE	Total expected loss as at 31 December 2020	Total actual loss as at 31 December 2021
	€m	€m	€m	€m
Central governments or central banks	9	—	9	0
Institutions	22	0	22	24
Corporates	666	624	1,290	(399)
Retail	—	—	—	—
– SME	106	89	195	36
– Secured by real estate collateral	349	373	722	(13)
– Qualifying revolving retail	689	694	1,383	(359)
– Other retail	125	240	365	(7)
Equity	—	—	—	—
Securitisation positions	—	—	—	—
Non-credit obligation assets	—	—	—	—
<b>Total AIRB</b>	<b>1,966</b>	<b>2,020</b>	<b>3,986</b>	<b>(718)</b>

Barclays Group	EL	ELBE	Total expected loss as at 31 December 2019	Total actual loss as at 31 December 2020
	€m	€m	€m	€m
Central governments or central banks	8	—	8	—
Institutions	17	1	18	5
Corporates	469	421	890	1,043
Retail	—	—	—	—
– SME	128	90	218	74
– Secured by real estate collateral	317	309	626	100
– Qualifying revolving retail	720	599	1,319	1,007
– Other retail	183	217	400	204
Equity	—	—	—	—
Securitisation positions	—	—	—	—
Non-credit obligation assets	—	—	—	—
<b>Total AIRB</b>	<b>1,842</b>	<b>1,637</b>	<b>3,479</b>	<b>2,433</b>

## Risk and capital position review

### Analysis of credit risk continued

#### Non-trading book equity investments

The holding of non-trading book equity positions is primarily related to the holding of investments by the Private Equity business.

##### Table 68: Fair value of gains and losses on equity investments

This table shows the fair value of non-trading book equity positions subject to credit risk calculations, plus associated gains and losses.

##### Non trading book equity positions

	As at 31 December 2021		As at 31 December 2020	
	Fair Value £m	RWAs £m	Fair Value £m	RWAs £m
<b>Barclays Group</b>				
Exchange Traded	934	2,214	756	1,792
Private Equity	1,875	2,850	1,393	2,110
Other	—	—	—	—
<b>Total</b>	<b>2,809</b>	<b>5,064</b>	2,149	3,902
<b>Realised gains/(losses) from sale and liquidations of equity investments</b>	<b>165</b>	—	58	—
<b>Unrealised gains/(losses)</b>	<b>(106)</b>	—	(49)	—
Unrealised gains/losses included in PRA transitional CET1 Capital	(106)	—	(49)	—

# 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.

- Counterparty credit risk (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

Risk weighted assets for counterparty credit risk increased **£2.0bn** (December 2020: **£33.2bn**).

Mainly driven by

**£1.8bn**

Increase in client and trading activities within SFTs

## Risk and capital position review

# Analysis of counterparty credit risk

### CCR exposures

CCR is the risk related to a counterparty defaulting before the final transaction settlement. Barclays calculates the exposures subject to CCR using three methods: IMM, FCCM, and MTM.

The following tables analyse CCR exposures and risk weighted assets split by regulatory exposure classes.

**Table 69: Detailed view of counterparty credit risk RWAs and capital requirements**

#### Barclays Group

	As at 31 December 2021			As at 31 December 2020		
	EAD £m	RWA £m	Capital requirements £m	EAD £m	RWA £m	Capital requirements £m
<b>Standardised approach</b>						
Central governments or central banks	3,532	14	1	3,675	4	—
Regional governments or local authorities	1,411	—	—	2,606	2	—
Public sector entities	1,049	105	8	1,225	145	12
Multilateral development banks	249	1	—	296	1	—
International organisations	110	—	—	182	—	—
Institutions	24,576	903	72	24,104	993	79
Corporates	13,875	13,736	1,099	10,425	10,500	840
Retail	—	—	—	—	—	—
Secured by mortgages	—	—	—	—	—	—
Exposures in default	1	1	—	—	—	—
Items associated with high risks	—	—	—	—	—	—
Covered bonds	—	—	—	—	—	—
Securitisation positions	80	77	6	119	102	8
Collective investment undertakings	—	—	—	—	—	—
Equity positions	—	—	—	—	—	—
Other items	—	—	—	—	—	—
<b>Total standardised approach</b>	<b>44,883</b>	<b>14,837</b>	<b>1,186</b>	<b>42,632</b>	<b>11,747</b>	<b>939</b>
<b>Advanced IRB approach</b>						
Central governments or central banks	7,836	1,184	94	7,144	763	61
Institutions	20,637	4,992	399	22,281	5,184	415
Corporates	57,197	13,081	1,046	51,875	14,377	1,150
Retail	—	—	—	—	—	—
– Small and medium-sized enterprises (SMEs)	—	—	—	—	—	—
– Secured by real estate collateral	—	—	—	—	—	—
– Qualifying revolving retail	—	—	—	—	—	—
– Other retail	—	—	—	—	—	—
Equity	—	—	—	—	—	—
Securitisation positions	—	—	—	—	—	—
Non-credit obligation assets	—	—	—	—	—	—
<b>Total advanced IRB approach</b>	<b>85,670</b>	<b>19,257</b>	<b>1,539</b>	<b>81,300</b>	<b>20,324</b>	<b>1,626</b>
<b>Default fund contributions</b>	<b>2,416</b>	<b>1,131</b>	<b>90</b>	<b>2,113</b>	<b>1,115</b>	<b>89</b>
<b>Total</b>	<b>132,969</b>	<b>35,225</b>	<b>2,815</b>	<b>126,045</b>	<b>33,186</b>	<b>2,654</b>

CCR post-CRM and RWAs increased €6.9bn to €133.0bn and €2.0bn to €35.2bn respectively, primarily due to increased client and trading activities within SFTs partially offset by a reduction in derivatives.



## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 69a: Detailed view of counterparty credit risk RWAs and capital requirements for significant subsidiary**

**Barclays Bank PLC**

	As at 31 December 2021		As at 31 December 2020	
	RWA £m	Capital requirements £m	RWA £m	Capital requirements £m
<b>Standardised approach</b>				
Central governments or central banks	13	1	2	—
Regional governments or local authorities	—	—	2	—
Public sector entities	98	8	142	11
Multilateral development banks	1	—	1	—
International organisations	—	—	—	—
Institutions	4,768	381	3,279	262
Corporates	10,555	844	7,731	619
Retail	—	—	—	—
Secured by mortgages	—	—	—	—
Exposures in default	1	—	—	—
Items associated with high risks	—	—	—	—
Covered bonds	—	—	—	—
Securitisation positions	77	6	103	8
Collective investment undertakings	—	—	—	—
Equity positions	—	—	—	—
Other items	—	—	—	—
<b>Total standardised approach</b>	<b>15,513</b>	<b>1,240</b>	11,260	900
<b>Advanced IRB approach</b>				
Central governments or central banks	1,038	83	644	52
Institutions	4,053	324	4,190	335
Corporates	10,252	820	11,965	957
Retail	—	—	—	—
– Small and medium-sized enterprises (SMEs)	—	—	—	—
– Secured by real estate collateral	—	—	—	—
– Qualifying revolving retail	—	—	—	—
– Other retail	—	—	—	—
Equity	—	—	—	—
Securitisation positions	—	—	—	—
Non-credit obligation assets	—	—	—	—
<b>Total advanced IRB approach</b>	<b>15,343</b>	<b>1,227</b>	16,799	1,344
<b>Default fund contributions</b>	<b>457</b>	<b>37</b>	625	50
<b>Total</b>	<b>31,313</b>	<b>2,504</b>	28,684	2,294

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 70: CCR1 – Analysis of CCR exposure by approach**

This table excludes default fund contribution and as such cannot be directly reconciled to table 69.

#### Barclays Group

	Notional £m	Replacement cost/current market value £m	Potential future credit exposure £m	EEPE £m	Multiplier	EAD post CRM £m	RWAs £m
<b>As at 31 December 2021</b>							
1 Mark to market		3,705	9,932			7,297	2,836
2 Original exposure	—					—	—
3 Standardised approach		—				—	—
4 IMM (for derivatives and SFTs)				76,514	1.4	107,119	24,635
5 Of which securities financing transactions				29,937	1.4	41,912	5,578
6 Of which derivatives and long settlement transactions				46,577	1.4	65,207	19,057
7 Of which from contractual cross-product netting				—	1.4	—	—
8 Financial collateral simple method (for SFTs)						—	—
9 Financial collateral comprehensive method (for SFTs)						16,137	6,623
10 VaR for SFTs						—	—
11 <b>Total</b>							<b>34,094</b>

#### As at 31 December 2020

1 Mark to market		2,633	19,512			9,574	2,219
2 Original exposure	—					—	—
3 Standardised approach		—				—	—
4 IMM (for derivatives and SFTs)				72,284	1.4	101,196	25,582
5 Of which securities financing transactions				25,429	1.4	35,600	4,388
6 Of which derivatives and long settlement transactions				46,855	1.4	65,596	21,194
7 Of which from contractual cross-product netting				—	1.4	—	—
8 Financial collateral simple method (for SFTs)						—	—
9 Financial collateral comprehensive method (for SFTs)						13,162	4,270
10 VaR for SFTs						—	—
11 <b>Total</b>							<b>32,071</b>

CCR RWAs increased by £2.0bn to £34.1bn primarily driven by increase in client and trading activities within SFTs, partially offset by a reduction in IMM derivatives.

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 71: CCR3 Counterparty credit risk exposures by exposure classes and risk weight under standardised approach**

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

#### Exposures by regulatory portfolio and risk

		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	of which: Unrated	
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	
<b>Barclays Group</b>																				
<b>As at 31 December 2021</b>																				
1	Central governments or central banks	3,491	—	—	—	32	—	4	—	—	5	—	—	—	—	—	—	3,532	999	
2	Regional governments or local authorities	1,410	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1,411	5	
3	Public sector entities	526	—	—	—	522	—	1	—	—	—	—	—	—	—	—	—	1,049	528	
4	Multilateral development banks	243	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	249	6	
5	International organisations	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110	45	
6	Institutions	—	23,487	—	—	390	—	688	—	—	11	—	—	—	—	—	—	24,576	9,535	
7	Corporates	—	—	—	—	48	—	234	—	—	13,503	—	—	—	—	—	—	13,785	13,237	
8	Retail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9	Secured by mortgages on immovable property	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10	Exposures in default	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	
11	Items associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14	Claims in the form of CIU	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15	Equity exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
16	Other items	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17	<b>Total</b>	<b>5,780</b>	<b>23,487</b>	—	—	<b>999</b>	—	<b>927</b>	—	—	<b>13,519</b>	<b>1</b>	—	—	—	—	—	<b>44,713</b>	<b>24,356</b>	

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 71: CCR3 Counterparty credit risk exposures by exposure classes and risk weight under standardised approach - continued**  
Exposures by regulatory portfolio and risk

Barclays Group		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	of which:	
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	Unrated
<b>As at 31 December 2020</b>																				
1	Central governments or central banks	3,669	—	—	—	—	—	3	—	—	3	—	—	—	—	—	—	—	3,675	358
2	Regional governments or local authorities	2,602	—	—	—	2	—	—	—	—	2	—	—	—	—	—	—	—	2,606	180
3	Public sector entities	502	—	—	—	722	—	1	—	—	—	—	—	—	—	—	—	—	1,225	1,220
4	Multilateral development banks	293	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	296	3
5	International organisations	182	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	182	88
6	Institutions	—	22,648	—	—	651	—	788	—	—	17	—	—	—	—	—	—	—	24,104	8,630
7	Corporates	—	—	—	—	27	—	19	—	—	10,234	4	—	—	—	—	—	—	10,284	10,222
8	Retail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	Secured by mortgages on immovable property	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	Exposures in default	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	Items associated with particularly high risk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	Claims on institutions and corporate with a short-term credit assessment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14	Claims in the form of CIU	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	Equity exposures	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16	Other items	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17	<b>Total</b>	7,248	22,648	—	—	1,405	—	811	—	—	10,256	4	—	—	—	—	—	—	42,372	20,701

CCR EAD increased by £2.3bn to £44.7bn primarily driven by an increase in client and trading activities with corporate counterparties.

## Risk and capital position review

### 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 72), institutions (table 73), corporates (table 74) and corporates subject to slotting (table 75).

**Table 72: CCR4 Counterparty credit risk exposures by portfolio and PD range for central governments and central banks**

#### Barclays Group

	EAD post CRM £m	Average PD %	Number of obligors	Average LGD %	Average Maturity	RWA £m	RWA Density %	Expected Loss £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>									
0.00 to < 0.15	7,197	0.0%	49	59.5%	0	709	9.8%	2	0
0.15 to < 0.25	164	0.2%	11	51.8%	1	53	32.2%	0	0
0.25 to < 0.50	154	0.4%	5	45.2%	1	70	45.4%	0	0
0.50 to < 0.75	—	0.0%	—	0.0%	—	—	0.0%	—	0
0.75 to < 2.50	299	2.0%	4	45.1%	0	289	96.6%	3	0
2.50 to < 10.00	3	7.6%	3	55.2%	1	5	217.3%	0	0
10.00 to < 100.00	19	12.1%	1	63.0%	1	58	300.8%	2	0
100.00 (Default)	—	0.0%	—	0.0%	—	—	0.0%	—	0
<b>Total</b>	<b>7,836</b>	<b>0.2%</b>	<b>73</b>	<b>58.5%</b>	<b>0</b>	<b>1,184</b>	<b>15.1%</b>	<b>7</b>	<b>0</b>

#### As at 31 December 2020

0.00 to < 0.15	6,827	0.0%	49	60.3%	0	563	8.2%	3	0
0.15 to < 0.25	140	0.2%	12	53.9%	1	50	36.0%	0	0
0.25 to < 0.50	65	0.3%	6	45.3%	0	21	31.9%	0	0
0.50 to < 0.75	0	0.6%	1	45.0%	1	0	66.5%	0	0
0.75 to < 2.50	104	2.3%	2	45.0%	0	106	101.6%	1	0
2.50 to < 10.00	3	9.1%	3	56.7%	1	8	242.1%	0	0
10.00 to < 100.00	5	13.0%	1	63.0%	1	15	312.1%	0	0
100.00 (Default)	—	0.0%	—	0.0%	—	—	0.0%	—	0
<b>Total</b>	<b>7,144</b>	<b>0.1%</b>	<b>74</b>	<b>59.9%</b>	<b>0</b>	<b>763</b>	<b>10.7%</b>	<b>4</b>	<b>0</b>

The RWA density associated with central governments and central banks increased 4.4% to 15.1% primarily driven by an increase in client and trading activities with counterparties in higher quality PD grade.

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 73: CCR4 Counterparty credit risk exposures by portfolio and PD range for institutions**

**Barclays Group**

	EAD post CRM €m	Average PD %	Number of obligors	Average LGD %	Average Maturity	RWA €m	RWA Density %	Expected Loss €m	Value Adjustment and Provisions €m
<b>As at 31 December 2021</b>									
0.00 to < 0.15	17,824	0.0%	551	47.2%	2	3,652	20.5%	4	0
0.15 to < 0.25	2,102	0.2%	90	45.2%	1	693	33.0%	2	0
0.25 to < 0.50	194	0.4%	75	51.0%	1	109	56.3%	0	0
0.50 to < 0.75	169	0.7%	26	45.5%	1	111	66.3%	1	0
0.75 to < 2.50	132	1.6%	64	45.3%	1	127	95.9%	1	0
2.50 to < 10.00	204	4.5%	61	49.5%	1	288	141.1%	3	0
10.00 to < 100.00	12	14.3%	14	27.5%	1	12	100.7%	0	0
100.00 (Default)	—	0.0%	—	0.0%	—	—	0.0%	—	0
<b>Total</b>	<b>20,637</b>	<b>0.1%</b>	<b>881</b>	<b>47.0%</b>	<b>2</b>	<b>4,992</b>	<b>24.2%</b>	<b>11</b>	<b>0</b>
<b>As at 31 December 2020</b>									
0.00 to < 0.15	21,028	0.1%	523	46.4%	1	4,327	20.6%	6	0
0.15 to < 0.25	364	0.2%	70	44.7%	2	182	49.9%	0	0
0.25 to < 0.50	344	0.3%	79	47.4%	1	169	49.2%	0	0
0.50 to < 0.75	228	0.6%	41	45.8%	1	162	70.9%	1	0
0.75 to < 2.50	161	1.6%	66	45.4%	1	156	96.9%	1	0
2.50 to < 10.00	144	5.1%	69	43.1%	1	174	121.2%	2	0
10.00 to < 100.00	12	14.1%	13	30.3%	1	14	114.1%	0	0
100.00 (Default)	—	0.0%	—	0.0%	—	—	0.0%	—	0
<b>Total</b>	<b>22,281</b>	<b>0.1%</b>	<b>861</b>	<b>46.4%</b>	<b>1</b>	<b>5,184</b>	<b>23.3%</b>	<b>10</b>	<b>0</b>

The RWA density associated with institutions remained broadly stable at 24.2% (December 2020: 23.3%).

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 74: CCR4 Counterparty credit risk exposures by portfolio and PD range for corporates**

**Barclays Group**

	EAD post CRM £m	Average PD %	Number of obligors	Average LGD %	Average Maturity	RWA £m	RWA Density %	Expected Loss £m	Value Adjustment and Provisions £m
<b>As at 31 December 2021</b>									
0.00 to < 0.15	43,984	0.0%	5,886	44.9%	1	6,440	14.6%	9	0
0.15 to < 0.25	4,112	0.2%	632	37.8%	2	1,537	37.4%	3	0
0.25 to < 0.50	2,346	0.3%	315	19.8%	3	688	29.3%	1	0
0.50 to < 0.75	663	0.6%	260	27.0%	3	328	49.5%	1	0
0.75 to < 2.50	3,850	1.1%	286	21.0%	1	1,691	43.9%	9	0
2.50 to < 10.00	1,573	4.7%	238	40.5%	2	1,785	113.5%	21	0
10.00 to < 100.00	516	18.0%	66	22.3%	2	486	94.1%	16	0
100.00 (Default)	38	100.0%	16	8.4%	4	31	81.5%	—	0
<b>Total</b>	<b>57,082</b>	<b>0.5%</b>	<b>7,699</b>	<b>41.2%</b>	<b>1</b>	<b>12,986</b>	<b>22.7%</b>	<b>60</b>	<b>0</b>
<b>As at 31 December 2020</b>									
0.00 to < 0.15	38,215	0.0%	5,864	45.0%	1	5,996	15.7%	8	0
0.15 to < 0.25	3,673	0.2%	586	38.6%	3	1,486	40.5%	3	0
0.25 to < 0.50	2,065	0.3%	416	39.0%	3	1,043	50.5%	2	0
0.50 to < 0.75	761	0.6%	299	37.6%	2	526	68.9%	1	0
0.75 to < 2.50	3,146	1.4%	303	26.4%	3	1,881	59.8%	11	0
2.50 to < 10.00	2,930	4.4%	214	25.6%	2	2,216	75.6%	28	0
10.00 to < 100.00	800	16.3%	85	28.4%	2	996	124.5%	28	0
100.00 (Default)	30	100.0%	12	26.7%	1	60	199.8%	—	0
<b>Total</b>	<b>51,620</b>	<b>0.7%</b>	<b>7,779</b>	<b>41.7%</b>	<b>2</b>	<b>14,204</b>	<b>27.5%</b>	<b>81</b>	<b>0</b>

The RWA density associated with corporates decreased 4.8% to 22.7% primarily driven by increased client and trading activities with counterparties in higher quality PD grade.

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 75: Counterparty credit risk - Corporate exposures subject to the slotting approach**

**Barclays Group**

Regulatory categories	Remaining maturity	On-balance sheet amount £m	Off-balance sheet amount £m	Risk weight %	Exposure amount £m	RWA £m	Expected losses £m
<b>As at 31 December 2021</b>							
Category 1	Strong			Less than 2.5 years	—	—	—
				Equal to or more than 2.5 years	—	—	—
Category 2	Good			Less than 2.5 years	47	33	—
				Equal to or more than 2.5 years	68	61	1
Category 3	Satisfactory			Less than 2.5 years	—	—	—
				Equal to or more than 2.5 years	—	—	—
Category 4	Weak			Less than 2.5 years	—	—	—
				Equal to or more than 2.5 years	—	—	—
Category 5	Default			Less than 2.5 years	—	—	—
				Equal to or more than 2.5 years	—	—	—
<b>Total</b>				Less than 2.5 years	<b>47</b>	<b>33</b>	<b>—</b>
				Equal to or more than 2.5 years	<b>68</b>	<b>61</b>	<b>1</b>

**As at 31 December 2020**

Category 1	Strong			Less than 2.5 years	68	34	—
				Equal to or more than 2.5 years	33	23	—
Category 2	Good			Less than 2.5 years	122	85	1
				Equal to or more than 2.5 years	25	23	—
Category 3	Satisfactory			Less than 2.5 years	4	5	—
				Equal to or more than 2.5 years	4	4	—
Category 4	Weak			Less than 2.5 years	—	—	—
				Equal to or more than 2.5 years	—	—	—
Category 5	Default			Less than 2.5 years	—	—	—
				Equal to or more than 2.5 years	—	—	—
<b>Total</b>				Less than 2.5 years	<b>194</b>	<b>124</b>	<b>1</b>
				Equal to or more than 2.5 years	<b>62</b>	<b>50</b>	<b>—</b>



## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 75a: Counterparty credit risk - Corporate exposures subject to slotting approach for significant subsidiary**

**Barclays Bank PLC**

Regulatory categories		Remaining maturity	On-balance sheet amount £m	Off-balance sheet amount £m	Risk weight %	Exposure amount £m	RWA £m	Expected losses £m
<b>As at 31 December 2021</b>								
Category 1	Strong	Less than 2.5 years			<b>50%</b>	—	—	—
		Equal to or more than 2.5 years			<b>70%</b>	—	—	—
Category 2	Good	Less than 2.5 years			<b>70%</b>	<b>47</b>	<b>33</b>	<b>0</b>
		Equal to or more than 2.5 years			<b>90%</b>	<b>68</b>	<b>61</b>	<b>1</b>
Category 3	Satisfactory	Less than 2.5 years			<b>115%</b>	—	—	—
		Equal to or more than 2.5 years			<b>115%</b>	—	—	—
Category 4	Weak	Less than 2.5 years			<b>250%</b>	—	—	—
		Equal to or more than 2.5 years			<b>250%</b>	—	—	—
Category 5	Default	Less than 2.5 years			<b>0%</b>	—	—	—
		Equal to or more than 2.5 years			<b>0%</b>	—	—	—
<b>Total</b>		Less than 2.5 years				<b>47</b>	<b>33</b>	—
		Equal to or more than 2.5 years				<b>68</b>	<b>61</b>	<b>1</b>
<b>As at 31 December 2020</b>								
Category 1	Strong	Less than 2.5 years			50%	68	34	—
		Equal to or more than 2.5 years			70%	33	23	0
Category 2	Good	Less than 2.5 years			70%	77	54	0
		Equal to or more than 2.5 years			90%	25	23	0
Category 3	Satisfactory	Less than 2.5 years			115%	4	5	0
		Equal to or more than 2.5 years			115%	4	4	0
Category 4	Weak	Less than 2.5 years			250%	—	—	—
		Equal to or more than 2.5 years			250%	—	—	—
Category 5	Default	Less than 2.5 years			0%	—	—	—
		Equal to or more than 2.5 years			0%	—	—	—
<b>Total</b>		Less than 2.5 years				149	93	—
		Equal to or more than 2.5 years				62	50	0

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 76: CCR5-A - Impact of netting and collateral held on exposure values**

This table shows the impact on exposure from netting and collateral held for derivatives and SFTs.

Barclays Group		Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
		£m	£m	£m	£m	£m
<b>As at 31 December 2021</b>						
1	Derivatives	749,006	688,172	60,834	104,932	25,804
2	SFTs	1,393,680	1,367,050	26,630	343	26,630
3	Cross-product netting	—	—	—	—	—
4	<b>Total</b>	<b>2,142,686</b>	<b>2,055,222</b>	<b>87,464</b>	<b>105,275</b>	<b>52,434</b>
<b>As at 31 December 2020</b>						
1	Derivatives	717,174	642,049	75,125	101,194	30,365
2	SFTs	1,211,561	1,188,002	23,559	164	23,559
3	Cross-product netting	—	—	—	—	—
4	<b>Total</b>	<b>1,928,735</b>	<b>1,830,051</b>	<b>98,684</b>	<b>101,358</b>	<b>53,924</b>

Net carrying amount increased £214.0bn to £2,142.7bn primarily due to increased client and trading activities, which was offset by corresponding netting and collateral benefits resulting in a £1.5bn decrease to net credit exposure.

**Table 77: CCR5-B - Composition of collateral for exposures to CCR**

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.

Barclays Group		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
		Segregated	Unsegregated	Segregated	Unsegregated	£m	£m
		£m	£m	£m	£m		
<b>As at 31 December 2021</b>							
1	Cash	—	72,198	—	59,008	330	2,561
2	Debt	19,434	8,910	11,514	2,745	—	—
3	Equity	3,299	—	—	—	—	—
4	Others	—	1,091	—	—	13	—
5	<b>Total</b>	<b>22,733</b>	<b>82,199</b>	<b>11,514</b>	<b>61,753</b>	<b>343</b>	<b>2,561</b>
<b>As at 31 December 2020</b>							
1	Cash	—	79,256	—	68,165	119	1,567
2	Debt	7,998	12,142	6,960	5,042	—	—
3	Equity	60	644	—	—	—	—
4	Others	—	1,094	—	—	45	—
5	<b>Total</b>	<b>8,058</b>	<b>93,136</b>	<b>6,960</b>	<b>73,207</b>	<b>164</b>	<b>1,567</b>

Derivatives collateral received increased £3.7bn to £104.9bn and posted collateral decreased £6.9bn to £73.3bn primarily due to client and trading activities.

## Risk and capital position review

### Analysis of counterparty credit risk continued

#### Credit derivative notionals

The following tables show the notional of the credit derivative transactions outstanding as at 31 December 2021.

Table 78 splits the notional values of credit default swaps (CDS) and total return swaps (TRS), by two categories: own credit portfolio and intermediation activities.

Own credit portfolio consists of trades used for hedging and credit management. Intermediation activities cover all other credit derivatives.

Credit derivatives booked arising from clearing activities performed on behalf of external counterparties are not reported in this table as the Group does not have any long/short exposures to the underlying reference obligations.

Own credit for the purposes of this note is different from own credit used for accounting disclosures purposes, which represents the change in fair value due to Barclays' own credit standing.

**Table 78: Notional exposure associated with credit derivative contracts**

**Outstanding amount of exposure held:**

Barclays Group Credit derivative product type	Own credit portfolio		Intermediation activities	
	As protection purchaser	As protection seller	As protection purchaser	As protection seller
	£m	£m	£m	£m
<b>As at 31 December 2021</b>				
Credit default swaps	<b>1,152</b>	<b>78</b>	<b>436,834</b>	<b>416,030</b>
Total return swaps	<b>639</b>	<b>167</b>	<b>6,713</b>	<b>2,154</b>
<b>Total</b>	<b>1,791</b>	<b>245</b>	<b>443,547</b>	<b>418,184</b>
<b>As at 31 December 2020</b>				
Credit default swaps	936	217	340,528	337,630
Total return swaps	165	165	11,004	1,884
<b>Total</b>	<b>1,101</b>	<b>382</b>	<b>351,532</b>	<b>339,514</b>

Notional exposures from intermediation activities, which mainly comprises derivatives to manage the trading book, increased £170.7bn to £861.7bn driven by client and trading activities.

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 79: CCR6 – Credit derivatives exposures**

This table provides a breakdown of the Barclays' exposures to credit derivatives products.

#### Barclays Group

		Credit derivative hedges		Other credit derivatives £m
		Protection bought £m	Protection sold £m	
<b>As at 31 December 2021</b>				
<b>Notionals</b>				
	Single-name credit default swaps	<b>479</b>	—	<b>323,441</b>
	Index credit default swaps	—	—	<b>530,174</b>
	Total return swaps	—	—	<b>9,673</b>
	Credit options	—	—	<b>172,683</b>
	Other credit derivatives	—	—	—
<b>Total notionals</b>		<b>479</b>	—	<b>1,035,971</b>
<b>Fair values</b>				
	<b>Positive fair value (asset)</b>	<b>4</b>	—	<b>13,608</b>
	<b>Negative fair value (liability)</b>	<b>(8)</b>	—	<b>(14,220)</b>
<b>As at 31 December 2020</b>				
<b>Notionals</b>				
	Single-name credit default swaps	388	—	307,957
	Index credit default swaps	—	—	370,967
	Total return swaps	—	—	13,218
	Credit options	—	—	62,494
	Other credit derivatives	—	—	—
<b>Total notionals</b>		<b>388</b>	—	<b>754,636</b>
<b>Fair values</b>				
	<b>Positive fair value (asset)</b>	<b>2</b>	—	<b>10,040</b>
	<b>Negative fair value (liability)</b>	<b>(12)</b>	—	<b>(10,461)</b>

Other credit derivatives notionals increased by £281.3bn to £1,036bn primarily due to client and trading activities.

## Risk and capital position review

### Analysis of counterparty credit risk continued

**Table 80: CCR8 Exposures to Central Counterparties (CCPs)**

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

Barclays Group		As at 31 December 2021		As at 31 December 2020	
		EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m
1	<b>Exposures to QCCPs (total)</b>		<b>1,601</b>		1,568
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which				
3	(i) OTC derivatives	<b>11,584</b>	<b>232</b>	9,181	184
4	(ii) Exchange-traded derivatives	<b>3,667</b>	<b>73</b>	2,343	47
5	(iii) SFTs	<b>2,954</b>	<b>59</b>	5,361	107
6	(iv) Netting sets where cross-product netting has been approved	<b>4,963</b>	<b>100</b>	1,477	30
7	Segregated initial margin	—	—	—	—
8	Non-segregated initial margin	<b>1,514</b>	—	1,633	—
9	Prefunded default fund contributions	<b>11,903</b>	<b>238</b>	13,468	269
10	Alternative calculation of own funds requirements for exposures	<b>2,416</b>	<b>1,131</b>	2,113	1,115
11	<b>Exposures to non-QCCPs (total)</b>		—		—
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	—	—	—	—
13	(i) OTC derivatives	—	—	—	—
14	(ii) Exchange-traded derivatives	—	—	—	—
15	(iii) SFTs	—	—	—	—
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	—	—	—	—

EAD post CRM for trade exposures increased by £2.4bn to £11.6bn driven by increased client and trading activities with CCPs.

## Risk and capital position review

### Analysis of counterparty credit risk continued

#### Credit valuation adjustments (CVA)

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 81: CCR2 Credit valuation adjustment (CVA) capital charge**

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: this approach requires the calculation of the charge as (a) a 10-day 99% Value at Risk (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	RWA €m
<b>Barclays Group</b>			
<b>As at 31 December 2021</b>			
1	Total portfolios subject to the Advanced Method	15,895	2,128
2	(i) VaR component (including the 3x multiplier)	—	398
3	(ii) Stressed VaR component (including the 3x multiplier)	—	1,730
4	All portfolios subject to the Standardised Method	890	320
EU4	Based on original exposure method	—	—
5	<b>Total subject to the CVA capital charge</b>	<b>16,785</b>	<b>2,448</b>
<b>As at 31 December 2020</b>			
1	Total portfolios subject to the Advanced Method	16,455	2,171
2	(i) VaR component (including the 3x multiplier)	—	706
3	(ii) Stressed VaR component (including the 3x multiplier)	—	1,465
4	All portfolios subject to the Standardised Method	832	347
EU4	Based on original exposure method	—	—
5	<b>Total subject to the CVA capital charge</b>	<b>17,287</b>	<b>2,518</b>

The CVA RWA remained broadly stable at €2.4bn (December 2020: €2.5bn).

# 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

Risk weighted assets for market risk increased by **£9.1bn** (December 2020: **£35.6bn**).

Mainly driven by

**£6.9bn**

Model adjustment to reflect market movements during the COVID-19 stress period

**£1.3bn**

Increase in trading activity

**£0.9bn**

Pillar 1 Structural FX charge partially offset by change in VaR look back period

Management Value at Risk decreased by **41%**

**-£13.0m**

Reduced risk taking, lower market volatility and the impact of a methodology update

## Risk and capital position review

# Analysis of market risk

### Balance sheet view of trading and banking books

As defined by regulatory rules, a trading book consists of positions held for trading intent or to hedge elements of the trading book. Trading intent must be evidenced in the basis of the strategies, policies and procedures set up by the firm to manage the position or portfolio. The table below provides a Group-wide overview of where assets and liabilities on the Group's balance sheet are managed within regulatory traded and non-traded books.

The balance sheet split by trading book and banking book is shown on an IFRS accounting scope of consolidation. The reconciliation between the accounting and regulatory scope of consolidation is shown in table 8 on page 20.

**Table 82: Balance sheet split by trading and banking books**

	Banking book <sup>a</sup> £m	Trading book £m	Total £m
<b>As at 31 December 2021</b>			
Cash and balances at central banks	238,574	—	238,574
Cash collateral and settlement balances	68,633	23,909	92,542
Loans and advances at amortised cost	361,451	—	361,451
Reverse repurchase agreements and other similar secured lending	3,227	—	3,227
Trading portfolio assets	4,615	142,420	147,035
Financial assets designated at fair value	11,532	180,440	191,972
Derivative financial instruments	4,790	257,782	262,572
Financial assets at fair value through other comprehensive income	61,753	—	61,753
Investments in associates and joint ventures	999	—	999
Goodwill and intangible assets	8,061	—	8,061
Property, plant and equipment	3,555	—	3,555
Current tax assets	261	—	261
Deferred tax assets	4,619	—	4,619
Retirement benefit assets	3,879	—	3,879
Other assets	3,785	—	3,785
Non-current assets classified as held for disposal	—	—	—
<b>Total assets</b>	<b>779,734</b>	<b>604,551</b>	<b>1,384,285</b>
Deposits at amortised cost	519,433	—	519,433
Cash collateral and settlement balances	55,332	24,039	79,371
Repurchase agreements and other similar secured borrowing	28,352	—	28,352
Debt securities in issue	98,867	—	98,867
Subordinated liabilities	12,759	—	12,759
Trading portfolio liabilities	658	53,511	54,169
Financial liabilities designated at fair value	3,079	247,881	250,960
Derivative financial instruments	4,759	252,124	256,883
Current tax liabilities	739	—	739
Deferred tax liabilities	37	—	37
Retirement benefit liabilities	311	—	311
Other liabilities	10,485	—	10,485
Provisions	1,688	—	1,688
Liabilities included in disposal groups classified as held for sale	20	—	20
<b>Total liabilities</b>	<b>736,519</b>	<b>577,555</b>	<b>1,314,074</b>

#### Note

<sup>a</sup> The primary risk factors for banking book assets and liabilities are interest rates and to a lesser extent, foreign exchange rates. Credit spreads and equity prices will also be factor where the Group holds debt and equity securities respectively, either as financial assets designated at fair value or as financial assets at fair value through other comprehensive income.

Included within the trading book are assets and liabilities which are included in the market risk regulatory measures. For more information on these measures (VaR, SVaR, Incremental Risk Charge (IRC) and Comprehensive risk measure) see the risk management section on pages 184 and 185.



## Risk and capital position review

### Analysis of market risk continued

#### Traded market risk review

##### Review of management measures

The following disclosures provide details on market risk management measures. See the risk management section on page 182 for more detail on management measures and the differences with regulatory measures.

The table below shows the total management VaR on a diversified basis by risk factor. Total management VaR includes all trading positions in CIB and Treasury and it is calculated with a one-day holding period.

Limits are applied against each risk factor VaR as well as total management VaR, which are then cascaded further by risk managers to each business.

**Table 83: The daily average, maximum and minimum values of management VaR**

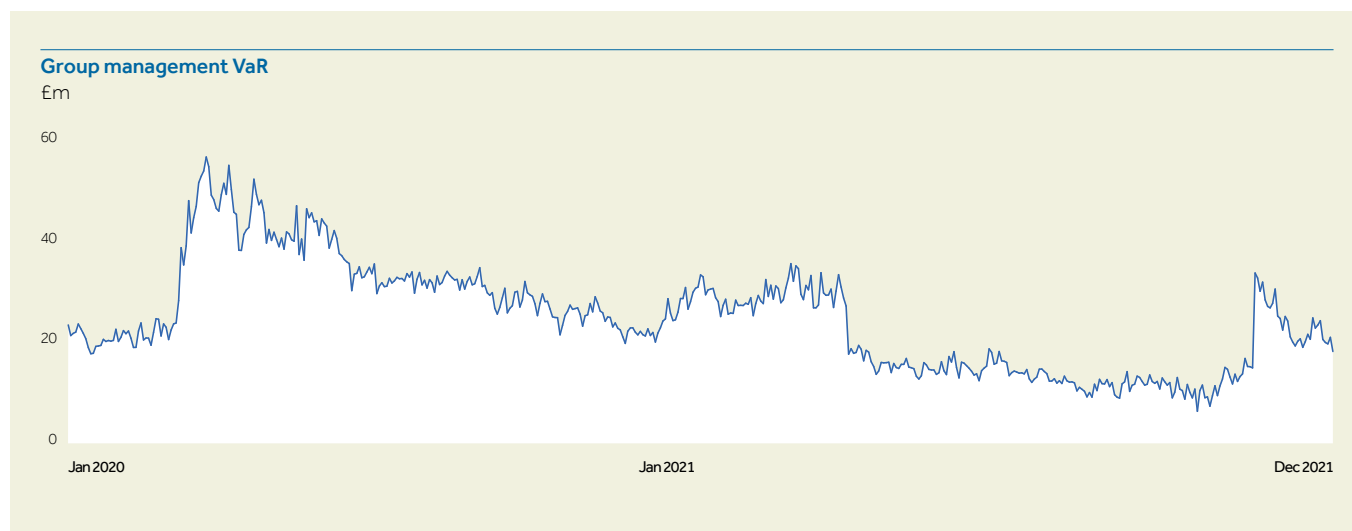
##### Management VaR (95%, one day)

	2021			2020		
	Average €m	High <sup>a</sup> €m	Low <sup>a</sup> €m	Average €m	High <sup>a</sup> €m	Low <sup>a</sup> €m
<b>For the year ended 31 December</b>						
Credit risk	14	30	7	20	38	10
Interest rate risk	7	15	4	10	17	6
Equity risk	9	29	4	13	35	6
Basis risk	6	10	3	10	16	7
Spread risk	4	6	3	5	9	3
Foreign exchange risk	4	16	1	5	7	2
Commodity risk	—	1	—	1	1	—
Inflation risk	3	5	2	2	3	1
Diversification effect <sup>a</sup>	(28)	n/a	n/a	(34)	n/a	n/a
<b>Total management VaR</b>	<b>19</b>	<b>36</b>	<b>6</b>	<b>32</b>	<b>57</b>	<b>18</b>

##### Note

a Diversification effects recognise that forecast losses from different assets or businesses are unlikely to occur concurrently, hence the expected aggregate loss is lower than the sum of the expected losses from each area. Historical correlations between losses are taken into account in making these assessments. The high and low VaR figures reported for each category did not necessarily occur on the same day as the high and low VaR reported as a whole. Consequently, a diversification effect balance for the high and low VaR figures would not be meaningful and is therefore omitted from the above table.

Average Management VaR decreased by 41% to €19m in 2021 (2020: €32m), driven by reduced risk taking, lower market volatility and the impact of a methodology update in March 2021 which changed the historical lookback period of the VaR model from two years to one year. The methodology change has increased the responsiveness of the model to changes over time in volatility levels in the lookback period.



## Risk and capital position review

### 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 2021, 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 regulatory measures of market risk. Refer to pages 183 and 184 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 Comprehensive Risk Measure (CRM) as required
- 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 86 "Market risk own funds requirements", on page 130 for a breakdown of capital requirements by approach.

**Table 84: MR3 - Analysis of Regulatory VaR, SVaR, IRC and CRM**

	Year-end €m	Avg. €m	Max €m	Min €m
<b>As at 31 December 2021</b>				
Regulatory VaR- 1 day	<b>34</b>	<b>35</b>	<b>64</b>	<b>18</b>
Regulatory VaR- 10 day <sup>a</sup>	<b>108</b>	<b>111</b>	<b>204</b>	<b>58</b>
SVaR - 1 day	<b>58</b>	<b>63</b>	<b>116</b>	<b>47</b>
SVaR - 10 day <sup>a</sup>	<b>184</b>	<b>200</b>	<b>365</b>	<b>149</b>
IRC	<b>278</b>	<b>329</b>	<b>544</b>	<b>217</b>
CRM	—	—	—	—
<b>As at 31 December 2020</b>				
Regulatory VaR- 1 day	39	56	111	24
Regulatory VaR- 10 day <sup>a</sup>	123	178	352	75
SVaR - 1 day	91	90	152	62
SVaR - 10 day <sup>a</sup>	288	285	481	195
IRC	378	206	391	112
CRM	—	—	—	—

#### Note

<sup>a</sup> 10-day VaR results reported above are based on 1-day VaR multiplied by the square root of 10. For SVaR, following a recalibration of the SVaR period to the COVID-19 stress period, Barclays has taken a post-model adjustment for RWA reporting purposes to capture the incremental risk associated with 10-day SVaR over and above that obtained by scaling 1-day SVaR by the square root of 10. See Table 88: MR2-A for details.

Average VaR and SVaR decreased and IRC increased in 2021:

- Regulatory VaR: driven by reduced risk taking, lower market volatility and the impact of a methodology update in March 2021 which changed the historical lookback period of the VaR model from two years to one year. The methodology change has increased the responsiveness of the model to changes over time in volatility levels in the lookback period.
- Regulatory SVaR: decreased principally due to reduced risk taking in Cross Markets.
- IRC: increased due to higher default exposure in the FI Credit and Rates businesses.

## Risk and capital position review

### Analysis of market risk continued

**Table 85: Breakdown of the major regulatory risk measures by portfolio**

	Macro	Equities	Credit	BI Treasury	Banking	Barclays Group Treasury	Cross Markets	Securitised Products	Fixed Income Financing
	£m	£m	£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2021</b>									
Regulatory VaR- 1 day	17	19	14	—	5	2	14	2	1
Regulatory VaR - 10 day	53	61	44	—	15	6	44	6	3
SVaR- 1 day	35	40	40	—	5	3	30	7	6
SVaR- 10 day	111	126	126	—	16	9	94	23	18
IRC	224	72	505	—	—	—	17	10	1
CRM	—	—	—	—	—	—	—	—	—
<b>As at 31 December 2020</b>									
Regulatory VaR- 1 day	15	29	42	—	1	5	38	4	2
Regulatory VaR - 10 day	47	90	132	—	4	15	119	11	7
SVaR- 1 day	35	31	47	—	1	9	49	6	6
SVaR- 10 day	112	99	148	1	3	28	155	20	20
IRC	208	26	568	—	1	—	26	10	4
CRM	—	—	—	—	—	—	—	—	—

The table above shows the primary portfolios which are driving the trading businesses' modelled capital requirement as at 2021 year-end. The standalone portfolio results diversify at the total level and are not additive. Regulatory VaR, SVaR, IRC and CRM in the prior table show the diversified results at a Group level.

## Risk and capital position review

### Analysis of market risk continued

#### Capital requirements for market risk

The table below shows the elements of capital requirements and risk weighted assets under the market risk framework as defined in the CRR. The Group is required to hold capital for the market risk exposures arising from regulatory trading books. Inputs for the modelled components include the measures on table 84, using the higher of the end of period value or an average over the past 60 days (times a multiplier in the case of VaR and SVaR).

**Table 86: Market risk own funds requirements**

##### Barclays Group

	RWA		Capital requirements	
	As at 31 December 2021	As at 31 December 2020	As at 31 December 2021	As at 31 December 2020
	€m	€m	€m	€m
1 <b>Internal models approach</b>	<b>27,365</b>	22,434	<b>2,189</b>	1,795
2 VaR	<b>4,476</b>	5,126	<b>358</b>	410
3 SVaR	<b>13,750</b>	9,037	<b>1,100</b>	723
4 Incremental risk charge	<b>4,113</b>	4,671	<b>329</b>	374
5 Comprehensive risk measure	—	—	—	—
6 Risks not in VaR	<b>5,026</b>	3,600	<b>402</b>	288
7 <b>Standardised approach</b>	<b>17,406</b>	13,195	<b>1,392</b>	1,055
8 Interest rate risk (general and specific)	<b>6,068</b>	5,669	<b>485</b>	453
9 Equity risk (general and specific)	<b>5,110</b>	4,072	<b>409</b>	326
10 Foreign exchange risk	<b>2,710</b>	437	<b>217</b>	35
11 Commodity risk	—	—	—	—
12 Specific interest rate risk of securitisation position	<b>3,518</b>	3,017	<b>281</b>	241
13 <b>Total</b>	<b>44,771</b>	35,629	<b>3,581</b>	2,850

Overall market risk RWAs increased €9.1bn to €44.8bn.

Refer to tables 87 and 88 for detailed movement analysis on the standardised approach and internal models approach.

**Table 86a: Market risk own funds requirements for significant subsidiary**

##### Barclays Bank PLC

	RWA		Capital Requirements	
	As at 31 December 2021	As at 31 December 2020	As at 31 December 2021	As at 31 December 2020
	€m	€m	€m	€m
1 <b>Internal models approach</b>	<b>26,588</b>	20,353	<b>2,127</b>	1,628
2 VaR	<b>3,776</b>	4,860	<b>302</b>	389
3 SVaR	<b>14,005</b>	7,783	<b>1,120</b>	622
4 Incremental risk charge	<b>4,209</b>	4,711	<b>337</b>	377
5 Comprehensive risk measure	—	—	—	—
6 Risks not in VaR	<b>4,598</b>	2,999	<b>368</b>	240
7 <b>Standardised approach</b>	<b>8,239</b>	6,175	<b>659</b>	494
8 Interest rate risk (general and specific)	<b>3,544</b>	3,592	<b>283</b>	287
9 Equity risk (general and specific)	<b>2,037</b>	1,585	<b>163</b>	127
10 Foreign exchange risk	<b>1,364</b>	42	<b>109</b>	3
11 Commodity risk	—	—	—	—
12 Specific interest rate risk of securitisation position	<b>1,294</b>	956	<b>104</b>	77
13 <b>Total</b>	<b>34,827</b>	26,528	<b>2,786</b>	2,122

## Risk and capital position review

### Analysis of market risk continued

**Table 87: MR1 – Market risk under 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.

		RWA		Capital Requirements	
		As at 31 December 2021	As at 31 December 2020	As at 31 December 2021	As at 31 December 2020
		£m	£m	£m	£m
<b>Barclays Group</b>					
<b>Outright products</b>					
1	Interest rate risk (general and specific)	6,068	5,669	485	453
2	Equity risk (general and specific)	3,750	2,992	300	240
3	Foreign exchange risk	2,710	437	217	35
4	Commodity risk	—	—	—	—
<b>Options</b>					
5	Simplified approach	—	—	—	—
6	Delta-plus method	1,166	868	93	69
7	Scenario approach	194	212	16	17
8	Securitisation (specific risk)	3,518	3,017	281	241
9	<b>Total</b>	<b>17,406</b>	<b>13,195</b>	<b>1,392</b>	<b>1,055</b>

Standardised market risk RWAs increased £4.2bn to £17.4bn primarily driven by the application of a Pillar 1 Structural FX charge and increased trading activity.

**Table 88: MR2-A – Market risk under internal models approach**

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.

		RWA		Capital Requirements	
		As at 31 December 2021	As at 31 December 2020	As at 31 December 2021	As at 31 December 2020
		£m	£m	£m	£m
<b>Barclays Group</b>					
1	<b>VaR (higher of values a and b)</b>	<b>4,476</b>	5,126	<b>358</b>	410
(a)	Previous day's VaR (Article 365(1) (VaRt-1))			<b>168</b>	180
(b)	Average of the daily VaR (Article 365(1)) on each of the preceding sixty business days (VaRavg) x multiplication factor (mc) in accordance with Article 366			<b>358</b>	410
2	<b>SVaR (higher of values a and b)</b>	<b>13,750</b>	9,037	<b>1,100</b>	723
	Latest SVaR (Article 365(2) (sVaRt-1))			<b>849</b>	390
	Average of the SVaR (Article 365(2) of the CRR) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366 of the CRR)			<b>1,100</b>	723
3	<b>Incremental risk charge –IRC (higher of values a and b)</b>	<b>4,113</b>	4,671	<b>329</b>	374
	Most recent IRC value (incremental default and migration risks section 3 calculated in accordance with articles 370/374)			<b>329</b>	374
	Average of the IRC number over the preceding 12 weeks			<b>314</b>	273
4	<b>Comprehensive Risk Measure – CRM (higher of values a, b and c)</b>	—	—	—	—
	Most recent risk number for the correlation trading portfolio (article 377)			—	—
	Average of the risk number for the correlation trading portfolio over the preceding 12-weeks			—	—
	8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4))			—	—
5	Other	5,026	3,600	402	288
6	<b>Total</b>	<b>27,365</b>	<b>22,434</b>	<b>2,189</b>	<b>1,795</b>

Modelled market risk RWAs increased £4.9bn to £27.4bn primarily driven by:

- SVaR increased £4.7bn driven by a post model adjustment (PMA) of £6.9bn to reflect market movements during the COVID-19 stress period following recalibration of the period. The PMA captures the incremental risk associated with 10-day SVaR over and above that obtained by scaling 1-day SVaR RWAs by the square root of 10.
- VaR decreased £0.7bn primarily due to a methodology update which changed the historical lookback period of the VaR model from two years to one year.

# Analysis of securitisation exposures

This section shows the credit, counterparty credit and market risk arising from securitisation positions. These are already included in previous related sections.

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

- Securitisation RWAs have remained relatively flat year on year.



## Risk and capital position review

# Analysis of securitisation exposures

For regulatory disclosure purposes, 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 on-going life of the transaction or scheme. Such transactions or schemes are undertaken for a variety of reasons including the transfer of risk for Barclays or on behalf of a client.

The following tables detail positions from securitisation transactions entered into by the Group and cover banking and trading book exposures. Only transactions that achieved significant risk transfer (SRT) are included in these tables. Where securitisations do not achieve SRT (for instance when they are entered into for funding purposes), the associated exposures are presented alongside the rest of the banking book or trading book positions in other sections of the Pillar 3 report.

Please see page 189 for further details on Barclays' approach to managing risks associated with securitisation activities.

Barclays completes the Pillar 3 disclosures in accordance with the Basel framework and CRD IV which prescribes minimum disclosure requirements. The following quantitative disclosures are not applicable or result in a nil return for the current and prior reporting period;

- Securitised facilities subject to an early amortisation period - there were no securitisation positions backed by revolving credit exposures, where Barclays acted as the originator and capital relief was sought.
- Re-securitisation exposures subject to hedging insurance or involving financial guarantors – there were no such exposures in the current or prior reporting period.

## Barclays PLC Balance sheet – summary versus regulatory view for securitisation positions

Table 8 shows a reconciliation between Barclays PLC balance sheet for statutory purposes versus a regulatory view. Specifically, for securitisation positions, the regulatory balance sheet differs from the statutory balance sheet due to the following:

- Deconsolidation of certain securitisation entities that are consolidated for accounting purposes, but not for regulatory purposes (refer to page 192 for a summary of accounting policies for securitisation activities)
- Securitised positions are treated in accordance with the Group's accounting policies, as set out in the Barclays PLC Annual Report 2021. Securitisation balances will therefore be disclosed in the relevant asset classification according to their accounting treatment
- Some securitisation positions are considered to be off balance sheet and relate to undrawn liquidity lines to securitisation vehicles, market risk derivative positions and where Barclays is a swap provider to a Special Purpose Vehicle (SPV). These balances are disclosed in table 93.

## Risk and capital position review

### Analysis of securitisation exposures continued

#### Location of securitisation risk disclosures

As securitisation positions are subject to a distinct regulatory framework, additional securitisation disclosures are provided separate to the credit, counterparty and market risk disclosures.

This table shows a reconciliation of securitisation positions in the following section and where the balances can be found in the relevant credit, counterparty and market risk sections.

**Table 89: Reconciliation of positions and capital requirements relating to securitisations**

#### Barclays Group

	Table number in this document	Exposure value	RWAs	Capital requirement
	€m	€m	€m	€m
<b>As at 31 December 2021</b>				
<b>Banking Book</b>				
<b>Standardised approach</b>				
Credit risk	<b>Table 32</b>	<b>22,890</b>	<b>4,110</b>	<b>329</b>
Counterparty credit risk		<b>80</b>	<b>77</b>	<b>6</b>
<b>Total standardised approach</b>		<b>22,970</b>	<b>4,187</b>	<b>335</b>
<b>Advanced IRB</b>				
Credit risk	<b>Table 32</b>	<b>42,034</b>	<b>7,937</b>	<b>635</b>
Counterparty credit risk	<b>Table 69</b>	—	—	—
Subject to capital deductions		—	—	—
<b>Total IRB approach</b>		<b>42,034</b>	<b>7,937</b>	<b>635</b>
<b>Total banking book</b>		<b>65,004</b>	<b>12,124</b>	<b>970</b>
<b>Trading book</b>				
<b>Trading book - specific interest rate market risk</b>				
Standardised approach	<b>Table 86</b>	<b>1,827</b>	<b>3,518</b>	<b>281</b>
Capital deductions		—	—	—
<b>Total trading book</b>		<b>1,827</b>	<b>3,518</b>	<b>281</b>



## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 90: Securitisation activity during the year**

This table discloses a summary of the securitisation activity during 2021, including the amount of exposures securitised and recognised gain or loss on sale in the banking book and trading book. Barclays is involved in the origination of traditional and synthetic securitisations. A securitisation is considered to be synthetic where the transfer of risk is achieved through the use of credit derivatives or guarantees and the exposure remains on Barclays' balance sheet. A securitisation is considered to be traditional where the transfer of risk is achieved through the actual transfer of exposures to a SPV.

#### Barclays Group

	Banking book				Trading book			
	Traditional £m	Synthetic £m	Total banking book £m	Gain/loss on sale £m	Traditional £m	Synthetic £m	Total trading book £m	Gain/loss on sale £m
<b>As at 31 December 2021</b>								
<b>Originator</b>								
Residential Mortgages	2,858	—	2,858	5	—	—	—	—
Commercial Mortgages	5,622	—	5,622	49	—	—	—	—
Credit Card Receivables	—	—	—	—	—	—	—	—
Leasing	—	—	—	—	—	—	—	—
Loans to Corporates or SMEs	—	18,390	18,390	—	—	—	—	—
Consumer Loans	—	—	—	—	—	—	—	—
Trade Receivables	—	—	—	—	—	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—	—	—
Other Assets	—	2,000	2,000	—	—	—	—	—
<b>Total</b>	<b>8,480</b>	<b>20,390</b>	<b>28,870</b>	<b>54</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>As at 31 December 2020</b>								
<b>Originator</b>								
Residential Mortgages	953	—	953	6	—	—	—	—
Commercial Mortgages	2,320	—	2,320	39	—	—	—	—
Credit Card Receivables	—	—	—	—	—	—	—	—
Leasing	—	—	—	—	—	—	—	—
Loans to Corporates or SMEs	—	2,357	2,357	—	—	—	—	—
Consumer Loans	1,795	—	1,795	(32)	—	—	—	—
Trade Receivables	—	—	—	—	—	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—	—	—
Other Assets	—	2,071	2,071	—	—	—	—	—
<b>Total</b>	<b>5,068</b>	<b>4,428</b>	<b>9,496</b>	<b>13</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

The value of assets securitised in the banking book increased £19.4bn to £28.9bn due to:

#### Traditional

- Barclays originated £2.9bn of Residential Mortgages, £5.6bn of Commercial Mortgages securitisations in 2021.

#### Synthetic

- Barclays originated £18.4bn Loans to Corporates or SMEs and £2bn Social housing securitisation classified under Other Assets where Barclays retains the senior tranches.

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 91: Assets awaiting securitisation**

This table discloses the value of assets held on the balance sheet as at 31 December 2021 and awaiting securitisation.

Exposure Type	Banking Book £m	Trading Book £m
<b>Barclays Group</b>		
<b>As at 31 December 2021</b>		
<b>Originator</b>		
Residential Mortgages	59	—
Commercial Mortgages	1,615	—
Credit Card Receivables	—	—
Leasing	—	—
Loans to Corporates or SMEs	—	—
Consumer Loans	490	—
Trade Receivables	—	—
Securitisations/Re-securitisations	—	—
Other Assets	—	—
<b>Total</b>	<b>2,164</b>	<b>—</b>
<b>As at 31 December 2020</b>		
<b>Originator</b>		
Residential Mortgages	—	—
Commercial Mortgages	794	—
Credit Card Receivables	—	—
Leasing	—	—
Loans to Corporates or SMEs	3,662	—
Consumer Loans	488	—
Trade Receivables	—	—
Securitisations/Re-securitisations	—	—
Other Assets	1,938	—
<b>Total</b>	<b>6,882</b>	<b>—</b>

Barclays plans to originate £1.6bn Commercial Mortgages and £0.5bn Consumer Loans. As at 31st December 2021, these programmes are pending execution.

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 92: Outstanding amount of exposures securitised - asset values and impairment charges**

This table presents the asset values and impairment charges relating to securitisation programmes where Barclays is the originator or sponsor. For programmes where Barclays contributed assets to a securitisation alongside third parties, the amount shown represents the entire asset pool.

Barclays is considered a sponsor of three multi-seller asset-backed commercial paper (ABCP) conduits, Sheffield Receivables Corporation, Salisbury Receivables Corporation and Sunderland Receivables Corporation. Please note that table 92 will not reconcile to table 90, as table 92 shows outstanding amount of exposure for the positions held or retained by Barclays, whilst table 90 shows the total positions originated by Barclays in 2021.

#### Barclays Group

	Banking book			Trading Book		
	Traditional £m	Synthetic £m	Total banking book £m	Of which past due £m	Recognised losses £m	Traditional £m
<b>As at 31 December 2021</b>						
<b>Originator</b>						
Residential Mortgages	5,266	—	5,266	66	—	—
Commercial Mortgages	439	420	859	—	—	—
Credit Card Receivables	—	—	—	—	—	—
Leasing	—	—	—	—	—	—
Loans to Corporates or SMEs	—	40,398	40,398	447	—	—
Consumer Loans	—	—	—	—	—	—
Trade Receivables	—	—	—	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	—	4,071	4,071	—	—	—
<b>Total (Originator)</b>	<b>5,705</b>	<b>44,889</b>	<b>50,594</b>	<b>513</b>	<b>—</b>	<b>—</b>
<b>Sponsor</b>						
Residential Mortgages	1,263	—	1,263	—	—	—
Commercial Mortgages	—	—	—	—	—	—
Credit Card Receivables	1,335	—	1,335	2	—	—
Leasing	909	—	909	—	—	—
Loans to Corporates or SMEs	206	—	206	—	—	—
Consumer Loans	2,365	—	2,365	20	—	—
Trade Receivables	278	—	278	16	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	723	—	723	—	—	—
<b>Total (Sponsor)</b>	<b>7,079</b>	<b>—</b>	<b>7,079</b>	<b>38</b>	<b>—</b>	<b>—</b>
<b>Total</b>	<b>12,784</b>	<b>44,889</b>	<b>57,673</b>	<b>551</b>	<b>—</b>	<b>—</b>

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 92: Outstanding amount of exposures securitised - asset values and impairment charges - continued**

Barclays Group	Banking book			Trading Book		
	Traditional £m	Synthetic £m	Total banking book £m	Of which past due £m	Recognised losses £m	Traditional £m
<b>As at 31 December 2020</b>						
<b>Originator</b>						
Residential Mortgages	4,056	—	4,056	88	—	—
Commercial Mortgages	27	1,050	1,077	—	—	—
Credit Card Receivables	—	—	—	—	—	—
Leasing	—	—	—	—	—	—
Loans to Corporates or SMEs	—	29,570	29,570	166	—	—
Consumer Loans	—	—	—	—	—	—
Trade Receivables	—	—	—	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	—	2,071	2,071	—	—	—
<b>Total (Originator)</b>	<b>4,083</b>	<b>32,691</b>	<b>36,774</b>	<b>254</b>	<b>—</b>	<b>—</b>
<b>Sponsor</b>						
Residential Mortgages	1,580	—	1,580	169	—	—
Commercial Mortgages	—	—	—	—	—	—
Credit Card Receivables	352	—	352	27	—	—
Leasing	920	—	920	2	—	—
Loans to Corporates or SMEs	608	—	608	3	—	—
Consumer Loans	2,552	—	2,552	26	—	—
Trade Receivables	908	—	908	3	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	293	—	293	1	—	—
<b>Total (Sponsor)</b>	<b>7,213</b>	<b>—</b>	<b>7,213</b>	<b>231</b>	<b>—</b>	<b>—</b>
<b>Total</b>	<b>11,295</b>	<b>32,691</b>	<b>43,987</b>	<b>485</b>	<b>—</b>	<b>—</b>

Banking book securitised assets where Barclays is considered to be the Originator or Sponsor increased £13.7bn to £57.7bn due to:

#### Originator

- Net increase of £13.8bn to £50.6bn primarily driven by £20.4bn increase in originated synthetic securitisation and £1.6bn increase in traditional securitisation exposure, partially offset by £8.3bn amortisation and FX movements on synthetic tranches.

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 93: Securitisation positions – by exposure class**

The table below discloses the aggregate amount of securitisation positions held, which is consistent with table 94, table 95 and table 96.

For originated positions, the table below reflects Barclays' retained positions in the securitisation programmes also disclosed in table 92. For clarity, table 92 discloses the total underlying asset value of these programmes.

For invested and sponsored positions, the table below presents the aggregate amount of positions purchased.

#### Barclays Group

	Banking book <sup>a,b</sup>				Trading Book <sup>a,b</sup>		
	Originator £m	Sponsor £m	Investor £m	Total banking Book £m	Originator £m	Investor £m	Total trading Book £m
<b>As at 31 December 2021</b>							
<b>On-balance sheet</b>							
Residential Mortgages	2,065	1	4,328	6,394	—	430	430
Commercial Mortgages	168	—	541	709	—	712	712
Credit Card Receivables	—	—	—	—	—	41	41
Leasing	—	—	618	618	—	34	34
Loans to Corporates or SMEs	36,114	—	8,218	44,332	—	400	400
Consumer Loans	—	—	468	468	—	120	120
Trade Receivables	—	—	81	81	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—	—
Other Assets	3,929	—	1,587	5,516	—	90	90
<b>Total On-balance sheet</b>	<b>42,276</b>	<b>1</b>	<b>15,841</b>	<b>58,118</b>	<b>—</b>	<b>1,827</b>	<b>1,827</b>
<b>Off-balance sheet</b>							
Residential Mortgages	—	930	337	1,267	—	—	—
Commercial Mortgages	—	—	23	23	—	—	—
Credit Card Receivables	—	731	—	731	—	—	—
Leasing	—	746	5	751	—	—	—
Loans to Corporates or SMEs	—	94	1,391	1,485	—	—	—
Consumer Loans	—	1,842	35	1,877	—	—	—
Trade Receivables	—	199	—	199	—	—	—
Securitisations/ Re-securitisations	—	—	—	—	—	—	—
Other Assets	—	538	15	553	—	—	—
<b>Total Off-balance sheet</b>	<b>—</b>	<b>5,080</b>	<b>1,806</b>	<b>6,886</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Total</b>	<b>42,276</b>	<b>5,081</b>	<b>17,647</b>	<b>65,004</b>	<b>—</b>	<b>1,827</b>	<b>1,827</b>

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 93: Securitisation positions – by exposure class - continued**

Barclays Group	Banking book <sup>a,b</sup>				Trading Book <sup>a,b</sup>		
	Originator	Sponsor	Investor	Total banking Book	Originator	Investor	Total trading Book
	£m	£m	£m	£m	£m	£m	£m
<b>As at 31 December 2020</b>							
<b>On-balance sheet</b>							
Residential Mortgages	425	2	3,111	3,538	—	484	484
Commercial Mortgages	799	—	806	1,605	—	326	326
Credit Card Receivables	—	—	—	—	—	106	106
Leasing	—	—	54	54	—	25	25
Loans to Corporates or SMEs	26,657	—	4,027	30,684	—	312	312
Consumer Loans	—	—	497	497	—	267	267
Trade Receivables	—	—	28	28	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—	—
Other Assets	1,999	—	398	2,397	—	94	94
<b>Total On-balance sheet</b>	<b>29,880</b>	<b>2</b>	<b>8,921</b>	<b>38,803</b>	<b>—</b>	<b>1,614</b>	<b>1,614</b>
<b>Off-balance sheet</b>							
Residential Mortgages	3	1,169	591	1,763	—	—	—
Commercial Mortgages	—	114	49	163	—	—	—
Credit Card Receivables	—	122	—	122	—	—	—
Leasing	—	705	115	820	—	—	—
Loans to Corporates or SMEs	—	120	2,239	2,359	—	—	—
Consumer Loans	—	2,132	261	2,393	—	—	—
Trade Receivables	—	515	20	535	—	—	—
Securitisations/ Re-securitisations	—	—	—	—	—	—	—
Other Assets	—	268	341	609	—	—	—
<b>Total Off-balance sheet</b>	<b>3</b>	<b>5,145</b>	<b>3,616</b>	<b>8,764</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Total</b>	<b>29,883</b>	<b>5,147</b>	<b>12,537</b>	<b>47,567</b>	<b>—</b>	<b>1,614</b>	<b>1,614</b>

#### Notes

a The exposure type is based on the asset class of underlying positions.

b Off balance sheet relates to liquidity lines to securitisation vehicles, market risk derivative positions and where the Group is a swap provider to an SPV.

The total amount of securitisation positions in the banking book increased £17.4bn to £65.0bn due to:

#### On-balance sheet

- Originator increased £12.4bn to £42.3bn driven by £18.8bn increase in originated synthetic securitisation and £1.7bn increase in originated traditional securitisation, partially offset by £8.1bn amortisation and FX movements on synthetic tranches.
- Investor increased £6.9bn to £15.8bn driven by business activity spread across asset categories.

#### Off-balance sheet

- Investor positions decreased £1.9bn to £6.9bn primarily driven by business & client activity.

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 94: Securitisation positions – by capital approach**

This table discloses the total exposure value and associated capital requirement of securitisation positions held by the approach adopted in accordance with the Basel framework. The 2021 disclosure incorporates Sec Internal Ratings Based approach (IRBA), Sec standardised approach (SA), Sec External Ratings Based approach (ERBA) and Sec Internal Assessment approach (IAA) in accordance with new securitisation framework. The total population is as per table 93, table 95 and table 96.

Barclays Group	Exposure values				Capital requirements			
	Originator	Sponsor	Investor	Total	Originator	Sponsor	Investor	Total
	€m	€m	€m	€m	€m	€m	€m	€m
<b>As at 31 December 2021</b>								
<b>Banking book</b>								
<b>New securitisation framework approaches</b>								
<b>(Sec IRBA, Sec SA, Sec ERBA/Sec IAA)</b>								
<= 10%	—	5	1,020	1,025	—	—	8	8
> 10% <= 20%	33,323	554	14,009	47,886	429	7	170	606
> 20% <= 50%	8,952	1	1,567	10,520	157	—	41	198
> 50% <= 100%	1	79	907	987	—	3	44	47
>100% <= 650%	—	19	133	152	—	2	15	17
> 650% < 1250%	—	—	9	9	—	—	9	9
= 1250%	—	—	—	—	—	—	—	—
Internal Assessment Approach	—	4,423	2	4,425	—	85	—	85
<b>Total IRB approach</b>	<b>40,211</b>	<b>—</b>	<b>1,823</b>	<b>42,034</b>	<b>560</b>	<b>—</b>	<b>75</b>	<b>635</b>
<b>Total standardised approach</b>	<b>2,065</b>	<b>5,081</b>	<b>15,824</b>	<b>22,970</b>	<b>26</b>	<b>97</b>	<b>212</b>	<b>335</b>
<b>Total banking book</b>	<b>42,276</b>	<b>5,081</b>	<b>17,647</b>	<b>65,004</b>	<b>586</b>	<b>97</b>	<b>287</b>	<b>970</b>
<b>Trading book</b>								
<b>New securitisation framework approaches</b>								
<b>(Sec IRBA, Sec SA, Sec ERBA/Sec IAA)</b>								
<= 10%	—	—	—	—	—	—	—	—
> 10% <= 20%	—	—	758	758	—	—	9	9
> 20% <= 50%	—	—	312	312	—	—	6	6
> 50% <= 100%	—	—	238	238	—	—	13	13
>100% <= 650%	—	—	307	307	—	—	66	66
> 650% < 1250%	—	—	105	105	—	—	81	81
= 1250%	—	—	107	107	—	—	106	106
<b>Total trading book</b>	<b>—</b>	<b>—</b>	<b>1,827</b>	<b>1,827</b>	<b>—</b>	<b>—</b>	<b>281</b>	<b>281</b>

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 94: Securitisation exposures – by capital approach - continued**
**Barclays Group**

	Exposure values				Capital requirements			
	Originator	Sponsor	Investor	Total	Originator	Sponsor	Investor	Total
	€m	€m	€m	€m	€m	€m	€m	€m
<b>As at 31 December 2020</b>								
<b>Banking book</b>								
<b>New securitisation framework approaches</b> (Sec IRBA, Sec SA, Sec ERBA/Sec IAA)								
<= 10%	—	—	1,451	1,451	—	—	11	11
> 10% <= 20%	17,366	520	6,769	24,655	212	7	84	303
> 20% <= 50%	12,468	50	1,831	14,349	262	3	41	306
> 50% <= 100%	44	2	655	701	3	—	42	45
>100% <= 650%	—	30	1,826	1,856	—	3	257	260
> 650% < 1250%	—	—	—	—	—	—	—	—
= 1250% / Look through	5	—	2	7	5	—	2	7
Internal Assessment Approach	—	4,545	3	4,548	—	80	—	80
<b>Total IRB</b>	29,449	—	3,063	32,512	470	—	294	764
<b>Total Standardised approach</b>	434	5,147	9,474	15,055	12	93	143	248
<b>Total banking book</b>	29,883	5,147	12,537	47,567	482	93	437	1,012
<b>Trading book</b>								
<b>New securitisation framework approaches</b> (Sec IRBA, Sec SA, Sec ERBA/Sec IAA)								
<= 10%	—	—	—	—	—	—	—	—
> 10% <= 20%	—	—	440	440	—	—	6	6
> 20% <= 50%	—	—	306	306	—	—	7	7
> 50% <= 100%	—	—	271	271	—	—	13	13
>100% <= 650%	—	—	453	453	—	—	86	86
> 650% < 1250%	—	—	91	91	—	—	70	70
= 1250%	—	—	53	53	—	—	59	59
<b>Total trading book</b>	—	—	1,614	1,614	—	—	241	241
<b>Risk Weighted Band</b>	<b>New securitisation Regulation (EU) 2017/2401&amp;2 S&amp;P Equivalent Rating (STS)</b>				<b>New securitisation Regulation (EU) 2017/2401&amp;2 S&amp;P Equivalent Rating (Non STS)</b>			
<= 70%	AAA to BBB- (Senior Position Only) / AAA to A (Base Case)				AAA to A- (Senior Position Only) / AAA to A+ (Base Case)			
> 70% <= 160%	BBB to BB (Senior Position Only) / AA- to BBB+ (Base Case)				BBB+ to BB (Senior Position Only) / AA+ to A- (Base Case)			
> 160% <= 280%	BB- to B (Senior Position Only) / A- to BBB- (Base Case)				BB to B+ (Senior Position Only) / A+ to BBB (Base Case)			
> 280% <= 420%	B to CCC- (Senior Position Only) / BBB- to BB+ (Base Case)				B+ to B- (Senior Position Only) / BBB to BBB- (Base Case)			
> 420% <= 860%	CCC+ to CCC- (Senior Position Only) / BB+ to B+ (Base Case)				B- to CCC- (Senior Position Only) / BBB- to BB- (Base Case)			
> 860% <= 1130%	B to B- (Base Case)				BB- to B- (Base Case)			
= 1250% / deduction	Below CCC-/Below B- (Base Case)				Below CCC-/ Below B- (Base Case)			

- Originator increased £12.4bn to £42.3bn driven by £18.8bn increase in originated synthetic securitisation and £1.7bn increase in originated traditional securitisation, partially offset by £8.1bn amortisation and FX movements on synthetic tranches.
- Investor increased £5.1bn to £17.6bn driven by business & client activity.



## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 95: Aggregate amount of securitised positions retained or purchased by geography - banking book**

This table presents total banking book securitised exposure type split by geography, based on location of the counterparty.

Exposure Type	United Kingdom	Europe	Americas	Africa and Middle	Asia	Total
	€m	€m	€m	East €m	€m	€m
<b>Barclays Group</b>						
<b>As at 31 December 2021</b>						
Residential Mortgages	5,132	1,124	1,361	—	44	7,661
Commercial Mortgages	238	372	122	—	—	732
Credit Card Receivables	—	—	731	—	—	731
Leasing	10	209	1,150	—	—	1,369
Loans to Corporates or SMEs	14,129	7,582	23,340	146	620	45,817
Consumer Loans	419	98	1,744	—	84	2,345
Trade Receivables	118	39	47	—	76	280
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	3,929	521	1,619	—	—	6,069
<b>Total</b>	<b>23,975</b>	<b>9,945</b>	<b>30,114</b>	<b>146</b>	<b>824</b>	<b>65,004</b>
<b>As at 31 December 2020</b>						
Residential Mortgages	3,570	512	1,170	—	49	5,301
Commercial Mortgages	1,430	325	—	13	—	1,768
Credit Card Receivables	—	—	122	—	—	122
Leasing	—	149	725	—	—	874
Loans to Corporates or SMEs	8,704	6,890	16,940	98	411	33,043
Consumer Loans	378	149	2,338	—	25	2,890
Trade Receivables	82	384	69	—	28	563
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	1,999	165	842	—	—	3,006
<b>Total</b>	<b>16,163</b>	<b>8,574</b>	<b>22,206</b>	<b>111</b>	<b>513</b>	<b>47,567</b>

The total amount of securitisation exposures in the banking book increased £17.4bn to £65.0bn due to:

- Increase across United Kingdom, Europe and Americas primarily driven by £18.8bn increase in originated synthetic securitisation and £5.1bn increase due to business activity partially offset by £8.1bn amortisation and FX movements on synthetic tranches

## Risk and capital position review

### Analysis of securitisation exposures continued

**Table 96: Aggregate amount of securitised positions retained or purchased by geography - trading book**

This table presents total trading book securitised exposure type by geography. The country is based on the country of operation of the issuer.

#### Exposure Type

	United Kingdom	Europe	Americas	Africa and Middle East	Asia	Total
	€m	€m	€m	€m	€m	€m
<b>Barclays Group</b>						
<b>As at 31 December 2021</b>						
Residential Mortgages	184	17	229	—	—	430
Commercial Mortgages	—	—	712	—	—	712
Credit Card Receivables	3	—	38	—	—	41
Leasing	—	—	34	—	—	34
Loans to Corporates or SMEs	—	137	263	—	—	400
Consumer Loans	3	—	117	—	—	120
Trade Receivables	—	—	—	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	—	89	1	—	—	90
<b>Total</b>	<b>190</b>	<b>243</b>	<b>1,394</b>	<b>—</b>	<b>—</b>	<b>1,827</b>
<b>As at 31 December 2020</b>						
Residential Mortgages	320	45	119	—	—	484
Commercial Mortgages	—	—	326	—	—	326
Credit Card Receivables	—	—	106	—	—	106
Leasing	—	—	25	—	—	25
Loans to Corporates or SMEs	8	95	209	—	—	312
Consumer Loans	7	—	260	—	—	267
Trade Receivables	—	—	—	—	—	—
Securitisations/Re-securitisations	—	—	—	—	—	—
Other Assets	—	91	3	—	—	94
<b>Total</b>	<b>335</b>	<b>231</b>	<b>1,048</b>	<b>—</b>	<b>—</b>	<b>1,614</b>

The total amount of securitisation positions in the trading book remained stable at €1.8bn.

# 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 2021.

## Barclays PLC applies TSA for operational risk regulatory capital purposes

### Total RWAs

£41.7bn

(2020: £40.9bn)

## Summary of performance in the period

During 2021, total operational risk losses<sup>a</sup> decreased to £157m (2020: £217m) while the number of recorded events for 2021 (2,722) increased from the level for 2020 (2,258). 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 2021

84%

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

48%

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

84%

of events by number are due to External Fraud

51%

of losses are from events aligned to External Fraud

## Risk and capital position review

# Analysis of operational risk

### Table 97: Operational risk - risk weighted assets

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 201 to 204 for information on operational risk management.

<b>Barclays Group</b>				
	Barclays UK £m	Barclays International £m	Head Office £m	Total £m
<b>As at 31 December 2021</b>				
<b>Operational Risk</b>				
Basic Indicator Approach	—	—	—	—
Standardised Approach	<b>11,022</b>	<b>31,750</b>	<b>(1,025)</b>	<b>41,747</b>
Advanced Measurement Approach	—	—	—	—
<b>Total operational risk RWAs</b>	<b>11,022</b>	<b>31,750</b>	<b>(1,025)</b>	<b>41,747</b>
<b>As at 31 December 2020</b>				
Operational Risk				
Basic Indicator Approach	—	—	—	—
Standardised Approach	11,359	30,339	(800)	40,898
Advanced Measurement Approach	—	—	—	—
<b>Total operational risk RWAs</b>	<b>11,359</b>	<b>30,339</b>	<b>(800)</b>	<b>40,898</b>

## Risk and capital position review

### Analysis of operational risk continued

#### Operational risk profile

Within operational risk, there are a large number of smaller value risk events. In 2021, 84% (2020: 78%) 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 29% (2020: 16%) 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.

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

#### Operational risk events by BASEL event category<sup>a</sup>

##### % of total risk events by count

###### Internal fraud

2021	0.0%
2020	0.2%

###### External fraud

2021	83.8%
2020	70.5%

###### Execution, delivery and process management

2021	14.3%
2020	25.2%

###### Employment practices and workplace safety

2021	0.3%
2020	1.5%

###### Damage to physical assets

2021	0.0%
2020	0.1%

###### Clients, products and business practices

2021	0.1%
2020	0.1%

###### Business disruption and system failures

2021	1.5%
2020	2.3%

##### % of total risk events by value

###### Internal fraud

2021	0.0%
2020	0.1%

###### External fraud

2021	50.5%
2020	23.4%

###### Execution, delivery and process management

2021	47.5%
2020	70.2%

###### Employment practices and workplace safety

2021	0.1%
2020	1.6%

###### Damage to physical assets

2021	0.0%
2020	0.1%

###### Clients, products and business practices

2021	0.2%
2020	0.0%

###### Business disruption and system failures

2021	1.8%
2020	4.6%

#### Note

<sup>a</sup> The data disclosed includes operational risk losses for reportable events impacting the Barclays Bank UK Group business areas, having impact of > £10,000 and excludes events that are conduct 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 are updated.

## Risk and capital position review

### Analysis of operational risk continued

- External Fraud remains the category with the highest frequency of events at 84% of total events in 2021 (2020: 71%). Impacts from events arising from External Fraud increased in 2021 to £79m (2020: £51m) and accounted for 51% of total 2021 losses (2020: 23%). In this category, high volume, low value events are driven by transactional fraud often related to debit and credit card usage.
- Execution, Delivery and Process Management impacts fell to £75m (2020: £152m) and accounted for 48% (2020: 70%) 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 also decreased to 14% of total events by volume (2020: 25%).

Investment continues to be made in improving the control environment across the Group. Particular 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.

Operational Resilience remains a key area of focus for the Group. The COVID-19 pandemic is the most severe global health emergency the World Health Organization (WHO) has ever declared. While overall, the Group has continued to prove resilient and actual losses have not materially increased due to the effects of the pandemic, the COVID-19 pandemic has caused disruption to the Group's customers, suppliers, and staff globally. The COVID-19 pandemic has reinforced our focus on resilience and the Group continues to monitor potential operational disruptions associated with both the Group's and its suppliers' transition to a Work-from-Home environment and in response to initially high market volatility. The Group continues to strengthen its resilience approach across its most important business services to improve recoverability and assurance thereof.

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 all material risks to be identified and understood (see pages 150 to 151)
- 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 151 to 152
- A discussion of how our risk management strategy is designed to foster a strong risk culture is contained on pages 154
- Pages 154 to 158 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.

## Barclays' approach to managing risks

# Risk management strategy, governance and risk culture

### Barclays Group's risk management strategy

This section introduces Barclays Group's approach to managing and identifying risks, and for fostering a strong 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 then 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 the risk management function
- 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 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 the management processes for a collection of related activities and define the associated policies used to govern them
- Policies set out principles, control objectives and other core requirements for the activities of the Group. Policies describe "what" must be done.
- Standards set out the key control requirements that describe how the requirements set out in the policy are met.

#### Segregation of duties - the "Three Lines of Defence" model

The ERMF sets out a 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, and Human Resources etc. The first line is responsible for identifying and managing the risks in which they are engaged in, developing a control framework, and escalating risk events to Risk and Compliance.
- 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, policies and standards under which first line activities shall be performed, consistent with the risk appetite of the Group, and to monitor the performance of the first line against these limits, rules and constraints. Controls for first line activities, especially those related to operational risk, will ordinarily be established by the control officers operating within the control framework of the firm. These will remain subject to supervision 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 control 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, however is subject to second line oversight with respect to operational and conduct risks.



## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

#### 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, conduct risk, reputation risk and legal risk. Note that climate risk was added in January 2022; see page 154 for more information.

Each of the principal risks is overseen by an accountable executive within the Group who is responsible 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 table below summarises the principal risks and their definitions.

#### Risk appetite

Risk appetite is defined as the level of risk which the Group is prepared to accept in the conduct of their 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.

#### 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, the Group CRO:
  - manages 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 Group and Barclays Bank UK Group);
  - is accountable for the reporting on the firm's risk positions, adherence to risk appetite and enterprise-wide risk and control to relevant stakeholders including the Board and its committees, regulators and other stakeholders;

## 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 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.
- **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 on portfolios of these two drivers.
- **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.
- **Conduct risk:** The risk of poor outcomes for, or harm to, customers, clients and markets, arising from the delivery of the Group's products and services.
- **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 Group to meet its legal obligations, including regulatory or contractual requirements.

# Barclays' approach to managing risks

## Risk management strategy, governance and risk culture continued

- has the power to identify and assign actions that need to be taken by the firm in order to comply with the ERMF and remain within the risk appetite, suspend or stop decisions as necessary, and escalate unresolved concerns directly to the Group CEO, the Chairman of the Board or any of its committees; and
- is accountable for the 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 and leads the Compliance Function across the firm. The Group Chief Compliance Officer:
  - provides oversight of conduct risk associated with regulated activities undertaken by the Group.
  - effectively manages the Group's conduct and reputation risks and escalate to the Barclays PLC Board where appropriate;
  - sets global compliance standards, and maintain robust breach reporting and whistleblowing processes; and
  - similar to Group CRO, utilise their mandate to access any part of the organisation and any information, and to bring to the attention of line and senior management or the Board, as appropriate, any situation that is of

concern from a conduct or reputation risk management perspective, or 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.
- **Group Chief Controls Officer:** The Chief Controls Officer, led by the Group Chief Controls Officer, sits in the First Line of Defence and is responsible for overseeing the practical implementation of operational, conduct 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.

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.

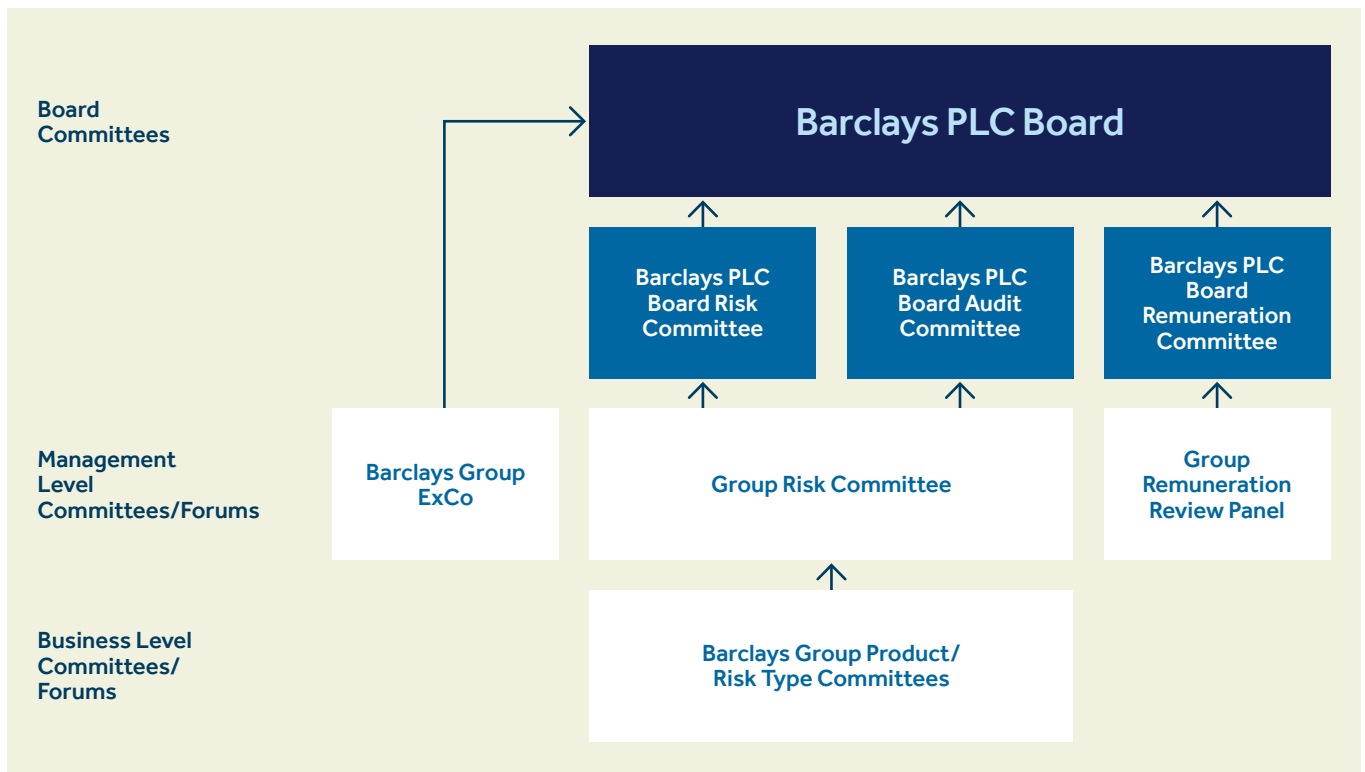
### Risk committees

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

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

### 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



## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

In addition to setting the risk appetite of the Group, the Board is responsible for approving the ERMF, and reviewing all 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, relative to the risk inherent in the portfolios, the business environment, and Barclays policies and methodologies.
- 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: <https://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, 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 Group.

#### 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 chairman. Topics that are regularly covered include:

- Risk profile
- Risk perspective on medium-term plans and strategy
- Risk appetite
- Results of stress tests
- Other technical topics, e.g. model risk.

In addition to regular topics, committees consider ad hoc papers on current risk topics, such as:

- Political events and their potential impacts on Barclays and its customers
- Economic developments in major economies or sectors
- Impacts of key market developments on the risk management of the Group.

Reports are generally presented by CROs or other accountable executives. 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 the management processes for a collection of related activities and define the associated policies used to govern them.
- Policies set out control objectives, principles and other core requirements for the activities of the Group. Policies describe "what" must be done.
- Standards set out the key control requirements that describe how the requirements set out in the policy are met.

Frameworks, policies and standards are owned by the area responsible for performing the described activity.

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 conduct 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, including inconsistencies or contradictions among them.

Frameworks, policies and standards are subject to minimum annual review, and challenge by the Risk and/or Compliance functions.

#### Assurance

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

In addition, the Risk function carry out conformance reviews to assess the implementation of, and adherence to, principal risk framework and component policies. This activity is undertaken independently of the business

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 embedding of the ERMF is monitored by executive and board committees as described above. 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.

## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

#### Learning from our mistakes

Learning from mistakes is central to Barclays' culture and values, demonstrating a commitment to excellence, service and stewardship 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 151), 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.

#### 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;
- 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 strong risk culture within the firm, with particular regard to the identification, escalation and management of risk matters, in accordance with the ERMF. 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.

#### 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 the conduct of 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.
- 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 2021, the key financial parameters are listed below.

<i>Measure relevant to strategy and risk</i>	<i>Link between strategy and risk profile</i>
Profit after tax	Fundamental performance of Barclays Group and underpins the Group's capacity to make capital distributions.
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.

Reflecting the increasing risks associated with climate change and following the Board Risk Committee's decision that climate risk would become a principal risk from 2022, a further risk appetite constraint has been introduced establishing a direct link between our strategic plans and risk appetite supporting Barclays ambition to reduce emissions to net zero by 2050.

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

## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

#### 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.

#### Mandate and scale

Mandate and scale 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 limits. The use of 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:

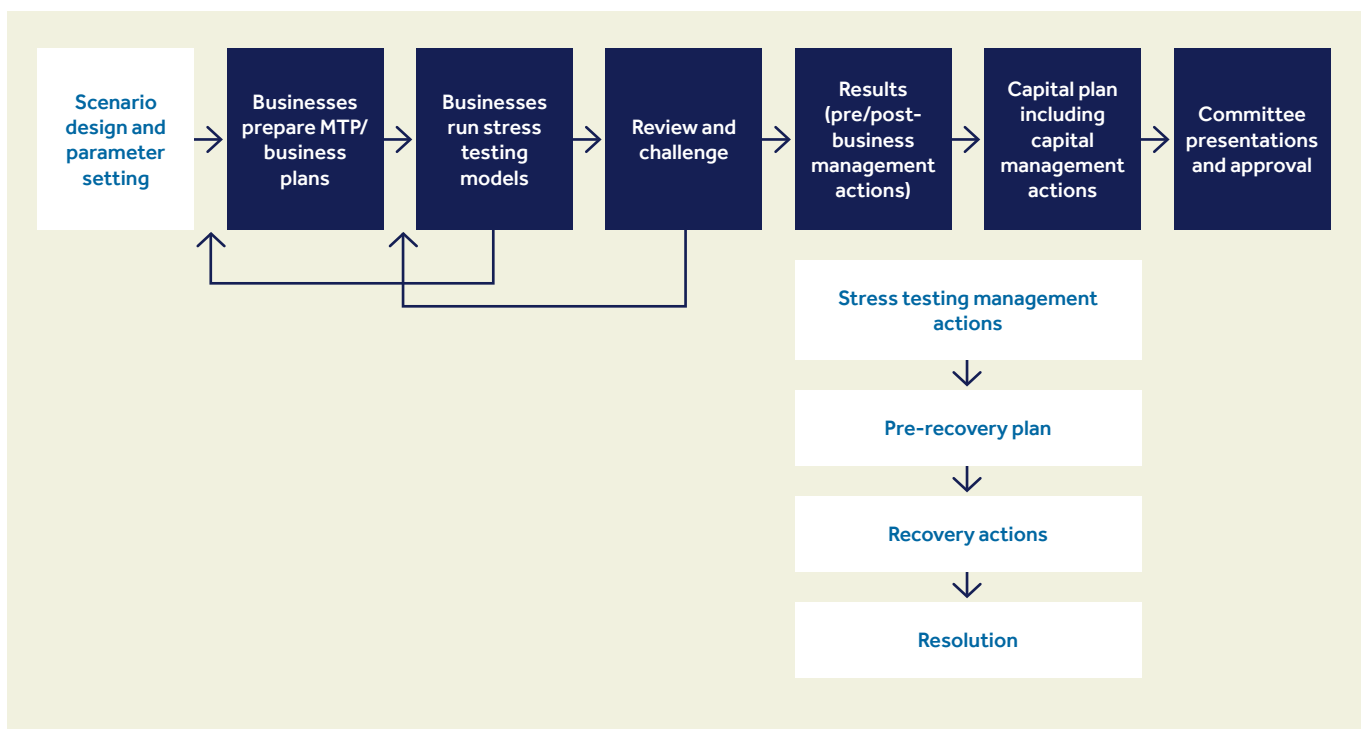
- The Group risk appetite
- Current exposure/MTP forecasts
- Risk return considerations
- Senior risk management judgement.

#### 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. 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 Group-wide stress testing process.

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.



## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

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 table below. 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.

<i>Principal Risk</i>	<i>Stress testing approach</i>
Credit risk	<ul style="list-style-type: none"> <li>■ 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</li> <li>■ 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</li> <li>■ 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.</li> </ul>
Market risk	<ul style="list-style-type: none"> <li>■ 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 positions are assumed to have a longer holding period than positions in liquid markets.</li> </ul>

## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

Principal Risk	Stress testing approach
Treasury and Capital Risk	<ul style="list-style-type: none"> <li>■ The analysis of treasury and capital risk also contributes to the estimate of stressed income and costs:</li> <li>■ Stress impact on non-interest income is primarily driven by lower projected business volumes and hence lower income from fees and commissions</li> <li>■ 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</li> <li>■ The impact on costs is mainly driven by business volumes and exchange rates with management actions to partly offset profit reductions (due to impairment increases and decreases in income) such as headcount reductions and lower performance costs.</li> </ul> <p><b>Capital Risk:</b> Capital risk is assessed by taking all modelled risk impacts as part of the stress test (as listed above) into consideration when assessing Barclays Group's ability to withstand a severe stress. The stressed results are considered against internally agreed risk appetite levels but also regulatory minima and perceived market expectations. The MTP can only be agreed by the Board if this is within the agreed risk appetite levels under stress.</p> <p>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.</p> <p><b>Liquidity Risk:</b> Liquidity risk is assessed through internal liquidity stress testing (Liquidity Risk Appetite (LRA) and regulatory stress testing of Barclays' Liquidity Coverage Ratio ("LCR"). The Bank analyses specific liquidity risk drivers such as wholesale funding and contingent funding needs based on the below scenarios:</p> <ul style="list-style-type: none"> <li>■ Barclays idiosyncratic scenario: Barclays faces a loss of market confidence while the market overall is not impacted</li> <li>■ Market wide scenario: Market-wide stress leading to increased market volatility and loss of confidence</li> <li>■ Combined scenario: A simultaneous Barclays idiosyncratic and Market wide liquidity stress scenario</li> <li>■ Long term LRA scenario: All financial institutions are impacted by a financial market-wide stress based on a prolonged global recession</li> <li>■ Liquidity Coverage Ratio: Regulatory prescribed 30-day liquidity metric.</li> </ul> <p><b>Interest Rate Risk in the Banking Book (IRRBB):</b> 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:</p> <ul style="list-style-type: none"> <li>■ 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</li> <li>■ 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.</li> </ul> <p>Risk under stress is assessed by considering:</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ 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.</li> </ul>
Operational risk	<ul style="list-style-type: none"> <li>■ 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.</li> </ul>
Model risk	<ul style="list-style-type: none"> <li>■ 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 <math>\geq 30\%</math>.</li> </ul>

## Barclays' approach to managing risks

### Risk management strategy, governance and risk culture continued

Principal Risk	Stress testing approach
Conduct risk	<ul style="list-style-type: none"> <li>Redress/Remediation: Businesses review existing provisions and include additional provisions in MTP if required.</li> <li>Litigation: Irrespective of whether a provision had been recognised, stress projections of future losses for conduct 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).</li> </ul>
Reputation risk	<ul style="list-style-type: none"> <li>Reputation risk is not quantified or stressed.</li> </ul>
Legal risk	<ul style="list-style-type: none"> <li>Legal risk is not quantified or stressed.</li> </ul>

In 2021, the internal Group-wide stress testing exercise was run as part of the MTP process, assessing the impact of a severe but plausible scenario based on the following narrative this year: stagflation scenario, i.e. negative GDP growth, high unemployment coupled with high inflation and a high base rate environment as central banks fight against inflation. Climate transition is also modelled adding inflationary pressures and disturbing the supply chain.

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. In 2021, Barclays Group ran a BoE (Bank of England) Biennial Exploratory Scenario that involved a climate stress test.

Barclays Group is also subject to stress testing by non-UK regulators which includes the European Banking Authority (EBA) and the US Federal Reserve CCAR process (which focuses on the US domiciled legal entity). For 2021, the EBA stress test first submission was in August with the final results submitted in December. CCAR 2021 was completed in H1.

#### 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 credit risk and the internal ratings-based approach

This section discusses the organisation specific to 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 160 to 168 cover the aspects of the Group's risk management framework specific to credit risk, including committees and Barclays Group's reporting structure
- As 63% of our regulatory capital is for credit risk, we devote pages 169 to 176 to detailing how we approach the internal ratings models, and how the framework supports risk differentiation and management.

## Barclays' approach to managing risks

# 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, 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 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; 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.

#### Barclays PLC Board Risk Committee

- Reviews 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 across model risk
- Monitors the Barclays Group risk profile for model risk, including emerging risks, against expected trends, and the utilisation of risk appetite



#### Group Model Management Steering Committee

- Oversees strategic modelling approaches for the development and redevelopment of in scope models
- Reviews and challenges compliance and interpretation of relevant regulations and technical standards
- Reviews the pipeline of model change proposals requiring pre-notification and post-notification to regulators
- Review of key findings from Annual Review and model performance monitoring activities focusing on models where material deficiencies have been identified
- Oversees the approach to regulatory feedback on model related matters

#### Group Model Risk Management Committee

- Reviews and monitors the model risk profile across the Bank and assesses exposures against approved tolerance
- Identifies and escalates model issues and emerging risks as appropriate
- Monitors the Model Risk Control Environment, including review and recommendation on critical and major control issues
- Reviews and challenges progress with critical Regulatory commitments and strategic initiatives

## Barclays' approach to managing risks

### 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 maintaining

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
- Raising 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. Excesses are reported to the BRC.

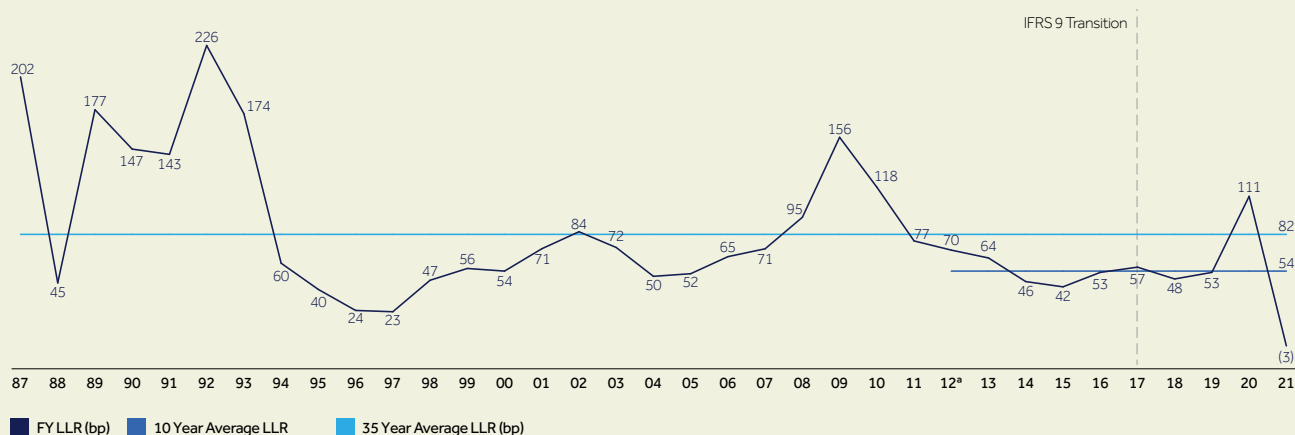
#### Monitoring performance and asset quality

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 page 228 in the Barclays PLC Annual Report 2021.

Loan loss rate (bps) – longer-term trends<sup>a,b,c</sup>  
bps



#### Notes

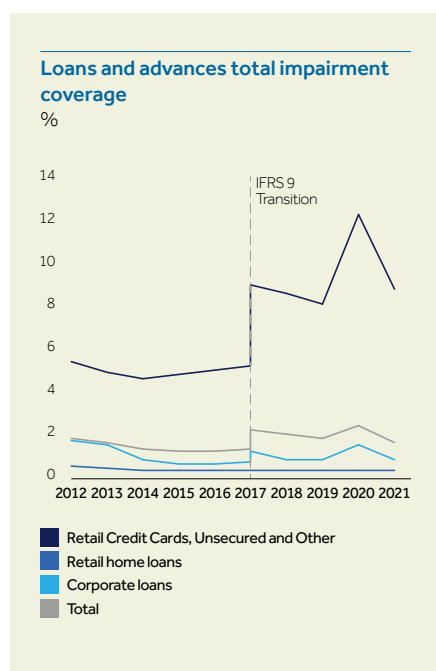
- Restated to reflect the impact of IFRS10, which results in some former Exit Quadrant exposures being recorded at fair value from 2012 onwards.
- Figures from 2015 onwards exclude BAGL.
- Impairment calculated under IFRS 9 from 2018 onwards.

## Barclays' approach to managing risks

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

#### Coverage ratios

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



Total coverage ratios will vary according to the type of product. The increase in 2017 reflects the transition to the new 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 228 in the Barclays PLC Annual Report 2021.

#### 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<sup>a</sup>

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 unlikelihood 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 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.

#### Note

- <sup>a</sup> Includes certain Business Banking facilities which are recorded as Retail for management purposes.

## Barclays' approach to managing risks

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

#### Wholesale and retail account status chart

##### Wholesale account status

#### 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 1-6¹

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



#### Charge-off (Recovery) Arrears Status 6+²

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



**Write-off: the point where it is determined that the asset is irrecoverable**

##### Notes

1. 1-4 for certain portfolios
2. 4+ for certain portfolios

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 defaulted counterparties in higher levels of WL. Their priority 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.

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

## Barclays' approach to managing risks

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

#### 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 Banking to return an account to performing status may only be taken by the credit risk team, while within the Investment Bank, the decision can only be taken by the Barclays International Watch List Committee.

#### 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 forbore 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

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 254 in the Barclays PLC Annual Report 2021.

#### 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 unsecured, 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/estate. 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 2021, total write-offs of impaired financial assets decreased slightly to £1.8bn (December 2020: £2.0bn).

## Barclays' approach to managing risks

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

#### Total write-off of impaired financial assets

£m

2021	1,836
2020	1,964
2019	1,883
2018	1,891
2017	2,329
2016	2,193
2015	2,277
2014	3,037
2013	3,343
2012	4,119
2011	5,165

#### Assessment of Impairment Under IFRS 9

Under the IFRS 9 accounting standard, businesses are required to assess and recognise Expected Credit Losses (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 expected credit losses. 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 WL 2/3, not breaching the quantitative test must be classified under Stage 2 as having SICR. Obligors on WL1 may be classified as Stage 1 for a maximum period of 6 months. In exceptional circumstances for an obligor on WL2 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:

- The missed payment is a result of a bank error or technical issue;
- 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 expected credit losses. 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.

## Barclays' approach to managing risks

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

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 expected credit losses, 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.

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; and
- 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.



## Barclays' approach to managing risks

### 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.

In line with regulatory guidance, the use of payment holidays and/or similar schemes developed specifically in response to the COVID-19 pandemic, does not necessitate reclassification of assets as forborne.

##### 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 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 (WL) for the duration of the forbearance. Counterparties placed on WL 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.

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

## Barclays' approach to managing risks

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

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 257 of the Barclays PLC Annual Report 2021.

Please see the credit risk performance section on pages 257-259 of the Barclays PLC Annual Report 2021 for details of principal Wholesale and 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 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 increases 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.

#### 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

Environmental risk is recognised as a credit risk driver and Barclays Group has a dedicated Environmental Risk Management team, as part of the Treasury, Enterprise, Credit and Climate Risk Transaction Cycle. Environmental issues are considered in credit risk assessment, and environmental risk standards are included in the Wholesale Credit Risk Control Framework.

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.

Environmental considerations affecting our clients can be varied. Barclays Group has developed a series of environmental risk briefing notes, covering ten broad industry headings ranging from agriculture and fisheries to oil and gas, from mining and metals to utilities and waste management. These briefing notes are

## Barclays' approach to managing risks

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

available to colleagues in business development and credit risk functions across the organisation, outlining the nature of environmental and social risks of which to be aware, as well as the factors which mitigate those risks.

Climate change is an increasing driver of environmental risk. More information on our approach to managing risks associated with climate change can be found on page 216 of the Barclays PLC Annual Report 2021.

#### 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.

While in the past the industry has used the terms 'Advanced', 'Foundation' and 'Slotting' IRB, the current enforcing regulation (the Capital Requirements Regulation) does not use these terms.

#### 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 21-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 44 on page 73
- **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 154
- **Impairment calculation:** under IFRS 9, ECL outputs are produced based on PD, EAD and CF IRB feeder models, with scenario and weighting. See page 166
- **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.

#### 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.

## Barclays' approach to managing risks

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

#### 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 SIRB 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 product, 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.

#### The control mechanisms for the rating system

Model risk is a risk managed under the ERMF. Consequently, Barclays Group Model Risk Policy (GMRP) 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 GMRP 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 review by the model owner and periodic validation and approval by IVU
- 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 GMRP 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.

## Barclays' approach to managing risks

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

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.

#### 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.

Table 98 for credit risk model characteristics shows modelled variables to calculate RWAs (PD, LGD, and EAD) at portfolio level, with number of models and their significance in terms of RWAs, model method or approach, numbers of years of data used, Basel asset class of the customer or client, and regulatory thresholds applied.

#### 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. Please note that the RWAs reported in this table are based on the models in production as of Nov'21.

- The portfolios associated with the PD models listed in the table account for £106bn of total AIRB approach RWAs
- The portfolios associated with the LGD models listed in the table account for £99bn of total AIRB approach RWAs

## Barclays' approach to managing risks

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

**Table 98: IRB credit risk models' selected features**

Component modelled	Portfolio	Size of associated portfolio (RWAs)		Model description and methodology	Number of years loss data	Basel asset classes measured	Applicable industry-wide regulatory thresholds
		BUK (£m)	BI (£m)				
PD	Publicly traded corporate	—	20,330	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	—	35,119	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	7,693	2,965	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	—	4,914	Statistically derived models sourced from an external vendor (Moody's RiskCalc).	> 10 Years	Corporate	PD floor of 0.03%
PD	UK Home Finance	24,924	—	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	10,145	—	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%
LGD	Corporate and Financial Institutions	—	49,660	Model based on a statistical regression that outputs a long run average LGD by estimating the expected value of recovery. Inputs include industry, seniority, instrument, collateral and country.	> 10 Years	Corporate, Financial Institutions	LGD floor of 45% based on low default portfolio criteria
LGD	All business customers (excluding certain specialized sectors)	2,324	12,110	Model is based on a function estimated using actual recoveries experience. It takes account of collateral value and an allowance for non-collateral recovery.	> 10 Years	Corporate	LGD floor of 5%
LGD	UK Home Finance	24,924	—	Data driven estimates of loss and probability of possession	6 - 10 Years	Secured By Real Estate (residential and buy-to-let mortgages)	The portfolio average downturn LGD and buy-to-let is floored at 10%
LGD	Barclaycard UK	10,145	—	Statistical models combining segmented regression and other forecasting techniques	6 - 10 Years	Qualifying Revolving Retail (QRRE)	—

## Barclays' approach to managing risks

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

#### Credit Risk IRB models performance back testing - estimated versus actual

The following tables compare the PDs and LGDs estimated by the Group's IRB models with the actual default and loss rates respectively. Comparisons are based on the assets in IRB approach portfolios 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 Group 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 through appropriately 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 and loss rates for LGD 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 205.

#### PD measures

- The model estimated PiT PDs are compared with the actual default rates by PD ranges within each IRB exposure class. PD ranges, estimated PDs and actual default rates are based on the existing models default definitions. UK Cards, UK Home Finance, UK Current Account, Barclayloan and SME are the only CRD IV compliant portfolio as of the reference month (Nov'21), for the remaining portfolios compliant models are either currently under PRA approval process or will be submitted as per the EBA IRB Repair roll out plan periodically reviewed with the PRA.
- The estimated PDs are forward-looking average PD by the model at the beginning of the twelve-month period, i.e. average PD of the Nov'20 non-defaulted obligors including inactive and non-borrowers. Both EAD weighted and simple average PDs have been reported.
- The estimated PDs are compared with the simple average of historical annual default rates over the past 5 years, starting Nov'16.
- 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), 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 is subject to under or over prediction depending on the relative position of the portfolio to the credit cycle.

- A mapping has been provided between external ratings and internal PD ranges 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 clients graded by the IRB model suite, which may include some clients that have either zero exposure or zero limits marked at the time of calculation.

#### LGD measures

- The model estimated PiT LGDs, unadjusted for regulatory floors and for downturn adjustments, are compared with the actual LGDs within each IRB exposure class.
- The estimated LGDs are derived from a simple average of LGDs at beginning of the year in which the default event occurred for the set of cases resolved over the twelve-month period (i.e., between Dec'20 to Nov'21).
- The actual LGD rate is the simple average observed loss rate for the set of cases resolved over the twelve-month period, regardless of the time of default.
- The LGD measures are used as a predicted measure in internal monitoring and annual validation of the models. The capital calculation uses Downturn LGDs with additional adjustments and regulatory floors where modelled outputs display evidence of risk understatement.

## Barclays' approach to managing risks

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

**Table 99: CR9 - Analysis of expected performance versus actual results**

This table provides an overview of credit risk model performance, assessed by the analysis of average PDs and average LGDs. Please note these tables exclude exposures calculated under the supervisory slotting approach and the straddling obligors between BUK and BI have been classified under BUK.

The table compares the raw model output to the actual experience in our portfolios. Such analysis is used to assess and enhance the adequacy and accuracy of models. The raw outputs are subject to a number of adjustments before they are used in the calculation of capital, for example to allow for the position in the credit cycle and the impact of stress on recovery rates.

Asset Class	EBA PD Range (%)	External Ratings Equivalent		Weighted Average PD %	Arithmetic Average PD by obligors %	Number of obligors		Defaulted obligors in the year	of which: new defaulted in the year	Average historical annual default %
		Moody's	S&P			As at Nov'20	As at Nov'21			
<b>Central governments or central banks</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.01%	0.04%	31	32	—	—	0.00%
	0.15 to <0.25	Baa2	BBB	0.18%	0.19%	7	4	—	—	0.00%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.00%	—%	—	2	—	—	0.00%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.00%	0.61%	3	1	—	—	0.00%
	0.75 to <2.50	Ba2,Ba3,B1	BB-,B+	1.29%	1.51%	8	9	—	—	0.00%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	6.73%	6.36%	12	10	—	—	0.00%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	0.00%	21.03%	7	9	—	—	0.00%
100.00 (default)	D	D	0.00%	0.00%	—	—	—	—	—	—
<b>Financial Institutions</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.04%	0.03%	7,823	7,604	—	—	0.00%
	0.15 to <0.25	Baa2	BBB	0.18%	0.20%	743	625	—	—	0.00%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.40%	0.43%	405	439	—	—	0.00%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.67%	0.62%	47	93	—	—	0.23%
	0.75 to <2.50	Ba2,Ba3,B1	BB,BB-,B+	1.31%	1.35%	274	250	—	—	0.10%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	5.87%	5.16%	163	125	1	—	0.69%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	12.76%	18.49%	88	68	—	—	0.00%
100.00 (default)	D	D	100.00%	100.00%	4	2	—	—	—	—
<b>Corporate</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.02%	0.06%	1,427	1,551	3	1	0.02%
	0.15 to <0.25	Baa2	BBB	0.19%	0.20%	632	635	2	2	0.19%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.36%	0.36%	670	607	1	—	0.36%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.62%	0.63%	368	363	1	—	0.62%
	0.75 to <2.50	Ba2,Ba3,B1	BB,BB-,B+	1.46%	1.39%	684	649	1	—	1.46%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	4.63%	4.71%	701	731	7	—	4.63%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	16.25%	17.96%	243	194	11	3	16.25%
100.00 (default)	D	D	100.00%	100.00%	331	291	—	—	—	100.00%
<b>SME</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.13%	0.10%	114,258	78,904	41	39	0.11%
	0.15 to <0.25	Baa2	BBB	0.21%	0.19%	178,246	42,060	1,299	1,288	0.35%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.40%	0.37%	336,248	196,521	3,048	2,995	0.49%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.62%	0.61%	155,510	158,818	3,387	3,274	0.94%
	0.75 to <2.50	Ba2,Ba3,B1	BB,BB-,B+	1.48%	1.26%	257,904	397,139	9,609	7,521	1.83%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	4.72%	4.23%	47,561	168,715	3,605	1,124	5.45%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	24.76%	26.16%	9,351	21,549	2,367	24	26.12%
100.00 (default)	D	D	100.00%	100.00%	13,305	29,309	—	—	—	—



## Barclays' approach to managing risks

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

Asset Class	EBA PD Range (%)	External Ratings Equivalent		Weighted Average PD %	Arithmetic Average PD by obligors %	Number of obligors		Defaulted obligors in the year	of which: new defaulted in the year	Average historical annual default %
		Moody's	S&P			As at Nov'20	As at Nov'21			
<b>Secured by Real Estate</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1,A2,A3,Baa1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.07%	0.08%	751,068	647,273	842	—	0.09%
	0.15 to <0.25	Baa2	BBB	0.19%	0.19%	95,208	175,702	287	—	0.23%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.34%	0.34%	38,193	71,005	213	—	0.54%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.61%	0.61%	10,702	15,741	93	—	0.92%
	0.75 to <2.50	Ba2,Ba3,B1	BB,BB-,B+	1.57%	1.48%	19,595	20,325	284	—	1.45%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	5.16%	4.90%	13,476	14,200	741	—	5.23%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	31.19%	31.91%	7,792	7,571	2,450	—	31.56%
100.00 (default)	D	D	100.00%	100.00%	14,309	14,466	—	—	—	
<b>Qualifying Revolving Retail</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1,A2,A3,Baa1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.08%	0.05%	13,077,008	13,542,081	6,122	891	0.05%
	0.15 to <0.25	Baa2	BBB	0.20%	0.19%	2,254,484	1,911,125	3,728	712	0.17%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.36%	0.36%	1,933,498	1,784,741	6,785	936	0.31%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.62%	0.61%	939,520	887,444	5,719	516	0.58%
	0.75 to <2.50	Ba2,Ba3,B1	BB,BB-,B+	1.41%	1.39%	2,036,008	1,966,148	27,563	1,027	1.35%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	4.65%	4.63%	1,072,791	850,582	52,065	458	4.82%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	28.03%	26.69%	250,889	215,521	66,166	98	25.49%
100.00 (default)	D	D	100.00%	100.00%	411,258	287,305	—	—	—	
<b>Other Retail</b>	0.00 to <0.15	Aaa,Aa1,Aa2,Aa3,A1,A2,A3,Baa1	AAA,AA+,AA,AA-,A+,A,A-,BBB+	0.11%	0.10%	34,073	75,674	35	—	0.13%
	0.15 to <0.25	Baa2	BBB	0.20%	0.20%	42,374	46,550	64	—	0.21%
	0.25 to <0.50	Baa3,Ba1	BBB-,BB+	0.38%	0.37%	89,362	89,745	253	—	0.36%
	0.50 to <0.75	Ba1,Ba2	BB+,BB	0.62%	0.62%	71,353	56,670	332	—	0.59%
	0.75 to <2.50	Ba2,Ba3,B1	BB,BB-,B+	1.43%	1.42%	215,355	146,640	2,454	—	1.42%
	2.50 to <10.00	B1,B2,B3,Caa1	B+,B,B-,CCC+	4.68%	4.67%	130,003	91,207	5,884	—	5.14%
	10.00 to <100.00	Caa2,Caa3,Ca,C	CCC,CCC+,CCC-,CC+,CC,C	28.22%	28.75%	33,995	26,310	10,003	—	28.00%
100.00 (default)	D	D	100.00%	100.00%	45,861	28,502	—	—	—	

#### Asset Class

Asset Class	Number of resolved cases over last one year (Dec'20 to Nov'21)		Predicted LGD (Simple Average)	Actual LGD (Simple Average)
	#	%		
<b>Wholesale</b>				
Investment Bank	13	25%	18%	
Corporate Bank	8	37%	26%	
SME	6,371	43%	49%	
<b>Retail</b>				
Secured by Real Estate	3,842	3%	5%	
Qualifying Revolving Retail	263,582	73%	71%	
Other Retail	29,901	64%	79%	

## Barclays' approach to managing risks

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

#### 2021 AIRB models back testing summary

Section below provides AIRB model performance summary based on the above back testing results, along with the remediation plans.

##### Wholesale

- For Investment Bank
  - 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 across PD ranges.
  - The LGD is conservative compared to the actual LGDs on PiT basis.
- For Corporate Bank
  - The Corporate Banking asset class continues to maintain low default rates across IRB exposures with estimated PiT PDs being higher (conservative) compared to actual default rates for most of the PD ranges.
  - The LGD is conservative compared to the actual LGDs on PiT basis.
  - The new Eagle LGD models will be submitted as per the EBA IRB Repair roll out plan periodically reviewed with the PRA.
  - The new Eagle PD models submitted to the PRA in Mar'21 for the material wholesale portfolios. Interim Post Model Adjustments (PMAs) are in place to mitigate any model weaknesses and compliance gaps.
- For SME
  - The back testing report is based on the CRD IV complaint models implemented in 2017. Oct'21 data has been used, due to unavailability of Nov'21 data. Historical average has been calculated using 5 years of data where Oct'16 and Oct'17 are based on proxy BUK/BI split based on Sales Turnover and Oct'18, Oct'19 and Oct'20 are based on SRP (Structural Reform Program) implemented legal identifier. LGD back testing is reported on the basis of proxy BUK/BI split and SRP implemented legal identifier.
  - The PiT PD model under-estimates the default rate at an overall level (0.94% expected vs. 2.13% actual). Default rates are increasing due to Bounce Back Loans (BBLs). BBLs began to come to term in this outcome window. This along with an issue around extension of terms and calculation of days past due (the loans booking system has a constraint in accounting for circumstances where the payment terms have changed) has resulted in an increase in default rate. As per the latest monitoring, excluding BBL, PiT PD model over-estimates the default rate.

- The LGD model under-estimates (42.51% estimated vs. 49.18% actual) on a PiT basis due to operational issues and changes that affect underlying data. Downturn LGD adds buffer on PiT LGD reducing the non-conservatism and there is additional RWA through an adjustment to further bridge the non-conservatism observed.
- The models to be revised as per the EBA IRB Repair roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to address model weaknesses.

##### 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 (0.43% expected vs. 0.50% actual). However, the TTC PD model that is used in the reported RWA calculation continues to maintain conservatism. The portfolio maintains low PiT LGD and the PiT LGD model over-estimates (0.48% estimated vs. 0.14% actual). For accounts where actual sale cost was not available, an average sale cost is used while calculating actual LGD. The low actual LGD is being driven by the drop in the number of old cases (due to Covid19 and a litigation moratorium which was in place between Mar'20-Mar'21), leading to higher proportion of cure being assigned zero actual LGD Downturn LGD adds further conservatism.
- For Italy Mortgages, the PiT PD model over-estimates the default rate for Barclays portfolio (0.83% expected vs. 0.72% actual) and Macquarie portfolio (4.88% expected vs. 2.00% actual). The PiT LGD models under-estimate for both the portfolios.
- The new set of models will be submitted for both the portfolios as per the EBA IRB Repair roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to address existing models' deficiencies for Italy.

##### Qualifying Revolving Retail

- This constitutes UK Cards, Germany Cards and UK Current Account portfolios. The estimated PDs rank order well across all 3 portfolios and at an overall level.
- For UK Cards, there is marginal under-estimation in the PiT PD model (1.62% estimated vs. 1.66% actual), however the regulatory PD remains conservative at an overall level. The reduction in default rate observed has been largely driven by various support schemes and lower spend due to Covid19. The PiT LGD model under-estimates (73.05% estimated vs. 75.68% actual), which is primarily driven by the stoppage of forward-flow debt sale in the recovery window. However, Downturn LGD used for capital calculation is conservative.
- For Germany Cards, the PiT PD model over-estimates (0.80% estimated vs. 0.56% actual) at an overall level. The over-estimation in the PiT LGD model (84.04% estimated vs. 66.56% actual) is primarily driven by debt sale at a better price.
- For UK Current Account, there is marginal over-estimation in the PiT PD model at an overall level (0.31% estimated vs. 0.30% actual). The PiT LGD model over-estimates (73.39% estimated vs. 55.66% actual).
- The new set of models will be submitted for all three portfolios as per the EBA IRB Repair roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to address existing models' deficiencies for all these three portfolios.

##### Other Retail

- This covers UK Barclayloan portfolio. The back-testing report is based on new CRD IV compliant models, approved by the PRA and implemented in Jul'19.
- The PD model over-estimates (3.21% estimated vs. 3.09% actual) on PiT basis at an overall level; rank ordering is maintained.
- The LGD model under-estimates (63.83% expected vs. 78.79% actual) on a PiT basis at an overall level. Downturn adjustment adds further buffer and continues to be within 2.5% of actual LGD.
- The new set of models will be submitted as per the EBA IRB Repair roll out plan, which is periodically reviewed with the PRA. Interim Post Model Adjustments (PMAs) are in place to account for changes in customer behavior under current pandemic.

# 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 179 a high level description of the types of counterparty credit exposures incurred in the course of Barclays' activity supplements the analytical tables in pages 109 to 124.
- Mitigation techniques specific to counterparty credit risk are also discussed.
- A more general discussion of credit risk mitigation (covering traditional credit risks) is also included from page 178.

## Barclays' approach to managing risks

# Management of credit risk mitigation techniques and counterparty credit risk

## Credit risk mitigation

The Group employs a range of techniques and strategies to actively mitigate credit risks. These 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. 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
- 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:

- 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 charges over motor vehicle and other physical assets; 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 two 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.

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 Capital Regulations Requirement (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.

## Barclays' approach to managing risks

### Management of credit risk mitigation techniques and counterparty credit risk continued

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.

#### 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 in a particular region, industry or property type exists, and portfolio limits are in place to control the level of exposure to commercial, residential, investment and development activity. See page 198 for more information on collateral, valuation and monitoring of concentrations.

## 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 including 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.

### 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 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. 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.

# 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 181 we provide an overview of the market risks we incur across Barclays Group
- The governance structure specific to market risks is discussed on pages 181 to 182.

**The rest of the section consists of traded and other risks:**

- 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 183 to 188. Measurement techniques such as VaR, are discussed, as well as techniques applied when statistical techniques are not appropriate.

# Barclays' approach to managing risks

## 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 the 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 Barclays PLC Board Risk Committee 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 standards and policies; reviewing market or regulatory issues and limits and utilisation. 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.

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.

#### Barclays PLC Board Risk Committee

- Reviews and recommends Barclays Group's risk appetite for market risk to the Barclays PLC Board
- Reviews 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 businesses

# Barclays' approach to managing risks

## 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 158 for more detail on the role of risk 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 154 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 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
<b>Management Value at Risk (VaR)</b>	An estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for one business day.
<b>Primary stress tests</b>	An estimate of the potential losses that might arise due to liquid risk factors from extreme market moves or scenarios.
<b>Secondary stress tests</b>	An estimate of the potential losses that might arise due to illiquid risk factors from extreme market moves of scenarios.
<b>Business scenario stresses</b>	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 for use 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 184) 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:

Risk factor	Description
<b>Interest rate</b>	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
<b>Foreign exchange</b>	Risk arises from changes in foreign exchange rates and volatilities
<b>Equity</b>	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.
<b>Commodity</b>	Risk arises from providing clients and investors with access to a range of commodity products on both a derivative and physical basis.
<b>Traded credit</b>	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.
<b>Securitised products</b>	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.



## Barclays' approach to managing risks

### Management of market risk continued

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.

See page 127 for a review of Management VaR.

#### 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.

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 128 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.

## Barclays' approach to managing risks

### Management of market risk continued

#### 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.

Page 338 of the annual report sets out the valuation control framework for accounting valuations and the related responsibilities of the Finance-product control valuations function and the Valuation Committee. This function and committee are also responsible for the oversight of the PVA and maintaining compliance with article 105 of the CRR.

#### 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
<b>Regulatory Value at Risk (VaR)</b>	An estimate of the potential loss arising from unfavourable market movements calibrated to 99% confidence interval and 10-day holding period.
<b>Stressed Value at Risk (SVaR)</b>	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.
<b>Incremental Risk Charge (IRC)</b>	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.
<b>Comprehensive Risk Measure (CRM)</b>	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, BBPlc Trading, BBI and BCSL. 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 Ireland (CBI) has given permission to use internal models is BBI.

#### 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 182), with the key differences listed above. The model is complemented with RNIVs, as described on page 188.

## Barclays' approach to managing risks

### Management of market risk continued

#### 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.

#### 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 100: 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; £4.5bn	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; £13.8bn	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; £4.1bn	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

## Barclays' approach to managing risks

### Management of market risk continued

#### 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.

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 2021. 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 class are key metrics in addition to asset class metrics across legal entity.

Barclays' regulatory DVaR model at the consolidated legal entity level maintained green model status throughout 2021.

Portfolios	Actual P&L		Hypo P&L	
	Total Exceptions	Status	Total Exceptions	Status
BBPlc Trading + BCSL + BBI	0	G	0	G
BBPlc Trading	0	G	2	G
BCSL	1	G	0	G
BBI	0	G	0	G
IHC	N/A	N/A	0	G

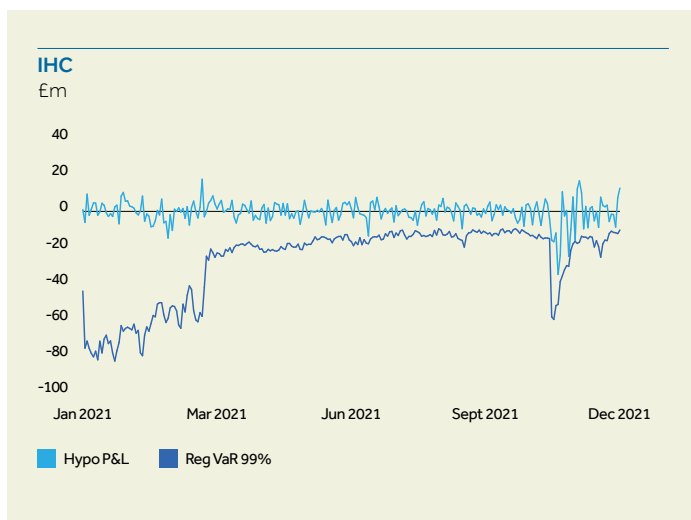
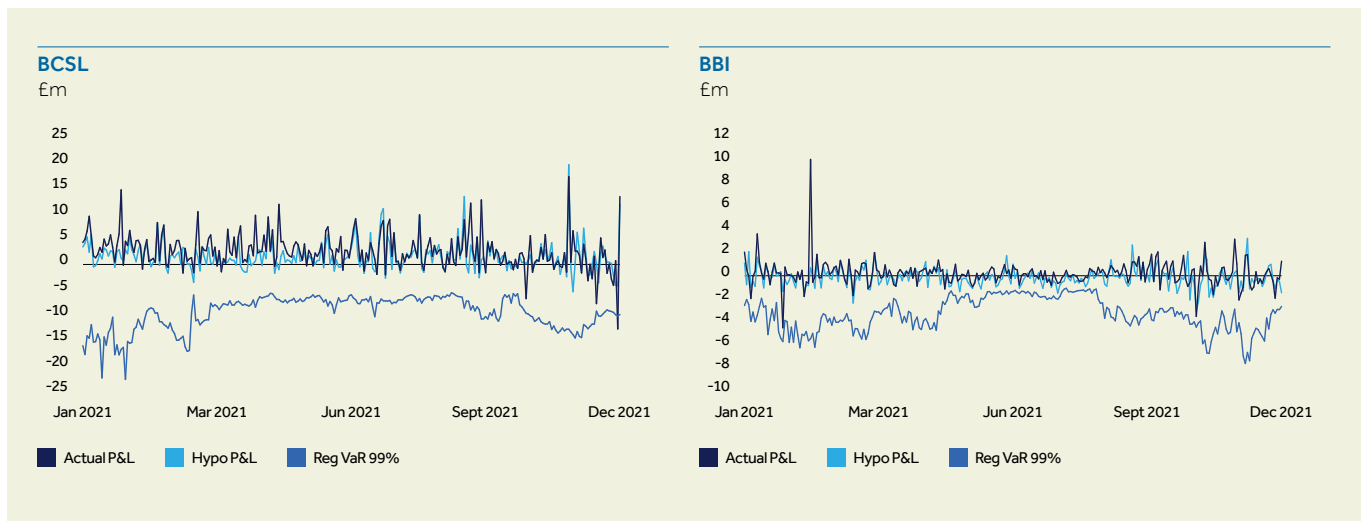
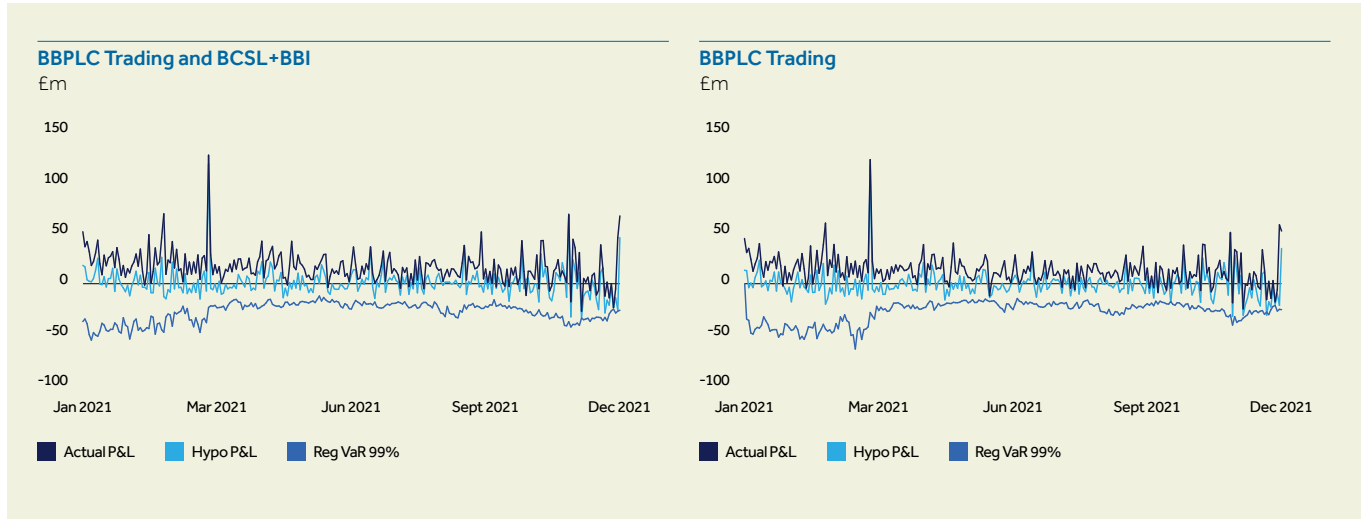
The charts below show VaR for the Group's regulatory portfolios aligned by legal entity. The dark blue and grey points on the charts indicate losses on those days on which actual and hypothetical P&L respectively exceeded the VaR amount.

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).

Exceptions are reported to internal management and regulators on a regular basis and investigated to ensure the model performs as expected.

# Barclays' approach to managing risks

## Management of market risk continued



## Barclays' approach to managing risks

### 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 2021 '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 2021, 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 190.
- A description of the risks incurred in the course of securitisation activities, and how we manage them, is contained on pages 191 to 192

## Barclays' approach to managing risks

# 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 132 to 144, 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 132 to 144) 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 Capital Requirements Regulation or 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 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 2021

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 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 to support client franchise

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).

### 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 regulatory purposes.

### Funding transactions to generate 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.



## Barclays' approach to managing risks

### Management of securitisation exposures continued

#### Risk transfer transactions

The Group has entered into synthetic and cash securitisations of corporate and commercial loans (originated in the ordinary course of business) 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, servicer 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 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.

#### Rating methodologies, ECAIs and RWA calculations

RWAs reported for securitised and re-securitised banking book and trading book assets at 31 December 2020 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.

## Barclays' approach to managing risks

### Management of securitisation exposures continued

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; and ii) exposure, or rights, to variable returns from its involvement with the entity; 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 35 in the Barclays PLC Annual Report 2021). 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 securitisation 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.

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 2021. 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.

# 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 high quality liquid assets are adequate to meet all its contractual and contingent funding obligations at all times, is discussed on pages 195 to 197.
- Capital risk, including how the risk of insufficient capital and leverage ratios and pension risk are managed, is discussed on pages 197 to 199.
- The management of Interest rate risk in the banking book is discussed on pages 199 to 200.

## Barclays' approach to managing risks

# 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

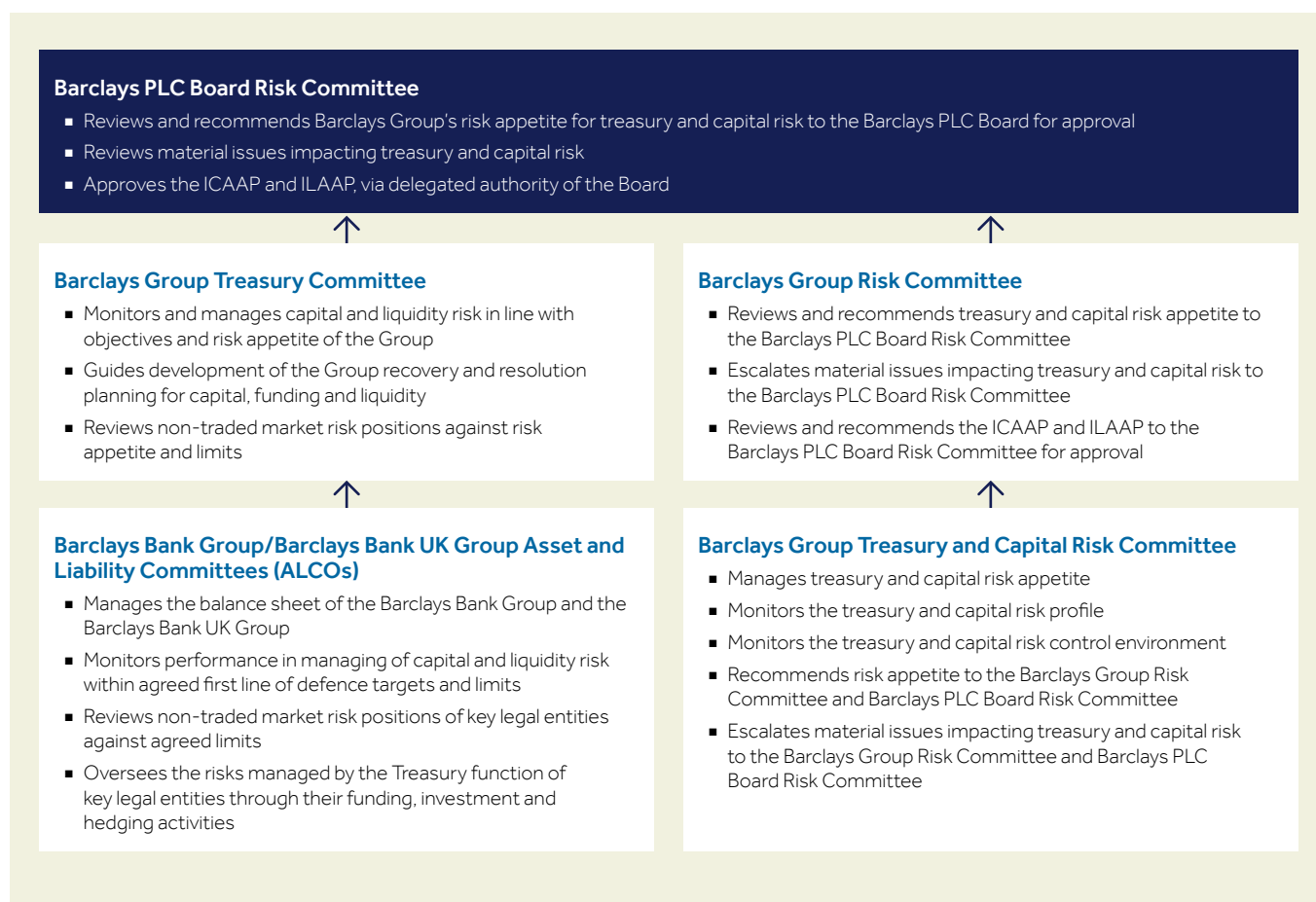
environments and stressed conditions (both actual and as defined for internal planning or regulatory testing purposes). This also includes the risk from the Group's pension plans.

**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' approach to managing risks

### 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 have 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 that are designed to control the level of liquidity risk taken and drive the appropriate mix of funds. Together, these tools reduce 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 Board Risk

Committee 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. These 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.



## Barclays' approach to managing risks

### Management of treasury and capital risk continued

#### Risk Appetite and planning

Barclays has established a Group liquidity risk appetite (LRA) stress test 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 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 LRA stress testing metrics.

The Group LRA stress test is approved by the Board. The LRA is reviewed on a continuous basis and is subject to formal review at least annually as part of the ILAAP.

Statement of LRA: For 2021, the Board has approved that the Group will maintain an amount of available liquidity resources to meet modelled

and prescribed regulatory liquidity stress outflows over a period of time (minimum buffer duration):

- 30 days in a Barclays specific stress
- 90 days in a market wide stress
- 30 days in a combined stress
- Long term LRA 12 months minimum surplus €0bn.
- LCR 30 days minimum ratio 100% (Pillar 2 basis)

#### Examples of liquidity limits

Liquidity Risk Appetite

Liquidity Coverage Ratio

Currency Risk Limits

Concentration Limits

Prime Brokerage Limits

Gross Repo Limits

Debt Buyback 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

## Barclays' approach to managing risks

### Management of treasury and capital risk continued

#### 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 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 formally invoking the GRP. The Plan would be formally invoked by the Group Board and would be overseen and executed by the Barclays Crisis Leadership Team (BCLT), a flexible committee of senior management used to respond to all types of stress events. In invoking and executing the plan, the BCLT (in consultation with the Group Board) would assess the likely impact of the stress event on the Group and its subsidiaries and determine the appropriate response given the nature and severity of the stress. 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.

#### 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 based on the internal liquidity stress test (LRA) and external regulatory requirements, namely the Liquidity Coverage Ratio (LCR). 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.

#### Capital risk management

##### Overview

Capital risk is managed through ongoing monitoring and management of the capital 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.

##### 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 2021, Barclays complied with all regulatory minimum capital requirements.

#### 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.

## Barclays' approach to managing risks

### Management of treasury and capital risk continued

#### 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.

#### 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 EBA, 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 maintain 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.



## Barclays' approach to managing risks

### Management of treasury and capital risk continued

#### 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 Pension Management Group (PMG) is accountable for the oversight and management of the Group's responsibilities relating to its pension arrangements. The PMG is accountable to the PEB.

The PEB and PMG are not created or mandated under the ERMF. However, these forums provide Risk the opportunity to discuss and comment on pension risk in a wider context with other relevant stakeholders from HR, Legal, Treasury and Finance.

#### 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 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 that net interest income could be adversely impacted by 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 that net interest income could be adversely impacted by 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 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 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 IRRBB 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 minimise 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
<b>Earnings at risk (EaR)</b>	A measure of the potential change in Net Interest Income (NII) due to an adverse interest rate movement over a predefined time horizon.
<b>Economic value of equity (EVE)</b>	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.
<b>Value at risk (VaR)</b>	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.
<b>Stress Loss</b>	A measure of the potential loss from an adverse shock to market variables

## Barclays' approach to managing risks

### Management of treasury and capital risk continued

#### Annual Earnings at Risk (AEaR)

AEaR 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.

The main model assumptions are:

- The balance sheet is kept at the current level, i.e. no growth is assumed, and run-off balances are reinvested to maintain a constant balance sheet
- Contractual positions are adjusted for an assumed behavioural profile, to align with the expected product life-cycle.

AEaR sensitivity is calculated on a monthly basis for the entire banking book, including the investments in liquid asset portfolio. 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 AEaR provides a view on the next year's earnings impacts of interest rate risk, Barclays also monitors economic value metrics to complement the view as this captures the IRRBB impact of risk exposures beyond one year.

See pages 43 and 44 for a review of AEaR in 2021.

#### Economic Value of Equity (EVE)

EVE calculates the change in the present value of the Group's expected future cash-flows from a parallel upward or downward interest rate shock. Note that the EVE calculation measures sensitivity in terms of present value, while AEaR measures income sensitivity, and as such are complimentary.

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.

#### Value at Risk (VaR)

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.

Daily VaR is used to measure residual interest and foreign exchange risks within certain banking book portfolios.

Quarterly scaled VaR is used to measure risk in the liquid asset portfolio. The calculation uses a one-year historical period, a 95% confidence level and is scaled from daily to quarterly using a constant factor.

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.

# 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 202 and 203.
- Governance, management and measurement techniques are covered on pages 203 and 204.

# Barclays' approach to managing risks

## 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 that 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 that enables business to be transacted and risk taken without exposing the Group to unacceptable potential losses or reputational damages.

### Organisation and structure

#### 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 Barclays 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.



## Barclays' approach to managing risks

### Management of operational risk continued

- **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 Barclays information is not protected against potential unauthorised access, use, modification, disruption or destruction.
- **Operational Resilience Planning Risk:** The risk that is introduced as a consequence of inadequate or ineffective (i) Front to Back Process Planning, (ii) Business Recovery Planning, or (iii) Crisis Management Planning, thereby impacting service provision to customer, clients and / or financial infrastructure.
- **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, including compliance with regulations, 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 moveable assets.
- **Strategic Investment Change Management Risk:** the risk of failing to deliver and implement the agreed initiatives, priorities and outcomes required to deliver the Group strategy, within agreed timelines. Strategic Investment Change Management Risk exists whenever there is 'change' underway.
- **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 Barclays 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 Barclays 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.

In addition to the above, operational risk encompasses risks associated with prudential regulation. This includes the risk of failing to: adhere to prudential regulatory requirements; provide regulatory submissions; or monitor and manage adherence to new prudential regulatory requirements.

These risks may result in financial and/or non-financial impacts including legal/regulatory breaches or reputational damage.

### Risk Themes

The Group also recognises that there are certain threats/risk drivers that are more thematic and have the potential to impact the Group's strategic objectives. These are risk themes which require an overarching and integrated risk management approach. Including:

- **Cyber:** The potential loss or detriment to Barclays caused by individuals or groups (threat actors) with the capabilities and intention to cause harm or to profit from attacks committed via network information systems against us, our suppliers, or customers/clients.
- **Data:** Aligned to the data strategy of the Group and encompassing data risks to the Group from multiple risk categories, including data management, data architecture, data security & protection, data resilience, data retention and data privacy.
- **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.

### 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 specific meetings which cover these items. 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 Profile Forum, the Operational 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 OR 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.

Specific reports are prepared by Operational Risk on a regular basis for the Barclays Group Risk Committee, and the Barclays PLC Board Risk Committee.

# Barclays' approach to managing risks

## Management of operational risk continued

### Operational Risk Framework

The Operational Risk Framework comprises a number of elements which allow Barclays Group to manage and measure its operational risk profile and to calculate the amount of operational risk capital that Barclays 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 Barclays 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.

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 Barclays 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 Barclays 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, Barclays Group has actually, or could have, made a loss. The definition includes situations in which Barclays 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 Barclays 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 learned report.

Barclays 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 Barclays 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 are a summary of the extreme potential risk exposures for Barclays Group covering the complete range of risks. The scenarios include an assessment of the key drivers for the exposure, occurrence and impact of the scenario and a review of the corresponding control environment. 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 internal and external loss experience, Key Risk Indicators, Risk and Control Self-Assessments 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;
- controls that seek to limit the likelihood of such an event occurring; and
- the mitigating actions that would be taken if the event were to occur (for example crisis management procedures, business continuity or disaster recovery plans).

Management then determine 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 Profile Forum, Operational Risk Committee and BRC, BAC and the Board.

#### Operational Risk Measurement

Barclays Group assesses its Operational Risk Capital requirements using the Standardised

Approach (TSA). Barclays Group also maintains a voluntary floor for the Regulatory Capital. The floor is based on the Capital calculated by Barclays Group under the previous AMA regime.

#### Insurance

As part of its risk management approach, Barclays 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.

# Barclays' approach to managing risks

## 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. Barclays Group has a dedicated Model Risk Management (MRM) function that consists of four teams: i) Independent Validation Unit (IVU), responsible for model validation and approval; ii) Model Governance (MG), responsible model risk governance, controls and reporting, including ownership of Model Risk Framework, the Group Model Risk Policy, and the associated standards (iii) Strategy and Transformation responsible for inventory, strategy, communications and business

management and (iv) 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 Center of Excellence (VCoE), which is an independent quality assurance function within MRM with the mandate to review and challenge validation outcomes.

The model risk management framework consists of the model risk policy and standards. The policy prescribes Group-wide, end-to-end requirements for the identification, measurement and management of model risk, covering model documentation, development, monitoring, annual review, independent validation and approval, change and reporting processes. The policy is supported by global standards covering model inventory, documentation, validation, complexity and materiality, testing and monitoring, overlays, risk appetite, as well as vendor models and stress testing challenger models.

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.

#### Barclays PLC Board Risk Committee

- Reviews 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 across model risk
- Monitors the Barclays Group risk profile for model risk, including emerging risks, against expected trends, and the utilisation of risk appetite



#### Group Model Management Steering Committee

- Oversees strategic modelling approaches for the development and redevelopment of in scope models
- Reviews and challenges compliance and interpretation of relevant regulations and technical standards
- Reviews the pipeline of model change proposals requiring pre-notification and post-notification to regulators
- Review of key findings from Annual Review and model performance monitoring activities focusing on models where material deficiencies have been identified
- Oversees the approach to regulatory feedback on model related matters

#### Group Model Risk Management Committee

- Reviews and monitors the model risk profile across the Bank and assesses exposures against approved tolerance
- Identifies and escalates model issues and emerging risks as appropriate
- Monitors the Model Risk Control Environment, including review and recommendation on critical and major control issues
- Reviews and challenges progress with critical Regulatory commitments and strategic initiatives



## Barclays' approach to managing risks

### 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, vendor models, and model complexity and materiality.

# Management of Conduct Risk

This section provides an overview of the management of conduct risk

- Conduct 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.

## Barclays' approach to managing risks

# Management of Conduct risk

### Conduct risk

The risk of poor outcomes for, or harm to, customers, clients and markets, arising from the delivery of the Group's Products and Services.

### Overview

The Group defines, manages and mitigates conduct risk with the objective of providing good customer and client outcomes, protecting market integrity and promoting effective competition.

Conduct Risk incorporates market integrity, customer protection, financial crime and product design and review risks.

### Organisation and structure

The governance of conduct 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 conduct risk profile. The risk committees' responsibilities include the identification and discussion of any emerging conduct risk exposures in their respective entities.

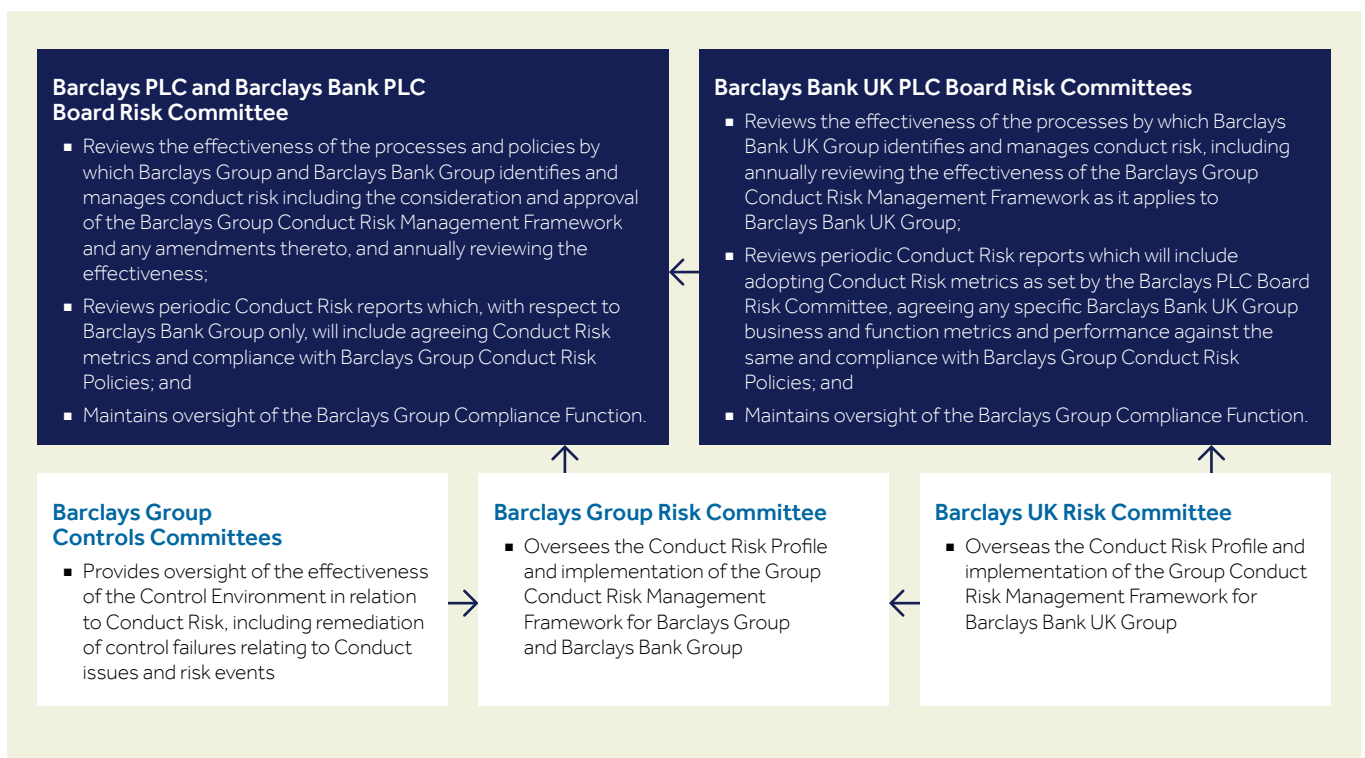
The Barclays Group and Barclays Bank Board Risk Committee and the Barclays Bank UK Group Board Risk Committee review, on behalf of their respective Boards, the management of conduct risk and the conduct risk profile for the respective entities. The Committees also safeguard the independence of, and oversee the performance of, the Group Compliance Function.

### Roles and responsibilities

The Conduct Risk Management Framework (CRMF) outlines how the Group manages and measures its conduct 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 conduct 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 controls to manage its performance and assess conformance to these policies and controls.

Senior managers are accountable within their areas of responsibility for owning and managing conduct risk in accordance with the CRMF, as defined within their regulatory Statement of Responsibilities.

Compliance, as an independent second line function, is designed to help prevent, detect and manage breaches of applicable laws, rules, regulations and procedures and has a key role in helping Barclays achieve the right conduct outcomes and evolve a conduct-focused culture.



# 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.

## Barclays' approach to managing risks

# 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 the Head of Public Policy and Corporate Responsibility is responsible for developing a reputation risk policy and associated standards, including tolerances against which data is monitored, reported on and escalated, as required.

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 the Group ExCo and Barclays PLC Board.

#### Barclays PLC Board

- Reviews the effectiveness of the processes 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 its legal obligations, including regulatory or contractual requirements.

## Barclays' approach to managing risks

# Management of legal risk

### 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.

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 primary responsibility for identifying and escalating legal risk in their area as well as responsibility for adherence to minimum 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 support from appropriate legal professionals, working in partnership to manage legal risk. 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 does not sit in any of the Three Lines of Defence but supports them all.

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, developing Group-wide risk appetite 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.

### Overview

The Group has no tolerance for wilful breaches of laws, regulations or other legal obligations.

However, 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, including the implementation of Group-wide legal risk policies requiring the engagement of legal professionals in situations that have the potential for legal risk.



# Appendices



## Appendices

# Appendix A – PD, LGD, RWA and Exposures by country

The following tables show AIRB data for countries in which Barclays is active where the AIRB RWA amount is more than 1% of the Group total for any asset class. The countries are shown in descending order of aggregated total RWAs for all asset classes.

**Table 101: PD, LGD, RWA and exposure values by country for AIRB – all asset classes**

Country	PD %	LGD %	RWA €m	Exposure €m	Country	PD %	LGD %	RWA €m	Exposure €m
United Kingdom	3.16%	25.8%	71,387	264,846	India	0.56%	49.9%	777	957
United States	1.17%	40.0%	24,516	109,890	Spain	1.57%	44.3%	562	1,424
Germany	1.59%	56.1%	2,674	9,144	Mexico	0.56%	61.3%	498	517
Italy	10.61%	26.7%	2,405	5,992	Saudi Arabia	0.07%	95.8%	443	1,994
Japan	0.06%	46.5%	2,270	14,894	Brazil	1.99%	47.0%	406	370
Canada	0.67%	43.6%	2,140	6,462	China	0.09%	47.7%	352	1,627
France	0.31%	39.3%	2,063	8,310	Singapore	0.20%	45.2%	346	6,127
Netherlands	0.79%	41.9%	1,813	4,848	Turkey	4.51%	53.7%	301	152
Ireland	1.33%	44.8%	1,680	4,976	Hong Kong	0.10%	50.9%	268	1,249
Switzerland	0.01%	45.1%	1,367	32,147	Korea, Republic Of	0.05%	45.0%	186	1,673
Cayman Islands	7.91%	46.6%	970	1,652	South Africa	0.67%	45.9%	130	169
Australia	0.14%	46.6%	954	3,501	Venezuela, Bolivarian	0.06%	45.0%	97	322
Luxembourg	1.07%	44.2%	919	4,235	Republic Of	0.06%	45.0%	97	322
					Nigeria	11.94%	62.9%	58	20

**Table 101a: PD, LGD, RWA and exposure values by country for AIRB – central governments and central banks**

Country	PD %	LGD %	RWA €m	Exposure €m	Country	PD %	LGD %	RWA €m	Exposure €m
United Kingdom	0.01%	45.0%	2	58	India	0.38%	45.0%	463	742
United States	0.00%	45.0%	1,700	51,602	Spain	0.06%	45.0%	0	0
Germany	0.01%	45.0%	0	0	Mexico	0.21%	45.0%	6	24
Italy	0.18%	45.0%	3	10	Saudi Arabia	0.07%	96.7%	431	1,957
Japan	0.05%	45.0%	799	7,508	Brazil	2.03%	45.0%	288	298
Canada	0.03%	45.0%	433	2,095	China	0.05%	53.0%	42	402
France	0.01%	45.0%	13	116	Singapore	0.01%	45.0%	117	4,503
Netherlands	—	—	—	—	Turkey	—	—	—	—
Ireland	—	—	—	—	Hong Kong	—	—	—	—
Switzerland	0.01%	45.0%	962	29,434	Korea, Republic Of	0.03%	45.0%	61	962
Cayman Islands	—	—	—	—	South Africa	—	—	—	—
Australia	0.01%	45.0%	244	1,436	Venezuela, Bolivarian	—	—	—	—
Luxembourg	—	—	—	—	Republic Of	—	—	—	—
					Nigeria	12.07%	63.0%	58	19

**Table 101b: PD, LGD, RWA and exposure values by country for AIRB – institutions**

Country	PD %	LGD %	RWA €m	Exposure €m	Country	PD %	LGD %	RWA €m	Exposure €m
United Kingdom	0.27%	43.1%	1,973	7,490	India	0.76%	50.2%	55	60
United States	0.26%	41.6%	1,686	7,590	Spain	0.07%	46.0%	252	983
Germany	0.04%	33.9%	472	2,581	Mexico	0.67%	49.6%	93	132
Italy	0.40%	45.9%	90	132	Saudi Arabia	0.09%	46.2%	11	31
Japan	0.09%	50.1%	749	3,211	Brazil	2.03%	53.4%	102	63
Canada	0.04%	45.0%	348	1,943	China	0.10%	46.0%	304	1,211
France	0.09%	38.0%	955	4,963	Singapore	0.58%	49.4%	113	319
Netherlands	0.04%	39.9%	187	1,349	Turkey	4.69%	54.3%	253	127
Ireland	0.13%	52.5%	74	289	Hong Kong	0.15%	45.5%	90	531
Switzerland	0.03%	45.0%	121	1,409	Korea, Republic Of	0.15%	45.0%	80	267
Cayman Islands	—	—	—	—	South Africa	0.67%	46.0%	125	163
Australia	0.64%	51.6%	277	376	Venezuela, Bolivarian	—	—	—	—
Luxembourg	0.07%	47.8%	39	328	Republic Of	0.06%	45.0%	97	322
					Nigeria	—	—	—	—

## Appendices

### Appendix A – PD, LGD, RWA and Exposures by country continued

**Table 101c: PD, LGD, RWA and exposure values by country for AIRB – corporates**

Country	PD %	LGD %	RWA €m	Exposure €m	Country	PD %	LGD %	RWA €m	Exposure €m
United Kingdom	4.49%	33.7%	26,811	53,471	India	1.37%	73.3%	259	155
United States	2.50%	34.6%	21,129	50,695	Spain	4.94%	40.6%	310	440
Germany	1.64%	44.7%	795	2,465	Mexico	0.54%	66.6%	399	362
Italy	1.42%	45.8%	433	771	Saudi Arabia	0.09%	48.9%	1	6
Japan	0.07%	46.2%	722	4,175	Brazil	0.69%	70.6%	16	8
Canada	1.74%	41.2%	1,360	2,424	China	0.05%	46.4%	6	14
France	0.66%	41.2%	1,095	3,231	Singapore	0.76%	45.1%	116	1,305
Netherlands	1.08%	42.7%	1,626	3,498	Turkey	3.63%	51.2%	47	24
Ireland	1.41%	44.3%	1,606	4,686	Hong Kong	0.06%	55.0%	178	718
Switzerland	0.12%	46.6%	282	1,298	Korea, Republic Of	0.03%	45.0%	46	444
Cayman Islands	7.91%	46.6%	970	1,652	South Africa	0.89%	45.0%	5	6
Australia	0.14%	46.8%	432	1,689	Venezuela, Bolivarian Republic Of	—	—	—	—
Luxembourg	1.16%	43.9%	879	3,907	Nigeria	0.21%	55.5%	0	0

**Table 101d: PD, LGD, RWA and exposure values by country for AIRB – SME retail**

Country	PD %	LGD %	RWA €m	Exposure €m	Country	PD %	LGD %	RWA €m	Exposure €m
United Kingdom	11.11%	36.1%	3,176	7,227	India	—	—	—	—
United States	—	—	—	—	Spain	—	—	—	—
Germany	—	—	—	—	Mexico	—	—	—	—
Italy	—	—	—	—	Saudi Arabia	—	—	—	—
Japan	—	—	—	—	Brazil	—	—	—	—
Canada	—	—	—	—	China	—	—	—	—
France	—	—	—	—	Singapore	—	—	—	—
Netherlands	—	—	—	—	Turkey	—	—	—	—
Ireland	—	—	—	—	Hong Kong	—	—	—	—
Switzerland	—	—	—	—	Korea, Republic Of	—	—	—	—
Cayman Islands	—	—	—	—	South Africa	—	—	—	—
Australia	—	—	—	—	Venezuela, Bolivarian Republic Of	—	—	—	—
Luxembourg	—	—	—	—	Nigeria	—	—	—	—

**Table 101e: PD, LGD, RWA and exposure values by country for AIRB – secured retail**

Country	PD %	LGD %	RWA €m	Exposure €m	Country	PD %	LGD %	RWA €m	Exposure €m
United Kingdom	2.33%	11.6%	24,843	163,888	India	—	—	—	—
United States	15.72%	25.0%	1	3	Spain	5.36%	20.9%	0	1
Germany	0.88%	23.5%	0	2	Mexico	—	—	—	—
Italy	12.29%	23.2%	1,879	5,079	Saudi Arabia	0.12%	14.5%	0	0
Japan	0.31%	18.0%	0	0	Brazil	0.10%	19.1%	0	0
Canada	0.34%	20.0%	0	0	China	0.27%	26.7%	0	0
France	0.24%	18.3%	0	1	Singapore	1.22%	12.5%	0	0
Netherlands	7.71%	21.2%	0	1	Turkey	0.52%	23.3%	0	0
Ireland	0.95%	17.6%	0	0	Hong Kong	—	—	—	—
Switzerland	11.97%	21.8%	1	6	Korea, Republic Of	—	—	—	—
Cayman Islands	—	—	—	—	South Africa	0.09%	14.5%	0	0
Australia	0.09%	20.8%	0	0	Venezuela, Bolivarian Republic Of	—	—	—	—
Luxembourg	28.80%	26.1%	0	0	Nigeria	—	—	—	—

## Appendices

### Appendix A – PD, LGD, RWA and Exposures by country continued

**Table 101f: PD, LGD, RWA and Exposure values by country for AIRB – revolving retail**

Country	PD %	LGD %	RWA Em	Exposure Em	Country	PD %	LGD %	RWA Em	Exposure Em
United Kingdom	<b>3.48%</b>	<b>77.5%</b>	<b>10,946</b>	<b>28,725</b>	India	—	—	—	—
United States	—	—	—	—	Spain	—	—	—	—
Germany	<b>2.54%</b>	<b>77.1%</b>	<b>1,407</b>	<b>4,096</b>	Mexico	—	—	—	—
Italy	—	—	—	—	Saudi Arabia	—	—	—	—
Japan	—	—	—	—	Brazil	—	—	—	—
Canada	—	—	—	—	China	—	—	—	—
France	—	—	—	—	Singapore	—	—	—	—
Netherlands	—	—	—	—	Turkey	—	—	—	—
Ireland	—	—	—	—	Hong Kong	—	—	—	—
Switzerland	—	—	—	—	Korea, Republic Of	—	—	—	—
Cayman Islands	—	—	—	—	South Africa	—	—	—	—
Australia	—	—	—	—	Venezuela, Bolivarian	—	—	—	—
Luxembourg	—	—	—	—	Republic Of	—	—	—	—
					Nigeria	—	—	—	—

**Table 101g: PD, LGD, RWA and exposure values by country for AIRB – other retail exposures**

Country	PD %	LGD %	RWA Em	Exposure Em	Country	PD %	LGD %	RWA Em	Exposure Em
United Kingdom	<b>7.73%</b>	<b>76.0%</b>	<b>3,637</b>	<b>3,987</b>	India	—	—	—	—
United States	—	—	—	—	Spain	—	—	—	—
Germany	—	—	—	—	Mexico	—	—	—	—
Italy	—	—	—	—	Saudi Arabia	—	—	—	—
Japan	—	—	—	—	Brazil	—	—	—	—
Canada	—	—	—	—	China	—	—	—	—
France	—	—	—	—	Singapore	—	—	—	—
Netherlands	—	—	—	—	Turkey	—	—	—	—
Ireland	—	—	—	—	Hong Kong	—	—	—	—
Switzerland	—	—	—	—	Korea, Republic Of	—	—	—	—
Cayman Islands	—	—	—	—	South Africa	—	—	—	—
Australia	—	—	—	—	Venezuela, Bolivarian	—	—	—	—
Luxembourg	—	—	—	—	Republic Of	—	—	—	—
					Nigeria	—	—	—	—

## Appendices

## Appendix B – Analysis of impairment

## IFRS Impairment

The following tables are presented using the IFRS consolidation rather than the regulatory consolidation basis. See pages 164-166 for background on impairment, and page 14 explaining the scope of regulatory consolidation.

**Table 102: Analysis of impaired and past due exposures and allowance for impairment by exposure type**

This table shows total gross loans and advances analysed by balances past due and not past due. It also shows gross exposure assessed for impairment in accordance with IFRS 9 and the resulting allowance for impairment.

	Not past due €m	Past due €m	Total €m	Gross exposure assessed for impairment €m	Allowance for Impairment €m
<b>Barclays Group</b>					
<b>As at 31 December 2021</b>					
Traded loans	12,176	349	12,525	—	—
Financial assets designated at fair value through the income statement	38,630	37	38,667	—	—
Financial assets designated at fair value through other comprehensive income	53	—	53	53	—
Cash collateral and settlement balances	89,969	2,575	92,544	92,544	2
<b>Gross loans and advances at amortised cost:</b>	—	—	—	—	—
Home Loans	164,885	4,795	169,680	169,680	475
Credit cards, unsecured and other retail lending	43,262	2,560	45,822	45,822	4,029
Corporate loans	147,298	4,393	151,691	151,691	1,238
<b>Total Gross loans and advances at amortised cost</b>	<b>355,445</b>	<b>11,748</b>	<b>367,193</b>	<b>367,193</b>	<b>5,742</b>
<b>Totals</b>	<b>496,273</b>	<b>14,709</b>	<b>510,982</b>	<b>459,790</b>	<b>5,744</b>

## Note

a Other financial assets subject to impairment not included in the Loans and Advances table above include financial assets at fair value through other comprehensive income and other assets. These have a total gross exposure of £62.6bn and impairment allowance of £114m.

**Table 103: Geographic analysis of impaired and past due exposures and allowance for impairment**

This table shows total gross loans and advances analysed by balances past due and not past due, and gross exposures assessed for impairment in accordance with IFRS 9 and the resulting impairment allowance, split by geographic location of the counterparty.

	Not past due €m	Past due €m	Total €m	Gross exposure assessed for impairment €m	Allowance for Impairment €m
<b>Barclays Group</b>					
<b>As at 31 December 2021</b>					
UK	314,035	8,740	322,775	306,883	2,645
Europe	50,178	1,938	52,116	46,954	808
Americas	107,471	3,675	111,146	82,213	2,102
Africa and Middle East	5,259	292	5,551	5,077	156
Asia	19,330	64	19,394	18,663	33
<b>Total</b>	<b>496,273</b>	<b>14,709</b>	<b>510,982</b>	<b>459,790</b>	<b>5,744</b>

## Appendices

## Appendix C – Countercyclical Capital Buffer

**Table 104: Countercyclical capital 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.

Note that 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.

Barclays Group Breakdown by Country	General credit Exposures		Trading book exposures		Securitisation exposures	Own Funds requirements			Total	Own Funds Requirements weights	Counter cyclical capital buffer rate
	Exposure Value for SA	Exposure Value for AIRB	Sum of long and short positions for trading book exposures for SA	Value of trading book exposures for internal models		Exposure Value for Non-Trading book	Of which: General credit exposures	Of which: Trading book exposures			
	€m	€m	€m	€m	€m	€m	€m	€m	€m	%	%
Hong Kong (HK)	541	605	15	83	—	54	2	—	56	0.34%	1.00%
Norway (NO)	483	390	14	31	—	27	2	—	29	0.18%	1.00%
Slovakia (SK)	—	—	—	2	—	—	—	—	—	—	1.00%
Luxembourg (LU)	1,878	2,560	218	15	216	195	37	4	236	1.44%	0.50%
Czech Republic (CZ)	11	74	—	5	—	2	—	—	2	0.01%	0.50%
Bulgaria (BG)	—	—	—	1	—	—	—	—	—	—	0.50%
<b>Total (countries with existing CCyB rate)</b>	<b>2,913</b>	<b>3,629</b>	<b>247</b>	<b>137</b>	<b>216</b>	<b>278</b>	<b>41</b>	<b>4</b>	<b>323</b>	<b>1.97%</b>	
United Kingdom (GB)	23,404	259,146	692	236	24,338	6,906	83	317	7,306	44.79%	n/a
United States (US)	35,143	53,763	13,414	317	36,752	4,253	636	574	5,463	33.49%	n/a
Germany (DE)	2,301	6,843	281	428	382	344	36	6	386	2.36%	n/a
Italy (IT)	449	6,003	105	373	—	223	26	—	249	1.53%	n/a
India (IN)	2,403	280	69	13	84	229	8	1	238	1.46%	n/a
France (FR)	1,701	3,206	387	536	153	160	58	2	220	1.35%	n/a
Ireland (IE)	865	3,605	54	56	1,080	171	11	20	202	1.24%	n/a
Netherlands (NL)	827	3,260	276	334	341	165	27	4	196	1.20%	n/a
South Africa (SA)	834	6	43	1	—	165	4	—	169	1.03%	n/a
Canada (CA)	1,059	2,487	64	155	10	156	8	—	164	1.01%	n/a
<b>Total (countries with own funds requirements weights 1% or above)</b>	<b>68,986</b>	<b>338,599</b>	<b>15,385</b>	<b>2,449</b>	<b>63,140</b>	<b>12,772</b>	<b>897</b>	<b>924</b>	<b>14,593</b>	<b>89.46%</b>	
<b>Total (rest of the world less than 1% requirement)</b>	<b>11,125</b>	<b>17,944</b>	<b>1,248</b>	<b>1,294</b>	<b>1,648</b>	<b>1,136</b>	<b>219</b>	<b>42</b>	<b>1,397</b>	<b>8.57%</b>	<b>n/a</b>
<b>Total</b>	<b>83,024</b>	<b>360,172</b>	<b>16,880</b>	<b>3,880</b>	<b>65,004</b>	<b>14,186</b>	<b>1,157</b>	<b>970</b>	<b>16,313</b>	<b>100.00%</b>	

**Amount of institution-specific countercyclical capital buffer**

Total risk exposure amount	£314,136m
Institution specific countercyclical buffer rate	0.01%
Institution specific countercyclical buffer requirement	£39m

## Appendices

### Appendix C – Countercyclical Capital Buffer continued

**Table 104a: Countercyclical capital buffer for significant subsidiary**

	General credit Exposures		Trading book exposures		Securitisation exposures	Own Funds requirements			Total	Own Funds Requirements weights	Counter cyclical capital buffer rate
	Exposure Value for SA	Exposure Value for AIRB	Sum of long and short positions for trading book exposures for SA	Value of trading book exposures for internal models	Exposure Value for Non-Trading book	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures			
	£m	£m	£m	£m	£m	£m	£m	£m	£m	%	%
<b>Barclays Bank PLC</b>											
<b>Breakdown by Country</b>											
Hong Kong (HK)	776	600	9	83	—	72	1	—	73	0.80%	1.00%
Norway (NO)	—	74	5	16	—	3	1	—	4	0.04%	1.00%
Slovakia (SK)	—	—	—	2	—	—	—	—	—	—	1.00%
Luxembourg (LU)	1,272	1,573	187	11	216	123	34	4	161	1.75%	0.50%
Czech Republic (CZ)	8	67	—	4	—	2	—	—	2	0.02%	0.50%
Bulgaria (BG)	—	—	—	1	—	—	—	—	—	—	0.50%
<b>Total (countries with existing CCyB rate)</b>	<b>2,056</b>	<b>2,314</b>	<b>201</b>	<b>117</b>	<b>216</b>	<b>200</b>	<b>36</b>	<b>4</b>	<b>240</b>	<b>2.61%</b>	
United States (US)	16,831	48,385	6,756	277	36,751	3,048	249	574	3,871	41.96%	n/a
United Kingdom (GB)	82,998	41,029	550	247	16,625	2,878	68	220	3,166	34.32%	n/a
India (IN)	1,569	243	—	13	84	157	2	1	160	1.74%	n/a
Canada (CA)	342	2,230	35	155	10	140	5	—	145	1.57%	n/a
France (FR)	1,063	1,628	302	288	35	92	52	—	144	1.56%	n/a
Netherlands (NL)	451	1,540	124	231	341	98	32	4	134	1.45%	n/a
Ireland (IE)	674	1,776	21	44	1,080	99	7	20	126	1.37%	n/a
Germany (DE)	78	1,600	108	243	382	66	23	6	95	1.03%	n/a
<b>Total (countries with own funds requirements weights 1% or above)</b>	<b>104,006</b>	<b>98,431</b>	<b>7,896</b>	<b>1,498</b>	<b>55,308</b>	<b>6,578</b>	<b>438</b>	<b>825</b>	<b>7,841</b>	<b>85.00%</b>	
<b>Total (rest of the world less than 1% requirement)</b>	<b>8,224</b>	<b>15,339</b>	<b>733</b>	<b>1,773</b>	<b>1,617</b>	<b>915</b>	<b>188</b>	<b>41</b>	<b>1,144</b>	<b>12.39%</b>	<b>n/a</b>
<b>Total</b>	<b>114,286</b>	<b>116,084</b>	<b>8,830</b>	<b>3,388</b>	<b>57,141</b>	<b>7,693</b>	<b>662</b>	<b>870</b>	<b>9,225</b>	<b>100%</b>	
<b>Amount of institution-specific countercyclical capital buffer</b>											
Total risk exposure amount										£185,467m	
Institution specific countercyclical buffer rate										0.02%	
Institution specific countercyclical buffer requirement										£32m	

## Appendices

# Appendix D – Disclosure 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.

Encumbered assets have been defined consistently with the Group's reporting requirements under Article 100 of the CRR. Securities and commodities 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 2021, £194.5bn (December 2020: £205.1bn) of the Group's assets were encumbered, primarily due to firm financing of trading portfolio assets, posting of cash collateral, funding secured against loans and advances and other assets at fair value.

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. £91.7bn (December 2020: £99.2bn) of on-balance sheet assets were positioned at the central banks, consisting of encumbered assets and collateral available for use in secured financing transactions.

£500.1bn (December 2020: £441.1bn) of on and off balance sheet assets not positioned at the central bank were identified as readily available for use in secured financing transactions. 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. This includes excess collateral already in secured funding vehicles.

£204.8bn (December 2020: £184.3bn) of assets not positioned at the central bank were identified as available as collateral. These assets are not subject to any 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 would be suitable for use in secured funding structures but are conservatively classified as not readily available because they are not in a transferable form.

Not available as collateral consists of assets that 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.

In addition, £817.8bn (December 2020: £685.3bn) of the total £929.0bn (December 2020: £793.6bn) 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. The remainder relates primarily to reverse repurchase agreements used to settle trading portfolio liabilities as well as collateral posted against derivatives margin requirements.

## Appendices

### Appendix D – Disclosure on asset encumbrance continued

#### Asset encumbrance

Barclays Group	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	As a result of covered bonds		Other	Total	Assets positioned at the central banks <sup>a</sup>	Assets not positioned at central banks				Total
		As a result of securitisations	As a result of covered bonds				Readily available assets	Available as collateral	Not available as collateral	Derivatives and Reverse repos	
On-balance sheet	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn
<b>As at 31 December 2021</b>											
Cash and balances at central banks	238.5	—	—	—	—	—	238.5	—	—	—	238.5
Cash collateral	73.5	—	—	65.6	65.6	—	7.9	—	—	—	7.9
Settlement balances	18.4	—	—	—	—	—	—	—	18.4	—	18.4
Loans and advances at amortised cost	356.6	6.9	1.6	27.7	36.2	89.8	29.8	199.0	1.8	—	320.4
Reverse repurchase agreements and other similar secured lending	3.2	—	—	—	—	—	—	—	—	3.2	3.2
Trading portfolio assets	152.3	—	—	74.7	74.7	0.1	77.5	—	—	—	77.6
Financial assets at fair value through the income statement	189.3	—	—	5.6	5.6	—	2.8	5.7	—	175.2	183.7
Derivative financial instruments	262.3	—	—	—	—	—	—	—	—	262.3	262.3
Financial assets at fair value through other comprehensive income	61.9	—	—	12.4	12.4	1.8	47.6	0.1	—	—	49.5
Other assets	24.6	—	—	—	—	—	—	—	24.6	—	24.6
<b>Total on-balance sheet</b>	<b>1,380.6</b>	<b>6.9</b>	<b>1.6</b>	<b>186.0</b>	<b>194.5</b>	<b>91.7</b>	<b>404.1</b>	<b>204.8</b>	<b>44.8</b>	<b>440.7</b>	<b>1,186.1</b>

#### Off-balance sheet

	Collateral received	Collateral received of which on-pledged	Readily available assets	Available as collateral	Not available as collateral
	£bn	£bn	£bn	£bn	£bn
Fair value of securities accepted as collateral	929.0	817.8	96.0	—	15.2
<b>Total unencumbered collateral</b>	<b>—</b>	<b>—</b>	<b>500.1</b>	<b>204.8</b>	<b>60.0</b>

#### Note

a Includes both encumbered and unencumbered assets. Assets within this category that have been encumbered are disclosed as assets pledged in Note 38 on page 413 of the Barclays PLC Annual Report 2021



## Appendices

### Appendix D – Disclosure on asset encumbrance continued

The reported values represent the median of the values reported to the regulator via supervisory returns over the period 1 January 2021 to 31 December 2021. The Annual Report disclosure is reported as at year end. There is a difference due to the differences in consolidation between the Annual Report (IFRS consolidation) and the Pillar 3 (regulatory consolidation).

#### Template A - Assets

	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of non-encumbered assets	Fair value of non-encumbered assets
	010	040	060	090
	£bn	£bn	£bn	£bn
<b>Barclays Group</b>				
010 Assets of the institution	<b>209.8</b>	<b>—</b>	<b>1,175.7</b>	<b>—</b>
030 Equity instruments	<b>41</b>	<b>41</b>	<b>38.2</b>	<b>38.2</b>
040 Debt securities	<b>64.4</b>	<b>64.4</b>	<b>97</b>	<b>97</b>
120 Other assets	<b>102.1</b>	<b>—</b>	<b>1,038.4</b>	<b>—</b>

#### Template B - Collateral received

	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
	010	040
	£bn	£bn
<b>Barclays Group</b>		
130 Collateral received by the institution	<b>718.9</b>	<b>97.6</b>
150 Equity instruments	<b>120.7</b>	<b>28.2</b>
160 Debt securities	<b>594.3</b>	<b>71.2</b>
230 Other collateral received	<b>—</b>	<b>—</b>
240 Own debt securities issued other than own covered bonds or ABSs	<b>—</b>	<b>1.5</b>

#### Template C - Encumbered assets/collateral received and associated liabilities

	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
	010	030
	£bn	£bn
<b>Barclays Group</b>		
010 Carrying amount of selected financial liabilities	<b>285.9</b>	<b>596.2</b>

The Group's median asset encumbrance for 2021 was £209.8bn (December 2020: £210.3bn), which primarily related to firm financing of trading portfolio assets and other securities, cash collateral and secured funding against loans and advances to customers. Encumbered assets have been identified in a manner consistent with the Barclays Group's reporting requirements under CRR. Securities and commodity 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.

## Appendices

# Appendix E – Disclosures on remuneration – Barclays Group

The following disclosures are made in accordance with Article 450 of the Capital Requirements Regulation, the Basel Committee on Banking Supervision ('BCBS') Pillar 3 disclosure requirements standard (December 2018) and the 2015 EBA Guidelines on sound remuneration policies.

The Remuneration Report in the Barclays PLC 2021 Annual Report provides an overview of the 2021 performance and pay outcomes for the Executive Directors of Barclays PLC, as well as a summary of remuneration policies for all employees (including material risk takers ('MRTs')), Executive Directors and Non-Executive Directors.

### Remuneration Governance

The Barclays PLC Board Remuneration Committee (the 'Committee') sets the overarching principles and parameters of the remuneration policy across the Barclays Group and exercises oversight over 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.

### Performance management and remuneration

Barclays' remuneration philosophy (set out in the Remuneration Report) links remuneration to achieving sustained high performance and creating long-term value. 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 assessment on clear standards of delivery and behaviour, which starts with employees aligning their objectives ('what' they will deliver) to business and team goals in order to support the delivery of the business strategy and good client/customer outcomes. 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 Risk and Compliance functions, where appropriate.

Through our approach to performance, 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. Both of these elements are assessed and rated independently of each other. There is no requirement to have an 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 business to ensure these issues are also 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:

Adjustment	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.
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 which may lead the Committee to do this include, but are not limited to, employee misconduct or a material failure of risk management.
Clawback	<p>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:</p> <p>(i) There is reasonable evidence of employee misbehaviour or material error, and/or</p> <p>(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.</p> <p>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.</p>

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 a wide range 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.

## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

#### 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 the 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). A notional discount rate was applied to 25% of two individuals' variable remuneration in accordance with the 2015 EBA Guidelines on sound remuneration policies.

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 value of variable remuneration typically limited to one times fixed remuneration.

#### Fixed remuneration

<b>Salary</b>	Salaries reflect individuals' skills and experience and are reviewed annually. They are increased where justified by role change, increased responsibility or a change in the appropriate market rate. Salaries may also be increased in line with local statutory requirements and union and works council commitments.
<b>Role Based Pay</b>	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.
<b>Pension and benefits</b>	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.

#### Variable remuneration

<b>Annual bonus</b>	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 and mobile market for talent in the financial services sector. Awards of guaranteed variable remuneration are only made in exceptional circumstances in the context of hiring and typically only when the new hire starts in the last quarter of the year.																				
	<b>Bonus deferral</b> The Committee is careful to control the proportion of variable to fixed remuneration paid to individuals and also to ensure an appropriate amount is deferred to future years. The typical deferral structures are:																				
	<table border="1"> <thead> <tr> <th colspan="2">For MRTs:</th> <th colspan="2">For de minimis MRTs/non-MRTs</th> </tr> <tr> <th>Incentive award</th> <th>Amount deferred</th> <th>Incentive award</th> <th>Amount deferred</th> </tr> </thead> <tbody> <tr> <td>&lt; £500,000</td> <td>40% of total award</td> <td>Up to €65,000</td> <td>0%</td> </tr> <tr> <td>£500,000 to £1,000,000</td> <td>60% of total award</td> <td>&gt; €65,000</td> <td>Graduated level of deferral</td> </tr> <tr> <td>&gt; £1,000,000</td> <td>60% up to £1,000,000 100% above £1,000,000</td> <td></td> <td></td> </tr> </tbody> </table>	For MRTs:		For de minimis MRTs/non-MRTs		Incentive award	Amount deferred	Incentive award	Amount deferred	< £500,000	40% of total award	Up to €65,000	0%	£500,000 to £1,000,000	60% of total award	> €65,000	Graduated level of deferral	> £1,000,000	60% up to £1,000,000 100% above £1,000,000		
For MRTs:		For de minimis MRTs/non-MRTs																			
Incentive award	Amount deferred	Incentive award	Amount deferred																		
< £500,000	40% of total award	Up to €65,000	0%																		
£500,000 to £1,000,000	60% of total award	> €65,000	Graduated level of deferral																		
> £1,000,000	60% up to £1,000,000 100% above £1,000,000																				
	Deferred bonuses are generally delivered in equal portions as deferred cash and deferred shares (save for 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 dividend equivalents during the vesting period.																				

<b>Share plans</b>	Alignment of MRTs with shareholders is achieved through deferral of incentive pay. The Committee also encourages additional shareholding through the all-employee share plans.
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## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

#### Total Remuneration in respect of the financial year

##### Total Remuneration for the financial year

	All Employees
Number of individuals	<b>88,565</b>
Fixed remuneration (£m)	<b>5,260</b>
Variable remuneration (£m)	<b>1,945</b>
Total remuneration (£m)	<b>7,205</b>

#### Remuneration of MRTs in respect of the financial year

MRTs are members of the Barclays PLC Board, the Barclays Bank UK PLC Board, the Barclays Bank PLC Board, the Barclays Bank Ireland PLC Board and Barclays' Group employees whose professional activities could have a material impact on the Group's risk profile. A total of 1,555 individuals were MRTs in 2021 (2020: 1,746). 'Senior management', as referred to in the tables below, means members of the Barclays PLC Board (Executive Directors and Non-Executive Directors) and members of the Barclays Group Executive Committee in accordance with Article 3(9) of CRDIV.

Under the Executive Director shareholding requirements Barclays' shareholdings worth a minimum of 233% of Fixed Pay for the Group Chief Executive and 224% of Fixed Pay for the Group Finance Director are required to be accumulated within five years from the date of their appointment, and held for two years post-termination commencing from their last day in office. 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 to holding periods (including vested LTIPs). Shares from unvested deferred share bonuses and unvested LTIPs do not count towards the requirement during employment, but will count towards post-termination requirements (net of tax) provided there are no remaining untested performance conditions. The Chairman and Non-Executive Directors have a requirement to use a portion of their annual fees (£100,000 for the Chairman, £30,000 for Non-Executive Directors) to purchase shares, which must be retained until they retire from the Board.

Barclays' major business areas are Barclays UK, which encompasses Personal Banking, Business Banking and Barclaycard Consumer UK, and Barclays International, which encompasses the Corporate and Investment Bank (CIB), and Consumer, Cards and Payments (CCP). 'Barclays Other' includes internal control functions and corporate functions.

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.

## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

#### Remuneration for the financial year

	Senior management <sup>a</sup>	Other MRTs		
		Barclays International	Barclays UK	Barclays Other
<b>Fixed remuneration<sup>b</sup></b>				
Number of individuals	25	875	39	616
Total fixed remuneration (£m)	33	508	13	183
Fixed cash remuneration (£m) <sup>c</sup>	23	503	13	183
Fixed remuneration in shares (£m)	10	5	—	—
of which subject to holding period (£m)	10	5	—	—
<b>Variable remuneration<sup>b</sup></b>				
Number of individuals	13	791	30	535
Total variable remuneration (£m)	33	653	7	122
Total cash bonus (£m)	14	328	3	65
of which deferred (£m)	11	215	2	29
Total share bonus (£m)	15	325	4	57
of which deferred or subject to holding period (£m)	15	325	4	57
Long-term incentive award (£m) <sup>d</sup>	4	—	—	—
<b>Total remuneration (£m)</b>	<b>66</b>	<b>1,161</b>	<b>20</b>	<b>305</b>

#### Notes

- a As senior management is comprised of members of the Barclays PLC Board and members of the Barclays Group Executive Committee, it is not appropriate to separate by business area.
- b Fixed remuneration takes the form of cash and/or shares and pensions and benefits in line with policy. Variable remuneration takes the form of cash and/or shares and there are no other forms of variable remuneration.
- c Fixed cash remuneration includes an estimate for pensions and benefits during the year. Fixed cash remuneration is not subject to holding periods.
- d Includes an average notional discount rate of 29% that was applied to the award in accordance with the 2015 EBA Guidelines on sound remuneration policies. Outcome contingent on future performance.

#### Deferred remuneration – Senior management

All figures in £m	Barclays International		
	Total	Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>93</b>	24	69
Awarded in year	33	7	26
Adjusted through			
ex post explicit adjustments <sup>a</sup>	(4)	—	(4)
ex post implicit adjustments <sup>b</sup>	21	—	21
Forfeited	—	—	—
Paid in year	(23)	(5)	(18)
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>120</b>	26	94
of which vested	21	—	21
of which unvested	99	26	73

#### Deferred Remuneration – Other MRTs

All figures in £m	Barclays International		
	Total	Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>712</b>	273	439
Awarded in year	476	169	307
Adjusted through			
ex post explicit adjustments <sup>a</sup>	—	—	—
ex post implicit adjustments <sup>b</sup>	138	—	138
Forfeited	(38)	(17)	(21)
Paid in year	(366)	(117)	(249)
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>922</b>	308	614
of which vested	139	—	139

## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

of which unvested	<b>783</b>	308	475
<b>Deferred Remuneration – Other MRTs</b>			
All figures in £m			
	Total	Barclays UK	
		Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>10</b>	3	7
Awarded in year	<b>4</b>	1	3
Adjusted through			
ex post explicit adjustments <sup>a</sup>	—	—	—
ex post implicit adjustments <sup>b</sup>	<b>2</b>	—	2
Forfeited	—	—	—
Paid in year	<b>(5)</b>	(1)	(4)
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>11</b>	3	8
of which vested	<b>1</b>	—	1
of which unvested	<b>10</b>	3	7

<b>Deferred Remuneration – Other MRTs</b>			
All figures in £m			
	Total	Barclays Other	
		Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>120</b>	41	79
Awarded in year	<b>67</b>	20	47
Adjusted through			
ex post explicit adjustments <sup>a</sup>	—	—	—
ex post implicit adjustments <sup>b</sup>	<b>25</b>	—	25
Forfeited	<b>(5)</b>	(2)	(3)
Paid in year	<b>(61)</b>	(15)	(46)
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>146</b>	44	102
of which vested	<b>20</b>	—	20
of which unvested	<b>126</b>	44	82

#### Notes

- a Total reduction due to direct adjustments such as malus and clawback or non-achievement of LTIP performance conditions.  
b Total change in remuneration due to movements in share price or exchange rate during the year.

## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

c All outstanding awards are exposed to ex post explicit and/or implicit adjustment.

#### Joining and Severance Payments

	Senior management	Other MRTs		
		Barclays International	Barclays UK	Barclays Other
<b>Sign-on awards</b>				
Number of beneficiaries	—	1	—	—
Made during the year (£m)	—	1.1	—	—
<b>Buy-out awards</b>				
Number of beneficiaries	—	20	—	9
Made during the year (£m)	—	30.6	—	3.5
<b>Severance awards<sup>a</sup></b>				
Number of beneficiaries	—	9	3	18
Made during the year (£m)	—	2.2	0.5	1.5
of which paid during the year (£m)	—	2.2	0.5	1.5
of which deferred (£m)	—	—	—	—
Highest individual award (£m)	—	1.3	0.2	0.3

#### Note

a Any severance awards that fall outside of paragraph 154 (a) – (c) of the 2015 EBA Guidelines are counted for the purposes of the 2:1 pay ratio for the year in which they are paid.

#### Number of MRTs by band<sup>a</sup>

Remuneration band	2021
	Number of MRTs
€1,000,001 to €1,500,000	315
€1,500,001 to €2,000,000	154
€2,000,001 to €2,500,000	75
€2,500,001 to €3,000,000	52
€3,000,001 to €3,500,000	28
€3,500,001 to €4,000,000	24
€4,000,001 to €4,500,000	16
€4,500,001 to €5,000,000	3
€5,000,001 to €6,000,000	11
€6,000,001 to €7,000,000	10
€7,000,001 to €8,000,000	4
€8,000,001 to €9,000,000	3
€9,000,001 to €10,000,000	2
€10,000,001 to €11,000,000	2
€11,000,001 to €12,000,000	1

#### Note

a The table is prepared in Euros in accordance with Article 450 of the Capital Requirements Regulation. Data has been converted into Euros using the rates published by the European

## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

Commission for financial programming and budget for December of the reported year.

#### Barclays Bank PLC remuneration

The following disclosures are made in accordance with Article 450 of the Capital Requirements Regulation, the Basel Committee on Banking Supervision ('BCBS') Pillar 3 disclosure requirements standard (December 2018) and the 2015 EBA Guidelines on sound remuneration policies.

#### Remuneration Governance

The mandate of the Barclays Bank PLC ('BBPLC') Board Remuneration Committee and details of the number of meetings held during the year are all included in the 2021 BBPLC Annual Report. No external consultants provide services to BBPLC Remuneration Committee.

The BBPLC Remuneration Committee has adopted the over-arching principles and parameters of the remuneration policy set by the Barclays PLC Remuneration Committee, as disclosed in the Barclays PLC Pillar 3 disclosure set out earlier in this report.

Save as set out below, information relating to qualitative disclosures is contained in the Barclays PLC Pillar 3 disclosure.

#### Total Remuneration in respect of the financial year

##### Total Remuneration for the financial year

	All Employees
Number of individuals	21,009
Fixed remuneration (£m)	2,598
Variable remuneration (£m)	1,492
<b>Total remuneration (£m)</b>	<b>4,090</b>

#### Remuneration of MRTs in respect of the financial year

On 14 December 2017, the Board of Barclays PLC as shareholder of Barclays Bank PLC approved the resolution that Barclays Bank PLC and any of its current and future subsidiaries be authorised to apply a ratio of fixed to variable components of total remuneration of their MRTs that exceeds 1:1, provided the ratio does not exceed 1:2.

MRTs are the members of the Barclays Bank PLC Board and Barclays Bank PLC employees whose professional activities could have a material impact on Barclays Bank PLC's risk profile. A total of 1,102 individuals were MRTs in 2021 (2020: 1,290). 'Senior management', as referred to in the tables below, means members of the Barclays Bank PLC Board (Executive Directors and Non-Executive Directors) and members of the Barclays Bank PLC Executive Committee in accordance with Article 3(9) of CRDIV.

Barclays Bank PLC's major business areas are Corporate and Investment Bank ('CIB') and Consumer, Cards and Payments ('CCP'). 'BBPLC Other' includes internal control functions and corporate functions.

The following set of tables set out the remuneration disclosures for individuals identified as MRTs for Barclays Bank PLC.

#### Remuneration for the financial year

	Senior management <sup>a</sup>	Other MRTs		
		CIB	CCP	BBPLC Other
<b>Fixed remuneration<sup>b</sup></b>				
Number of individuals	22	776	29	275
Total fixed remuneration (£m)	26	466	13	84
Fixed cash remuneration (£m) <sup>c</sup>	20	460	13	84
Fixed remuneration in shares (£m)	6	6	—	—
of which subject to holding period (£m)	6	6	—	—
<b>Variable remuneration<sup>b</sup></b>				
Number of individuals	14	700	28	248
Total variable remuneration (£m)	30	604	14	57
Total cash bonus (£m)	13	303	7	31
of which deferred (£m)	9	201	4	14
Total share bonus (£m)	13	301	7	26
of which deferred or subject to holding period (£m)	13	301	7	26
Long-term incentive award (£m) <sup>d</sup>	4	—	—	—
<b>Total remuneration (£m)</b>	<b>56</b>	<b>1,070</b>	<b>27</b>	<b>141</b>

#### Notes

- As senior management are comprised of members of the Barclays Bank PLC Board and members of the Barclays Bank PLC Executive Committee, it is not appropriate to separate by business area.
- Fixed remuneration takes the form of cash and/or shares and pensions and benefits in line with policy. Variable remuneration takes the form of cash and/or shares and there are no other forms of variable remuneration.
- Fixed cash remuneration includes an estimate for pensions and benefits during the year. Fixed cash remuneration is not subject to holding periods.
- Includes an average notional discount rate of 29% that was applied to the award in accordance with the 2015 EBA Guidelines on sound remuneration policies. Outcome contingent on future performance.



## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

#### Deferred remuneration – Senior management

All figures in £m	Total	Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>79</b>	19	60
Awarded in year	<b>26</b>	6	20
Adjusted through			
ex post explicit adjustments <sup>a</sup>	<b>(4)</b>	—	(4)
ex post implicit adjustments <sup>b</sup>	<b>—</b>	—	—
Forfeited	<b>—</b>	—	—
Paid in year	<b>(20)</b>	(5)	(15)
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>81</b>	20	61
of which vested	<b>15</b>	—	15
of which unvested	<b>66</b>	20	46

#### Deferred Remuneration – Other MRTs

All figures in £m	Total	CIB	Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>662</b>	254	408	
Awarded in year	<b>446</b>	160	286	
Adjusted through				
ex post explicit adjustments <sup>a</sup>	<b>—</b>	—	—	—
ex post implicit adjustments <sup>b</sup>	<b>128</b>	—	—	128
Forfeited	<b>(37)</b>	(17)	(20)	
Paid in year	<b>(338)</b>	(109)	(229)	
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>861</b>	288	573	
of which vested	<b>132</b>	—	132	
of which unvested	<b>729</b>	288	441	

#### Deferred Remuneration – Other MRTs

All figures in £m	Total	CCP	Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>14</b>	5	9	
Awarded in year	<b>7</b>	2	5	
Adjusted through				
ex post explicit adjustments <sup>a</sup>	<b>—</b>	—	—	—
ex post implicit adjustments <sup>b</sup>	<b>3</b>	—	3	
Forfeited	<b>—</b>	—	—	—
Paid in year	<b>(7)</b>	(2)	(5)	
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>17</b>	5	12	
of which vested	<b>3</b>	—	3	
of which unvested	<b>14</b>	5	9	

#### Deferred Remuneration – Other MRTs

All figures in £m	Total	BBPLC Other	Cash	Shares
<b>Balance as at 1 January 2021</b>	<b>68</b>	23	45	
Awarded in year	<b>35</b>	11	24	
Adjusted through				
ex post explicit adjustments <sup>a</sup>	<b>—</b>	—	—	—
ex post implicit adjustments <sup>b</sup>	<b>14</b>	—	—	14
Forfeited	<b>(3)</b>	(1)	(2)	
Paid in year	<b>(32)</b>	(9)	(23)	
<b>Balance as at 31 December 2021<sup>c</sup></b>	<b>82</b>	24	58	
of which vested	<b>11</b>	—	11	
of which unvested	<b>71</b>	24	47	

#### Notes

- a Total reduction due to direct adjustments such as malus and clawback or non-achievement of LTIP performance conditions.  
b Total change in remuneration due to movements in share price or exchange rate during the year.  
c All outstanding awards are exposed to ex post explicit and/or implicit adjustment.

## Appendices

### Appendix E – Disclosures on remuneration – Barclays Group continued

#### Joining and Severance Payments

	Senior management	Other MRTs		
		CIB	CCP	BBPLC Other
<b>Sign-on awards</b>				
Number of beneficiaries	—	—	—	—
Made during the year (£m)	—	—	—	—
<b>Buy-out awards</b>				
Number of beneficiaries	—	17	1	6
Made during the year (£m)	—	29.0	0.3	1.2
<b>Severance awards<sup>a</sup></b>				
Number of beneficiaries	—	6	—	4
Made during the year (£m)	—	0.5	—	0.4
of which paid during the year (£m)	—	0.5	—	0.4
of which deferred (£m)	—	—	—	—
Highest individual award (£m)	—	0.2	—	0.3

**Note**

a Any severance awards that fall outside of paragraph 154 (a) – (c) of the 2015 EBA Guidelines are counted for the purposes of the 2:1 pay ratio for the year in which they are paid.

#### Number of MRTs by band<sup>a</sup>

Remuneration band	2021
	Number of MRTs
€1,000,001 to €1,500,000	265
€1,500,001 to €2,000,000	136
€2,000,001 to €2,500,000	69
€2,500,001 to €3,000,000	48
€3,000,001 to €3,500,000	25
€3,500,001 to €4,000,000	23
€4,000,001 to €4,500,000	15
€4,500,001 to €5,000,000	3
€5,000,001 to €6,000,000	10
€6,000,001 to €7,000,000	9
€7,000,001 to €8,000,000	4
€8,000,001 to €9,000,000	3
€9,000,001 to €10,000,000	2
€10,000,001 to €11,000,000	2
€11,000,001 to €12,000,000	1

**Note**

a The table is prepared in Euros in accordance with Article 450 of the Capital Requirements Regulation. Data has been converted into Euros using the rates published by the European Commission for financial programming and budget for December of the reported year.

## Appendices

# Appendix F - Compliance to Pillar 3 requirements

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
<i>Scope of disclosure requirements</i>		
431 (1)	Requirement to publish Pillar 3 disclosures	Barclays publishes Pillar 3 disclosures
431 (2)	Firms with permission to use specific operational risk methodologies must disclose operational risk information	The Operational Risk section on pages 145 - 148 contains a description of the operational risk framework, and required Pillar 3 disclosures
431 (3)	Institution must have a policy covering frequency of disclosures. Their verification, comprehensiveness and overall appropriateness	Barclays has a dedicated Pillar 3 policy
431 (4)	Explanation of ratings decision upon request	Barclays provides explanations of rating decisions to SMEs whose loan applications were declined in writing, and suggests alternative sources of finance. Barclays participates in a formal appeals process, one of the successful initiatives implemented as part of Business Finance Taskforce, with a government-appointed overseer. In the case of larger corporates, written explanations are not usually requested as direct discussions with relationship managers take place
<i>Non-material, proprietary or confidential information</i>		
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 (1) and (2) apply this must be stated in the disclosures, and more general information must be disclosed	This table specifies where disclosures are omitted
432 (4)	Use of 432 (1) or (2) is without prejudice to scope of liability for failure to disclose material information	
<i>Frequency of disclosure</i>		
433	Disclosures must be published once a year at a minimum, and more frequently if necessary	Compliance with this provision is covered by Barclays' policy. See under "Basis of preparation" on page 5
<i>Means of disclosures</i>		
434 (1)	To include of disclosures in one appropriate medium, or provide clear cross-references	Most disclosures are contained within this document. Signposting directs the reader to other publications where appropriate. Note that remuneration disclosures are contained in a dedicated publication
434 (2)	Disclosures made under other requirements (e.g. accounting) can be used to satisfy Pillar 3 if appropriate	Any cross-references to accounting or other disclosures are clearly signposted in this document. In particular, see page 247 for "Location of Risk Disclosures"
<i>Risk management objectives and policies</i>		
435 (1) (a)	Disclose information on strategies and processes; organisational structure, reporting systems and risk mitigation/hedging	Risk management strategy: page 149
435 (1) (b)		Credit Risk: page 159
435 (1) (c)		Counterparty Credit Risk: page 177
435 (1) (d)		Market Risk: page 180
		Operational Risk: page 201
		Other Principal Risks:
		Treasury and Capital Risk - Capital: page 193
		Treasury and Capital Risk - Liquidity: page 195
		Model Risk: page 205
		Conduct Risk: page 208
		Reputation Risk: page 210
		Legal Risk: page 212

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
435 (1) (e)	Inclusion of a declaration approved by the Board on adequacy of risk management arrangements	See page 153. This statement covers all Principal Risks
435 (1) (f)	Inclusion of a concise risk statement approved by the Board	See page 155. This statement covers all Principal Risks
435 (2)	Information on governance arrangements, including information on Board composition and recruitment, and risk committees	See page 153 for a description of the risk committees. Pages 117-123 of the Annual Report contains information on Board composition, experience and recruitment
435 (2) (a)	Number of directorships held by directors	Please see pages 117-123 of the 2021 Annual Report
435 (2) (b)	Recruitment policy of Board members, their experience and expertise	Please see pages 117-123 of the 2021 Annual Report
435 (2) (c)	Policy on diversity of Board membership and results against targets	Please see pages 117-123 of the 2021 Annual Report
435 (2) (d)	Disclosure of whether a dedicated risk committee is in place, and number of meetings in the year	Please see pages 140-147 of the 2021 Annual Report
435 (2) (e)	Description of information flow on risk to Board	Figure on page 152 in the risk management strategy section illustrates the reporting structure to Board committees
<i>Scope of application</i>		
436 (a)	Name of institution	See under "Scope of consolidation" on page 9
436 (b)	Difference in basis of consolidation for accounting and prudential purposes, naming entities that are:	Page 14 / Table 5 : LI3 Outline of the differences in the scopes of consolidation
436 (b) (i)	Fully consolidated	
436 (b) (ii)	Proportionally consolidated	
436 (b) (iii)	Deducted from own funds	
436 (b) (iv)	Neither consolidated nor deducted	
436 (c)	Impediments to transfer of funds between parent and subsidiaries	See page 195
436 (d)	Capital shortfalls in any subsidiaries outside of scope of consolidation	Entities outside the scope of consolidation are appropriately capitalised
436 (e)	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
<i>Own funds</i>		
437 (1)	Requirements regarding capital resources table	Page 17 / Table 7: Composition of regulatory capital  Standalone document: Summary of terms and conditions of own funds and eligible liabilities
437 (1) (a)		
437 (1) (b)		
437 (1) (c)		
437 (1) (d) (i)		
437 (1) (d) (ii)		
437 (1) (d) (iii)		
437 (1) (e)		
437 (1) (f)		
437 (2)	EBA to publish implementation standards for points above	Barclays follows the implementation standards

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
<i>Capital requirements</i>		
438 (a)	Summary of institution's approach to assessing adequacy of capital levels	Discussions of capital calculations are contained in each risk type management section (credit, market and operational). General discussion on capital planning is on pages 265-268 of the 2021 Annual Report
438 (b)	Result of ICAAP on demand from authorities	Barclays has not received this request from its regulator
438 (c)	Capital requirement amounts for credit risk for each standardised approach exposure class	Page 50 / Table 32: Detailed view of RWAs and Capital requirements for credit risk Various other tables contain capital requirements throughout the report
438 (d)	Capital requirements amounts for credit risk for each Internal Ratings Based Approach exposure class	Page 50 / Table 32: Detailed view of RWAs and Capital requirements for credit risk  Barclays shows a nil return for equity investments in 2020
438 (d) (i)		
438 (d) (ii)		
438 (d) (iii)		
438 (d) (iv)		
438 (e)	Capital requirements amounts for market risk or settlement risk, or large exposures where they exceed limits	Capital requirements for market risk are disclosed in Page 130/ Table 86: Market risk own funds requirements
438 (f)	Capital requirement amounts for operational risk, separately for the basic indicator approach, the standardised approach, and the advanced measurement approaches as applicable	Page 146 / Table 97: Risk weighted assets for operational risk
438 (endnote)	Requirement to disclose specialised lending exposures and equity exposures in the banking book falling under the simple risk weight approach	Specialised lending exposures: Page 78 / Table 49 : Corporate exposures subject to the slotting approach
<i>Exposure to counterparty credit risk (CCR)</i>		
439 (a)	Description of process to assign internal capital and credit limits to CCR exposures	Pages 177 - 179
439 (b)	Discussion of process to secure collateral and establishing reserves	Pages 177 - 179
439 (c)	Discussion of management of wrong-way exposures	Pages 177 - 179
439 (d)	Disclosure of collateral to be provided (outflows) in the event of a ratings downgrade	See the liquidity risk management section on pages 195 - 197
439 (e)	Derivation of net derivative credit exposure	Page 112 / Table 70: Counterparty credit exposure by approach
439 (f)	Exposure values for mark-to-market, original exposure, standardised and internal model methods	Page 120 / Table 76: Impact of netting and collateral held on exposure value
439 (g)	Notional value of credit derivative hedges and current credit exposure by type of exposure	Page 122 / Table 79: Notional value of credit derivative contracts held for hedging purposes
439 (h)	Notional amounts of credit derivative transactions for own credit, intermediation, bought and sold, by product type	Page 121 / Table 78: Notional exposure associated with credit derivative contracts
439 (i)	Estimate of alpha, if applicable	The alpha used by Barclays is 1.4
<i>Capital buffers</i>		
440 (1) (a)	Geographical distribution of relevant credit exposures	Barclays' countercyclical buffer is currently set at 0% for UK exposures. In other jurisdictions where CCyB is being applied, Barclays does not have material relevant exposures. See page 219 / Table 104 for geographic distribution of relevant exposures
440 (1) (b)	Amount of the institution specific countercyclical capital buffer	
440 (2)	EBA will issue technical implementation standards related to 440 (1)	Barclays will comply with the standards once applicable

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
<i>Indicators of global systemic importance</i>		
441 (1)	Disclosure of the indicators of global systemic importance	Discussed on page 8
441 (2)	EBA will issue technical implementation standards related to 441 (1)	Barclays will comply with the standards once applicable
<i>Credit risk adjustments</i>		
442 (a)	Disclosure of bank's definitions of past due and impaired	Pages 162 - 167 provide a complete description of credit quality measures
442 (b)	Approaches for calculating credit risk adjustments	Pages 159 - 176
442 (c)	Disclosure of pre-CRM EAD by exposure class	See points 442 (d), (e), (f) below which break down this total
442 (d)	Disclosures of pre-CRM EAD by geography and exposure class	Pages 52 / Table 33: Geographic analysis of credit exposure
442 (e)	Disclosures of pre-CRM EAD by industry and exposure class	Pages 56 / Table 34: Industry analysis of credit exposure
442 (f)	Disclosures of pre-CRM EAD by residual maturity and exposure class	Pages 60 / Table 35 Residual maturity analysis credit exposures
442 (g)	Breakdown of impaired, past due, specific and general credit adjustments, and impairment charges for the period, by exposure class or counterparty type	Page 218 / Table 102: Analysis of impaired and past due exposures and allowance for impairment by exposure type
442 (g) (i)		
442 (g) (ii)		
442 (g) (iii)		
442 (h)	Impaired, past due exposures, by geographical area, and amounts of specific and general impairment for each geography	Page 218 / Table 103: Geographic analysis of impaired and past due exposures and allowance for impairment
442 (i)	Reconciliation of changes in specific and general credit risk adjustments	Page 103 / Table 62: Analysis of movement on impairment and amounts taken directly to profit and loss
442 (i) (i)		
442 (i) (ii)		
442 (i) (iii)		
442 (i) (iv)		
442 (i) (v)		Page 104 / Table 63: Regulatory adjustments to statutory impairment
442 endnote	Specific credit risk adjustments recorded to income statement are disclosed separately	Page 103 / Table 62: Analysis of movement on impairment and amounts taken directly to profit and loss
<i>Unencumbered assets</i>		
443	Disclosures on unencumbered assets	See pages 221-223: Disclosures on asset encumbrance.
<i>Use of ECAIs</i>		
444 (a)	Names of the ECAIs used in the calculation of standardised approach RWAs, and reasons for any changes	Page 68
444 (b)	Exposure classes associated with each ECAI	Page 68
444 (c)	Explanation of the process for translating external ratings into credit quality steps	Page 68
444 (d)	Mapping of external rating to credit quality steps	Page 68 / Table 40: Relationship of long-term external credit ratings to credit quality steps under the standardised approach
		Page 68 / Table 41: Credit quality steps and risk weights under the standardised approach
444 (e)	Exposure value pre- and post-credit risk mitigation, by credit quality step	Pages 69 / Table 42: Credit quality step analysis of pre-CRM exposure and capital deductions under the standardised approach
		Page 71 / Table 43: Credit quality step analysis of post-CRM exposure and capital deductions under the standardised approach

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>	
<i>Exposure to market risk</i>			
445	Disclosure of position risk, large exposures exceeding limits, FX, settlement and commodities risk	Page 130 / Table 86: Market risk own funds requirements	
<i>Operational risk</i>			
446	Disclosure of the scope of approaches used to calculate operational risk, discussion of advanced methodology and external factors considered	Page 146 / Table 97	
<i>Exposure in equities not included in the trading book</i>			
447 (a)	Differentiation of exposures based on objectives	Page 108 / Table 68: Fair value of gains and losses on equity investments	
447 (b)	Recorded and fair value, and actual prices of exchange traded equity where it differs from fair value		
447 (c)	Types, nature and amounts of the relevant classes of equity exposures		
447 (d)	Realised cumulative gains and losses on sales over the period		
447 (e)	Total unrealised gains/losses, latent revaluation gains/losses, and amounts included within Tier 1 capital		
<i>Exposure to interest rate risk on positions not included in the trading book</i>			
448 (a)	Nature of risk and key assumptions in measurement models	Model assumptions on page 205.	
448 (b)	Variation in earnings or economic value, or other measures used by the bank from upward and downward shocks to interest rates, by currency	Page 43 / Table 26: Net interest income sensitivity (AEaR) by business unit Page 44 / Table 27: Net interest income sensitivity (AEaR) by currency	
<i>Exposure to securitisation positions</i>			
449	Exposure to securitisations positions.	Pages 189 - 192	
449 (a)	Objectives in relation to securitisation activity		
449 (b)	Nature of other risks in securitised assets, including liquidity		
449 (c)	Risks in re-securitisation activity stemming from seniority of underlying securitisations and ultimate underlying assets		
449 (d)	The roles played by institutions in the securitisation process		
449 (e)	Indication of the extent of involvement in these roles		
449 (f)	Processes in place to monitor changes in credit and market risks of securitisation exposures, and how the processes differ for re-securitisation exposures		
449 (g)	Description of the institution's policies with respect to hedging and unfunded protection, and identification of material hedge counterparties		
449 (h)	Approaches to calculation of RWA for securitisations mapped to types of exposures		Page 191 "Rating methodologies, ECAs and RWA calculations"
449 (i)	Types of SSPEs used to securitise third-party exposures, and list of SSPEs		Page 190 "Sponsoring conduit vehicles"

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
449 (j)	Summary of accounting policies for securitisations:	Page 192 "Summary of the accounting policies for securitisation activities"
449 (j) (i)	Treatment of sales or financings	
449 (j) (ii)	Recognition of gains on sales	
449 (j) (iii)	Approach to valuing securitisation positions	
449 (j) (iv)	Treatment of synthetic securitisations	
449 (j) (v)	Valuation of assets awaiting securitisations	
449 (j) (vi)	Recognition of arrangements that could require the bank to provide support to securitised assets	
449 (k)	Names of ECAIs used for securitisations	Page 191
449 (l)	Full description of Internal Assessment Approach	
449 (m)	Explanation of changes in quantitative disclosures	Satisfied throughout; we comment on every quantitative table in the securitisation section
449 (n)	Banking and trading book securitisation exposures	
449 (n) (i)	Amount of outstanding exposures securitised	Page 137 / Table 92: Outstanding amount of exposures securitised – Asset value and impairment charges
449 (n) (ii)	On balance sheet securitisation retained or purchased, and off-balance sheet exposures	Page 139 / Table 93: Securitisation exposures – by exposure class
449 (n) (iii)	Amount of assets awaiting securitisation	Page 135 / Table 90: Assets awaiting securitisation
449 (n) (iv)	Early amortisation treatment; aggregate drawn exposures, capital requirements	There is no applicable data to be published in respect of this table. See page 133
449 (n) (v)	Deducted or 1250% risk weighted securitisation positions	Page 141
449 (n) (vi)	Amount of exposures securitised and recognised gains or losses on sales	Page 135 / Table 90: Securitisation activity during the year
449 (o)	Banking and trading book securitisations by risk band:	
449 (o) (i)	Retained and purchased exposure and associated capital requirements, broken down by risk-weight bands	Page 141 / Table 94: Securitisation exposures – by capital approach
449 (o) (ii)	Retained and purchased re-securitisation exposures before and after hedging and insurance; exposure to financial guarantors broken down by guarantor credit worthiness	There is no applicable data to be published in respect of this table. See page 133
449 (p)	Impaired assets and recognised losses related to banking book securitisations, by exposure type	Page 137 / Table 92: Outstanding amount of exposures securitised – Asset value and impairment charges
449 (q)	Exposure and capital requirements for trading book securitisations, separately into traditional	
449 (r)	Whether the institution has provided financial support to securitisation vehicles	There is no applicable data to publish in respect of this table - no support was provided in 2021
<i>Remuneration disclosures</i>		
450	Remuneration	Appendix E contains the remuneration awards made to Barclays' Material Risk Takers. See the Directors' remuneration report (DRR) of the 2021 Annual Report for other remuneration disclosures



## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
<i>Leverage</i>		
451 (1) (a)	Leverage ratio, and breakdown of total exposure measure, including reconciliation to financial statements, and derecognised fiduciary items	Page 31 / Table 17: Leverage ratio common disclosure
451 (1) (b)		
451 (1) (c)		
451 (1) (d)	Description of the risk management approach to mitigate excessive leverage, and factors that impacted the leverage ratio during the year	See page 197, management of capital risk
451 (1) (e)		
451 (2)	EBA to publish implementation standards for points above	Barclays follows the implementation standards
<i>Use of the IRB approach to credit risk</i>		
452 (a)	Permission for use of the IRB approach from authority	Page 10 / Table 1
452 (b)	Explanation of:	
452 (b) (i)	Internal rating scales, mapped to external ratings	Page 73 / Table 44: Internal default grade probabilities and mapping to external ratings
452 (b) (ii)	Use of internal ratings for purposes other than capital requirement calculations	Page 169 "Applications of internal ratings"
452 (b) (iii)	Management and recognition of credit risk mitigation	Pages 177 - 179
452 (b) (iv)	Controls around ratings systems	Pages 205 - 207 . "Management of model risk within Barclays – the control mechanisms for the rating system"
452 (c)	Description of ratings processes for each IRB asset class, provided separately	Pages 169 - 171 . Separate descriptions apply to retail and wholesale classes collectively; hence this is not repeated for each separate class  Page 172 / Table 98: IRB credit risk models selected features
452 (c) (i)		
452 (c) (ii)		
452 (c) (iii)		
452 (c) (iv)		
452 (c) (v)		
452 (d)	Exposure values by advanced IRB exposure class, separately for advanced IRB and foundation IRB	This is shown throughout the report
452 (e)	For wholesale exposure classes, disclosed separately by obligor grade:	
452 (e) (i)	Total exposure, separating loans and undrawn exposures where applicable	Page 74 / Table 45: IRB wholesale obligor grade disclosure for central governments & central banks
452 (e) (ii)	Exposure-weighted average risk weight	Page 75 / Table 46: IRB wholesale obligor grade disclosure for institutions
452 (e) (iii)	Undrawn commitments and average exposure values by asset class	Page 76 / Table 47: IRB wholesale obligor grade disclosure for corporates
452 (f)	For retail exposure classes, same disclosures as under 452 (e), by risk grade or EL grade	Page 77 / Table 48: IRB retail obligor grade disclosure for SME Page 81 / Table 51: IRB retail obligor grade disclosure for secured retail Page 82 / Table 52: IRB retail obligor grade disclosure for revolving retail Page 83 / Table 53: IRB retail obligor grade disclosure for other retail exposures
452 (g)	Actual specific risk adjustments for the period and explanation of changes	Page 107 / Table 67: Analysis of expected loss versus actual losses for AIRB exposures
452 (h)	Commentary on drivers of losses in preceding period	

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
452 (i)	Disclosure of predicted against actual losses for sufficient period, and historical analysis to help assess the performance of the rating system over a sufficient period	Page 107 / Table 67: Analysis of expected loss versus actual losses for IRB exposures Page 174 / Table 99: Analysis of expected performance versus actual results
452 (j)	For all IRB exposure classes:	
452 (j) (i)	Where applicable, PD and LGD by each country where the bank operates	Appendix A, Page 215 / Table 101: PD, LGD, RWA and Exposure by country
452 (j) (ii)		
<i>Use of credit risk mitigation techniques</i>		
453 (a)	Use of on- and off-balance sheet netting	Page 178
453 (b)	How collateral valuation is managed	Pages 178 - 179
453 (c)	Description of types of collateral used by Barclays	Page 178
453 (d)	Types of guarantor and credit derivative counterparty, and their creditworthiness	Page 179
453 (e)	Disclosure of market or credit risk concentrations within risk mitigation exposures	Pages 178 - 179
453 (f)	For exposures under either the standardised or advanced IRB approach, disclose the exposure value covered by eligible collateral	Page 64 / Table 36: Exposures covered by guarantees and credit derivatives
453 (g)	Exposures covered by guarantees or credit derivatives	
<i>Use of the Advanced Measurement Approaches to operational risk</i>		
454	Description of the use of insurance or other risk transfer mechanisms to mitigate operational risk	Pages 178 - 179
<i>Use of internal market risk models</i>		
455 (a) (i)	Disclosure of the characteristics of the market risk models	Page 185 / Table 100: Market risk models selected features
455 (a) (ii)	Disclosure of the methodology and description of all-price risk measure and incremental risk charge	Pages 184 - 185
455 (a) (iii)	Descriptions of stress tests applied to the portfolios	Page 183
455 (a) (iv)	Methodology for back-testing and validating the models	Pages 186
455 (b)	Scope of permission for use of the models.	Page 11 / Table 2: The scope of the standardised and IRB approaches
455 (c)	Policies and processes to determine which exposures are to be included in the trading book, and to comply with prudential valuation requirements	Page 183 - 184
455 (d)	High/Low/Mean values over the year of VaR, sVaR, all-price risk measure and incremental risk charge	Page 127 / Table 83: The daily average, maximum and minimum values of management VaR Page 128 / Table 84: Analysis of regulatory VaR, SVaR, IRC and All Price Risk Measure
455 (d) (i)		
455 (d) (ii)		
455 (d) (iii)		
455 (e)	The elements of the own fund calculation	Page 130 / Table 86: market risk own funds requirements
455 (f)	Weighted average liquidity horizons of portfolios covered by models	Disclosed in model discussions on page 185
455 (g)	Comparison of end-of-day VaR measures compared with one-day changes in portfolio's value	Page 186

## Appendices

### Appendix F - Compliance to Pillar 3 requirements continued

<i>CRR ref.</i>	<i>High-level summary</i>	<i>Compliance reference</i>
<i>Disclosure of own funds and eligible liabilities</i>		
437a (a)	Composition of own funds and eligible liabilities ranking in the creditor hierarchy main features	Page 35 / Tables 20: TLAC composition for G-SIBs
437a (b)		Standalone document: Summary of terms and conditions of own funds and eligible liabilities
437a (c)		Pages 36 / Table 21: TLAC 3 - Resolution entity - Creditor ranking at legal entity level
437a (d)		Pages 37-38 / Table 22-23: TLAC 2 - Material subgroup entity - Creditor ranking at legal entity level
<i>Disclosure of key metrics</i>		
447 (h)	Disclosure of key metrics for own funds and eligible liabilities	Page 34 / Table 19: KM2 - Key metrics - TLAC requirements (at resolution group level)

## Appendices

## Appendix G - EBA and BCBS reference

## EBA Pillar 3 compliance reference

Table no	Page	High-level summary	Compliance reference
Table 3	12	Present an outline of the difference in the basis of consolidation for accounting and prudential purposes	Template EU LI1 Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories in accordance with Article 436(b) in the CRR
Table 4	13	Main sources of differences between regulatory exposure amounts and carrying values in financial statements	Template EU LI2 Present the main sources of differences between the financial statements' carrying value amounts and the exposure amounts used for regulatory purposes in accordance with Article 436(c) in the CRR
Table 5	14	Outline of the differences in the scopes of consolidation (entity by entity)	Template EU LI3 Provide information on the consolidation method applied for each entity within the accounting and the regulatory scopes of consolidation in accordance to Article 436 (b)
Table 6	16	Provide an overview of prudential regulatory metrics	Template KM1 Present an overview of prudential regulatory metrics as per the BCBS Pillar 3 disclosure requirements –consolidated and enhanced framework
Table 7	17	Shows the components of regulatory capital	Template CC1 Provides details of the composition of regulatory capital and includes information on the linkages with the reconciliation disclosures in Template CC2 and additional rows for the Committee's TLAC holdings standard
Table 8	20	Reconciliation between the scope of a bank's accounting consolidation and the scope of its regulatory consolidation	Template CC2 Provides a reconciliation between the scope of a bank's accounting consolidation and the scope of its regulatory consolidation and includes the linkage with composition of regulatory capital in Template CC1
Table 9	23	Key ratios with and without transitional arrangements for IFRS 9	Template EU IFRS 9/Article468-FL Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs
Table 11	26	Overview of risk weighted assets by risk type and capital requirements	Template EU OV1 RWAs and minimum capital requirements under Part Three, Title I, Chapter 1 of the CRR. In accordance with Article 438(c)to (f) in the CRR
Table 13	28	Flow statement explaining variations in the credit risk-weighted assets (RWA) under an IRB approach and the corresponding capital requirements	Template EU CR8 Present a flow statement explaining variations in the credit RWAs of exposures for which the risk-weighted amount is determined in accordance with Part Three, Title II, Chapter 3 of the CRR and the corresponding capital requirement as specified in Article 92(3)(a).
Table 14	28	Flow statement explaining variations in the counterparty credit risk-weighted assets (RWA) under the IMM approach and the corresponding capital requirements	Template EU CCR7 Present a flow statement explaining changes in the CCR RWAs determined under the IMM for CCR (derivatives and SFTs) in accordance with Part Three, Title II, Chapter 6 of the CRR.
Table 15	28	Flow statement explaining variations in the market risk-weighted assets (RWA) under the IMA approach and the corresponding capital requirements	Template EU MR2-B Present a flow statement explaining variations in the market RWAs (as specified in Article 92(4)(b)) determined under an Part Three, Title IV, Chapter 5 of the CRR (IMA).
Table 16	30	Summary reconciliation of accounting assets and leverage ratio exposures	Template LRSum Reconciliation of the total leverage exposure and comprises of total IFRS assets used for statutory purposes, regulatory consolidation and other leverage adjustments (as per Commission implementing regulation-EU 2016/200)

## Appendices

### Appendix G - EBA and BCBS reference continued

Table no	Page	High-level summary	Compliance reference
Table 17	31	Leverage ratio common disclosure	<p>Template LRCom</p> <p>Leverage ratio calculation and includes additional breakdowns for the leverage exposure measure (as per Commission implementing regulation-EU 2016/200)</p>
Table 18	33	Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)	<p>Template LRSpl</p> <p>Breakdown of the on-balance sheet exposures excluding derivatives, SFTs and exempted exposures, by asset class as per row 1 on LRCom (as per Commission implementing regulation-EU 2016/200)</p>
Table 19	34	Provide an overview of key metrics for own funds and eligible liabilities	<p>Template KM2: Key metrics</p> <p>Present an overview of key metrics for own funds and eligible liabilities as per the BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework</p>
Table 20	35	Provides details of the TLAC positions of G-SIB resolution groups	<p>Template TLAC 1</p> <p>Provides the composition of G-SIB's own funds and eligible liabilities and ratios as per the BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework</p>
Table 21	36	Provides details of nominal values of capital and liabilities and the position in the creditor hierarchy for the resolution entity	<p>Template TLAC 3</p> <p>Provide creditors with information regarding their ranking in the liabilities structure of each G-SIB resolution entity as per the BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework</p>
Table 22-23	37-38	Provides details of nominal values of capital and liabilities and the position in the creditor hierarchy for the material subgroup entities	<p>Template TLAC 2</p> <p>Provide creditors with information regarding their ranking in the liabilities structure of a material subgroup entity (ie an entity that is part of a material subgroup) which has issued internal TLAC to a G-SIB resolution entity as per the BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework</p>
Table 24	39	Present the breakdown of a bank's cash outflows and cash inflows, as well as its available high-quality liquid assets (HQLA)	<p>Template LIQ1</p> <p>Present the breakdown of a bank's cash outflows and cash inflows, as well as its available high-quality liquid assets (HQLA), as measured and defined according to the LCR standard (BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework)</p>
Table 29	45	Present the breakdown of PVA for all assets measured at fair value (marked to market or marked to model) and for which PVA are required	<p>Template PV1</p> <p>Present a breakdown of the constituent elements of the bank's PVA according to the requirements of BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework</p>
Table 31	49	Total and average net amount of exposures	<p>Template EU CRB-B</p> <p>Provide the total and the average amount of net exposures over the period by exposure class in accordance with Article 442(c)</p>
Table 33	52	Geographical breakdown of exposures Purpose: Provide a breakdown of exposures by geographical areas and	<p>Template EU CRB-C</p> <p>Provide a breakdown of exposures by geographical areas and exposure classes in accordance with Article 442(d)</p>
Table 34	56	Concentration of exposures by industry or counterparty types	<p>Template EU CRB-D</p> <p>Provide a breakdown of exposures by industry or counterparty types and exposure classes in accordance with Article 442(e)</p>
Table 35	60	Maturity of exposures	<p>Template EU CRB-E</p> <p>Provide a breakdown of net exposures by residual maturity and exposure classes in accordance with Article 442(f)</p>

## Appendices

### Appendix G - EBA and BCBS reference continued

Table no	Page	High-level summary	Compliance reference
Table 37	65	Disclose the extent of the use of CRM techniques	<p>Template EU CR3</p> <p>Present information on exposure value covered by financial collateral, other collateral, guarantees and credit derivatives and the outstanding secured exposures and the secured amount within those exposures in accordance with Article 453(f) and (g)</p>
Table 38	66	Credit risk exposure and CRM effects	<p>Template EU CR4</p> <p>Paragraph 99 of the guidelines requires institutions to show the effect of all CRM techniques applied in accordance with Part Three, Title II, Chapter 4 of the CRR, including the financial collateral simple method and the financial collateral comprehensive method in the application of Article 221 and Article 22 of the same regulation on standardised approach capital requirements' calculations</p>
Table 39	67	This table provides the effect on the RWAs of credit derivatives used as CRM techniques	<p>Template EU CR7</p> <p>The template applies to all institutions using one of the approaches included in the template in accordance with Article 153(5) or Article 155(2)</p>
Table 42	69	Analysis of credit risk exposures by asset classes and risk weight before the application of CCF and CRM under the standardised approach	<p>Template EU CR5A</p> <p>Regulatory exposure values broken down by risk weights. Institutions should disclose exposures pre conversion factor and pre risk mitigation techniques. The risk weight used for the breakdown corresponds to the different credit quality steps applicable in accordance with Article 113 to Article 134 in Part Three, Title II, Chapter 2 of the CRR</p>
Table 43	71	Analysis of credit risk exposures by asset classes and risk weight after the application of CCF and CRM under the standardised approach	<p>Template EU CR5B</p> <p>Regulatory exposure values broken down by risk weights. Institutions should disclose exposures post conversion factor and post risk mitigation techniques. The risk weight used for the breakdown corresponds to the different credit quality steps applicable in accordance with Article 113 to Article 134 in Part Three, Title II, Chapter 2 of the CRR</p>
Table 45-48 & Table 50-53	74-77 & 80-83	Analysis of credit risk exposures by exposure classes and PD grades	<p>Template EU CR6</p> <p>In the application of Article 452(e) and (g), this template applies to institutions included in paragraph 7 of these guidelines using either the FIRB approach or the AIRB approach for some or all of their exposures in accordance with Part Three, Title II, Chapter 3 of the CRR</p>
Table 49	78-79	This table provides a quantitative disclosure of counterparty credit risk specialised lending and equity exposures using the simple risk weight approach	<p>Template EU CR10 (CR)</p> <p>The template applies to all institutions using one of the approaches included in the template in accordance with Article 153(5) or Article 155(2)</p>
Table 54	84	This table provides Credit quality of exposures by exposure class and instrument	<p>Template EU CR1-A</p> <p>The effect of credit derivatives on the IRB approach capital requirements' calculations. The pre-credit derivative RWAs before taking account of the credit derivatives mitigation effect has been selected to assess the impact of credit derivatives on RWAs in accordance Article 453(g)</p>
Table 55	88	This table present credit quality of exposures by industry or counterparty types	<p>Template EU CR1-B</p> <p>Provide a comprehensive picture of the credit quality of an institution's on-balance sheet and off-balance sheet exposures by industry in accordance with Article 442(g)</p>
Table 56	90	Credit quality of exposures by geography	<p>Template EU CR1-C</p> <p>Provide a comprehensive picture of the credit quality of an institution's on-balance sheet and off-balance sheet exposures by geography in accordance with Article 442(h)</p>
Table 57	92	Analysis of credit quality of forborne exposures	<p>Provide an overview of the quality of forborne exposures as per Commission Implementing Regulation (EU) No 680/2014</p>

## Appendices

### Appendix G - EBA and BCBS reference continued

Table no	Page	High-level summary	Compliance reference
Table 58	94	Analysis of credit quality of performing and non-performing exposures by past due days	Provide an overview of credit quality of non-performing exposures, as per Commission Implementing Regulation (EU) No 680/2014
Table 59	98	Analysis of Performing and non-performing exposures and related provisions	Provide an overview of the credit quality of non-performing exposures and related impairments, provisions and valuation adjustments by portfolio and exposure class per EBA guideline EBA/GL/2018/10
Table 60	102	Analysis of Collateral obtained by taking possession and execution processes	Provide an overview of foreclosed assets obtained from non-performing exposures per EBA guideline EBA/GL/2018/10
Table 61	103	Changes in the stock of defaulted and impaired loans and debt securities	Template EU CR2-B This table present the changes in an institution's stock of defaulted loans and debt securities in accordance to Article 442(i) of the CRR
Table 62	103	Table present changes in the stock of general and specific credit risk adjustments	Template EU CR2-A This table present the changes in an institution's stock of defaulted loans and debt securities in accordance to Article 442(i) of the CRR
Table 63	104	Loans and advances subject to legislative and non-legislative moratoria	This table provides an overview of the credit quality of loans and advances subject to moratoria or 'payment deferrals' on loan repayments applied in the light of the COVID-19 crisis, in accordance with the FCA guidance on payment deferrals, the PRA Dear CEO letter of 26 March 2020 on 'Covid-19: IFRS 9, capital requirements and loan covenants' and the PRA Dear CEO letter of 4 June 2020 on 'Covid-19: IFRS 9 and Capital Requirements - Further guidance on initial and further payment deferrals'
Table 64	105	Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria	This table provides an overview of the volume of loans and advances subject to legislative and non-legislative moratoria or 'payment deferrals' on loan repayments applied in light of the COVID-19 crisis, in accordance with the FCA guidance on payment deferrals, the PRA Dear CEO letter of 26 March 2020 on 'Covid-19: IFRS 9, capital requirements and loan covenants' and the PRA Dear CEO letter of 4 June 2020 on 'Covid-19: IFRS 9 and Capital Requirements - Further guidance on initial and further payment deferrals', by residual maturity of these moratoria
Table 65	105	Newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis	This table provides an overview of the stock of newly originated loans and advances subject to public guarantee schemes introduced in response to COVID-19 crisis
Table 70	112	Analysis of counterparty credit risk exposures by approach	Template EU CCR1 This table presents a comprehensive view of the methods used to calculate CCR regulatory requirements and the main parameters used within each method in accordance with Article 439(e), (f) and (i) of the CRR
Table 71	113	Analysis of counterparty credit risk exposures by regulatory portfolio and risk weight under standardised approach	Template EU CCR3 This applies to institution using the credit risk standardised approach to compute RWAs for CCR exposures in accordance with Article 107 in the CRR, irrespective of the approach used to determine EAD in accordance with Part Three, Title II, Chapter 6 of the same regulation
Table 72-74	115-117	Analysis of counterparty credit risk exposures by exposure classes and PD grades	Template EU CCR4 RWAs and parameters used in RWA calculations for exposures subject to the CCR framework (excluding CVA charges or exposures cleared through a CCP) and where the credit risk approach used (in accordance with Article 107 in the CRR) to compute RWAs is an IRB approach

## Appendices

### Appendix G - EBA and BCBS reference continued

Table no	Page	High-level summary	Compliance reference
Table 75	118	This table provides a quantitative disclosure of counterparty credit risk specialised lending and equity exposures using the simple risk weight approach	<p>Template EU CR10 (CCR)</p> <p>The template applies to all institutions using one of the approaches included in the template in accordance with Article 153(5) or Article 155(2)</p>
Table 76	120	This table shows the impact of netting and collateral held on exposure values	<p>Template EU CCR5A</p> <p>Provide an overview of the impact of netting and collateral held on exposures for which the exposure value is measured in accordance with in accordance with Article 439 (e)</p>
Table 77	120	This table shows the composition of collateral for exposures to CCR	<p>Template EU CCR5B</p> <p>Provide a breakdown of all types of collateral (cash, sovereign debt, corporate bonds, etc.) posted or received by banks to support or reduce CCR exposures related to derivative transactions or to SFTs, including transactions cleared through a CCP</p>
Table 79	122	This table shows credit derivatives exposures	<p>Template EU CCR6</p> <p>Provide a breakdown extent of an institution's exposures to credit derivative transactions broken down between derivatives bought or sold in accordance with Article 439(g) and (h)</p>
Table 80	123	This table shows the EAD and RWAs corresponding to exposures to central counterparties	<p>Template EU CCR8</p> <p>Provide a comprehensive picture of the institution's exposures to CCPs in the scope of Part Three, Title II, Chapter 6, Section 9 of the CRR</p>
Table 81	124	This table provide CVA regulatory calculations (with a breakdown by standardised and advanced approaches)	<p>Template EU CCR2</p> <p>The template applies to all institutions with exposures subject to CVA capital charges in accordance with Part Three, Title VI, Article 382 in the CRR</p>
N/A	186	Present a comparison of the results of estimates from the regulatory VaR model	<p>Template EU MR4</p> <p>Present a comparison of the results of estimates from the regulatory VaR model approved in application of Part Three, Title IV, Chapter 5 of Regulation (EU) 575/2013 with both hypothetical and actual trading outcomes, to highlight the frequency and the extent of the backtesting exceptions, and to give an analysis of the main outliers in backtested results</p>
Table 84	128	This template display the values (maximum, minimum, average and the ending for the reporting period) resulting from the different types of models approved to be used for computing the market risk regulatory capital charge at the group level before any additional capital charge is applied	<p>Template EU MR3</p> <p>Outputs of internal models approved for use in accordance with Part Three, Title IV, Chapter 5 of the CRR for regulatory capital purposes at the group level (according to the scope of regulatory consolidation as per Part One, Title II of the same regulation)</p>
Table 87	131	Market risk under standardised approach	<p>Template MR1</p> <p>Capital requirements and RWAs (as specified in Article 92(4)(b) in the CRR)</p>
Table 88	131	Market risk under internal models approach	<p>Template MR2-A</p> <p>Capital requirements and RWAs (as specified in Article 92(4)(b) of the CRR)</p>
Table 99	174	This table provides backtesting data to validate the reliability of PD calculations	<p>Template EU CR9</p> <p>The template applies to all institutions included in paragraph 7 of these guidelines using the AIRB approach and/or the FIRB approach. Where an institution makes use of an FIRB approach for certain exposures and an AIRB approach for others, it must disclose two separate sets of portfolio breakdowns in separate templates</p>
Table 104	219	This table provide a geographical distribution of credit exposures by country	<p>CCyB Template requires institutions to disclose the geographical distribution by country of credit exposures of an institution that are relevant for the calculation of its CCyB in accordance with Article 140(4) of the CRD and Article 440 of CRR</p>



## Appendices

# Location of risk disclosures

### Barclays' Risk disclosures are located across the Annual Report and Pillar 3 Report.

		Annual Report	Pillar 3 Report
<b>Risk management strategy</b>	<ul style="list-style-type: none"> <li>■ Enterprise Risk Management Framework (ERMF)</li> <li>■ Segregation of duties – the “Three Lines of Defence” model</li> <li>■ Principal risks</li> <li>■ Risk appetite for the principal risks</li> <li>■ Risk committees</li> <li>■ Frameworks, policies and standards</li> <li>■ Assurance</li> <li>■ Effectiveness of risk management arrangements</li> <li>■ Learning from our mistakes</li> <li>■ Barclays' risk culture</li> <li>■ Group-wide risk management tools</li> <li>■ Risk management in the setting of strategy</li> </ul>	202	150
Overview of Barclays' approach to risk management. A detailed overview together with more specific information on policies that the Group determines to be of particular significance in the current operating environment can be found in the Barclays PLC Annual Report 2021 or at <a href="https://www.barclays.com">barclays.com</a>		202	150
<b>Material existing and emerging risks</b>	<ul style="list-style-type: none"> <li>■ Material existing and emerging risks potentially impacting more than one principal risk</li> <li>■ Credit risk</li> <li>■ Market risk</li> <li>■ Treasury and capital risk</li> <li>■ Operational risk</li> <li>■ Model risk</li> <li>■ Conduct risk</li> <li>■ Reputation risk</li> <li>■ Legal risk and legal, competition and regulatory matters</li> </ul>	204	n/a
Insight into the level of risk across our business and portfolios, the material existing and emerging risks and uncertainties we face and the key areas of management focus.		209	n/a
<b>Climate change risk management</b>	<ul style="list-style-type: none"> <li>■ Overview, organisation and structure</li> <li>■ Risk management policy</li> </ul>	210	n/a
Overview of Barclays' approach to managing climate change risk.		210	n/a
<b>Principal risk management</b>	<ul style="list-style-type: none"> <li>■ Credit risk management</li> <li>■ Management of credit risk mitigation techniques and counterparty credit risk</li> <li>■ Market risk management</li> <li>■ Management of securitisation exposures</li> <li>■ Treasury and capital risk management</li> <li>■ Operational risk management</li> <li>■ Model risk management</li> <li>■ Conduct risk management</li> <li>■ Reputation risk management</li> <li>■ Legal risk management</li> </ul>	211	n/a
Barclays' approach to risk management for each principal risk with focus on organisation and structure and roles and responsibilities.		213	n/a
		214	n/a
		214	n/a
		215	n/a
		216	n/a
		217	n/a
		218	159
		n/a	177
		219	180
		n/a	189
		220	193
		221	201
		222	205
		223	208
		223	210
		223	212

## Appendices

### Location of risk disclosures continued

		Annual Report	Pillar 3 Report
<b>Risk performance</b>			
<b>Credit risk:</b> 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.	<ul style="list-style-type: none"> <li>■ Credit risk overview and summary of performance</li> <li>■ Maximum exposure and effects of netting, collateral and risk transfer</li> <li>■ Expected Credit Losses</li> <li>■ Movements in gross exposure and impairment allowance including provisions for loan commitments and financial guarantees</li> <li>■ Management adjustments to models for impairment</li> <li>■ Measurement uncertainty and sensitivity analysis</li> <li>■ Analysis of the concentration of credit risk</li> <li>■ The Group's approach to management and representation of credit quality</li> <li>■ Analysis of specific portfolios and asset types</li> <li>■ Forbearance</li> <li>■ Analysis of debt securities</li> <li>■ Analysis of derivatives</li> </ul>	<p>225</p> <p>225</p> <p>228</p> <p>232</p> <p>237</p> <p>239</p> <p>248</p> <p>250</p> <p>254</p> <p>257</p> <p>259</p> <p>260</p>	<p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p>
<b>Market risk:</b> 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.	<ul style="list-style-type: none"> <li>■ Market Risk overview and summary of performance</li> <li>■ Balance sheet view of trading and banking books</li> <li>■ Review of management measures</li> <li>■ Review of regulatory measures</li> </ul>	<p>261</p> <p>n/a</p> <p>261</p> <p>n/a</p>	<p>125</p> <p>126</p> <p>127</p> <p>128</p>
<b>Treasury and capital risk – Liquidity:</b> 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.	<ul style="list-style-type: none"> <li>■ Liquidity risk overview and summary of performance</li> <li>■ Liquidity risk stress testing</li> <li>■ Liquidity pool</li> <li>■ Funding structure and funding relationships</li> <li>■ Contractual maturity of financial assets and liabilities</li> <li>■ Asset encumbrance</li> </ul>	<p>265</p> <p>265</p> <p>267</p> <p>268</p> <p>271</p> <p>n/a</p>	<p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>221</p>
<b>Treasury and capital risk – Capital:</b> 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.	<ul style="list-style-type: none"> <li>■ Capital risk overview and summary of performance</li> <li>■ Regulatory minimum capital and leverage requirements</li> <li>■ Analysis of capital resources</li> <li>■ Analysis of risk weighted assets</li> <li>■ Analysis of leverage ratio and exposures</li> <li>■ Minimum requirement for own funds and eligible liabilities</li> <li>■ Foreign exchange risk</li> <li>■ Pension risk review</li> </ul>	<p>275</p> <p>275</p> <p>276</p> <p>278</p> <p>279</p> <p>280</p> <p>281</p> <p>282</p>	<p>n/a</p> <p>8</p> <p>17</p> <p>25</p> <p>30</p> <p>34</p> <p>41</p> <p>42</p>
<b>Treasury and capital risk – Interest rate risk in the banking book:</b> 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.	<ul style="list-style-type: none"> <li>■ Interest rate risk in the banking book overview and summary of performance</li> <li>■ Net interest income sensitivity</li> <li>■ Analysis of equity sensitivity</li> <li>■ Volatility of the fair value through other comprehensive income (FVOCI) portfolio in the liquidity pool</li> </ul>	<p>284</p> <p>284</p> <p>285</p> <p>285</p>	<p>43</p> <p>43</p> <p>44</p> <p>44</p>
<b>Operational risk:</b> 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.	<ul style="list-style-type: none"> <li>■ Operational risk overview and summary of performance</li> <li>■ Operational risk profile</li> </ul>	<p>286</p> <p>286</p>	<p>145</p> <p>147</p>
<b>Model risk:</b> The risk of the potential adverse consequences from financial assessments or decisions based on incorrect or misused model outputs and reports.	<ul style="list-style-type: none"> <li>■ Model risk overview and summary of performance</li> </ul>	<p>288</p>	<p>n/a</p>
<b>Conduct risk:</b> 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.	<ul style="list-style-type: none"> <li>■ Conduct risk overview and summary of performance</li> </ul>	<p>288</p>	<p>n/a</p>
<b>Reputation risk:</b> The risk that an action, transaction, investment, event, decision, or business relationship will reduce trust in the Group's integrity and/or competence.	<ul style="list-style-type: none"> <li>■ Reputation risk overview and summary of performance</li> </ul>	<p>288</p>	<p>n/a</p>

## Appendices

### Location of risk disclosures continued

		Annual Report	Pillar 3 Report
<b>Legal risk:</b> 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.	<ul style="list-style-type: none"> <li>■ Legal risk overview and summary of performance</li> </ul>	288	n/a
<b>Supervision and regulation</b>	<ul style="list-style-type: none"> <li>■ Supervision of the Group</li> <li>■ Global regulatory developments</li> <li>■ Financial regulatory framework</li> </ul>	289	n/a
The Group's operations, including its overseas offices, subsidiaries and associates, are subject to a significant body of rules and regulations.		289	n/a
		290	n/a
<b>Pillar 3 Report</b>	<ul style="list-style-type: none"> <li>■ Summary of risk and capital profile</li> <li>■ Notes on basis of preparation</li> <li>■ Scope of application of Basel rules</li> </ul>	n/a	3
Contains extensive information on risk as well as capital management.		n/a	5
		n/a	6
Risk and capital position review: Provides a detailed breakdown of Barclays' regulatory capital adequacy and how this relates to Barclays' risk management.	<ul style="list-style-type: none"> <li>■ Group capital resources, requirements, leverage and liquidity</li> <li>■ Analysis of credit risk</li> <li>■ Analysis of counterparty credit risk</li> <li>■ Analysis of market risk</li> <li>■ Analysis of securitisation exposures</li> <li>■ Analysis of operational risk</li> </ul>	n/a	15
		n/a	46
		n/a	109
		n/a	125
		n/a	132
		n/a	145

## Appendices

# Index of tables

Table		Page
Table 1	The scope of the standardised and AIRB approaches for credit and counterparty credit risk excluding CVA	10
Table 2	Summary of the scope of application of regulatory methodologies for CVA, market and operational risk	11
Table 3	LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories	12
Table 4	LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements	13
Table 5	LI3 Outline of the differences in the scopes of consolidation (entity by entity)	14
Table 6	KM1 – Key Metrics	16
Table 7	CC1 – Composition of Regulatory Capital	17
Table 8	CC2 – Reconciliation of regulatory capital to balance sheet	20
Table 9	IFRS 9/Article 468-FL – Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR	23
Table 10	Risk weighted assets by risk type and business	25
Table 11	OV1 – Overview of RWAs by risk type and capital requirements	26
Table 12	Movements in risk weighted assets	27
Table 13	CR8 – RWA flow statement of credit risk exposures under the AIRB approach	28
Table 14	CCR7 – RWA flow statement of counterparty credit risk exposures under the IMM	28
Table 15	MR2-B – RWA flow statement of market risk exposures under the IMA	28
Table 16	Summary reconciliation of accounting assets and leverage ratio exposures	30
Table 17	Leverage ratio common disclosure	31
Table 18	Split-up of on balance sheet exposures (excluding derivatives, SFTs, and exempted exposures)	33
Table 19	KM2 – Key metrics - TLAC requirements (at resolution group level)	34
Table 20	TLAC 1 – TLAC composition for G-SIBs (at resolution group level)	35
Table 21	TLAC 3 – Resolution entity - creditor ranking at legal entity level	36
Table 22	TLAC2 – Material subgroup entity - creditor ranking at legal entity level	37
Table 24	LIQ1 – Liquidity Coverage ratio	39
Table 25	Functional currency of operations	41
Table 26	Net interest income sensitivity (AEaR) by business unit	43
Table 27	Net interest income sensitivity (AEaR) by currency	44
Table 28	Analysis of equity sensitivity	44
Table 29	PV1 – Prudent valuation adjustment	45
Table 30	Credit risk exposures – Note on pre- and post- credit risk mitigation (CRM) EAD	47
Table 31	CRB-B Total and average net amount of exposures	49
Table 32	Detailed view of credit risk RWAs and capital requirements	50
Table 33	CRB-C Geographic analysis of credit exposure	52
Table 34	CRB-D – Concentration of exposures by industry	56
Table 35	CRB-E – Residual maturity analysis credit exposures	60
Table 36	Exposures covered by guarantees and credit derivatives	64
Table 37	CR3 – CRM techniques	65
Table 38	CR4 Standardised – Credit Risk exposure and CRM effect	66
Table 39	CR7 – Effect on RWA of credit derivatives used as CRM techniques (AIRB)	67
Table 40	Relationship of long-term external credit ratings to credit quality steps under the standardised approach for non-secured exposures	68
Table 41	Credit quality steps and risk weights under the standardised approach	68
Table 42	CR5-A Analysis of exposures by asset classes and risk weight pre-CCF and CRM under the standardised approach	69
Table 43	CR5-B Analysis of exposures by asset classes and risk weight post-CCF and CRM under the standardised approach	71
Table 44	Internal default grade probabilities and mapping to external ratings	73
Table 45	CR6 Credit risk exposures by exposure class and PD range for central governments and central banks	74

## Appendices

### Index of tables continued

Table		Page
Table 46	CR6 Credit risk exposures by exposure class and PD range for institutions	75
Table 47	CR6 Credit risk exposures by exposure class and PD range for corporates	76
Table 48	CR6 Credit risk exposures by exposure class and PD range for corporate of which: SMEs	77
Table 49	CR10 Corporate exposures subject to the slotting approach	78
Table 50	CR6 Credit risk exposures by exposure class and PD range for retail SME	80
Table 51	CR6 Credit risk exposures by exposure class and PD range for secured retail	81
Table 52	CR6 Credit risk exposures by exposure class and PD range for revolving retail	82
Table 53	CR6 Credit risk exposures by exposure class and PD range for other retail exposures	83
Table 54	CR1-A – Credit quality of exposures by exposure class and instrument	84
Table 55	CR1-B – Credit quality of exposures by industry or counterparty types	88
Table 56	CR1-C – Credit quality of exposures by geography	90
Table 57	Credit quality of forborne exposures	92
Table 58	Credit quality of performing and non-performing exposures by past due days	94
Table 59	Performing and non-performing exposures and related provisions	98
Table 60	Collateral obtained by taking possession and execution processes	102
Table 61	CR2-B – Changes in the stock of defaulted and impaired loans and debt securities	103
Table 62	CR2-A – Changes in the stock of general and specific credit risk adjustments	103
Table 63	Loans and advances subject to legislative and non-legislative moratoria	104
Table 64	Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria	105
Table 65	Newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis	105
Table 66	Regulatory adjustments to statutory Impairment	106
Table 67	Analysis of expected loss versus actual losses for AIRB exposures	107
Table 68	Fair value of and gains and losses on equity investments	108
Table 69	Detailed view of counterparty credit risk RWAs and capital requirements	110
Table 70	CCR1 – Analysis of CCR exposure by approach	112
Table 71	CCR3 Counterparty credit risk exposures by exposure classes and risk weight under standardised approach	113
Table 72	CCR4 Counterparty credit risk exposures by portfolio and PD range for central governments and central banks	115
Table 73	CCR4 Counterparty credit risk exposures by portfolio and PD range for institutions	116
Table 74	CCR4 Counterparty credit risk exposures by portfolio and PD range for corporates	117
Table 75	Counterparty Credit risk – Corporate exposures subject to the slotting approach	118
Table 76	CCR5-A – Impact of netting and collateral held on exposure values	120
Table 77	CCR5-B – Composition of collateral for exposures to CCR	120
Table 78	Notional exposure associated with credit derivative contracts	121
Table 79	CCR6 – Credit derivatives exposures	122
Table 80	CCR8 Exposures to CCPs	123
Table 81	CCR2 Credit valuation adjustment (CVA) capital charge	124
Table 82	Balance sheet split by trading and banking books	126
Table 83	The daily average, maximum and minimum values of management VaR	127
Table 84	MR3 - Analysis of Regulatory VaR, SVaR, IRC and CRM	128
Table 85	Breakdown of the major regulatory risk measures by portfolio	129
Table 86	Market risk own funds requirements	130
Table 87	MR1 – Market risk under standardised approach	131
Table 88	MR2-A – Market risk under internal models approach	131
Table 89	Reconciliation of positions and capital requirements relating to securitisations	134
Table 90	Securitisation activity during the year	135
Table 91	Assets awaiting securitisation	136
Table 92	Outstanding amount of exposures securitised – Asset value and impairment charges	137
Table 93	Securitisation positions – by exposure class	139
Table 94	Securitisation positions – by capital approach	141
Table 95	Aggregate amount of securitised positions retained or purchased by geography – banking book	143
Table 96	Aggregate amount of securitised positions retained or purchased by geography – trading book	144
Table 97	Operational risk – risk weighted assets	146

## Appendices

### Index of tables continued

<i>Table</i>		<i>Page</i>
Table 98	IRB credit risk models' selected features	172
Table 99	CR9 - Analysis of expected performance versus actual results	174
Table 100	Market risk models selected features	185
Table 101	PD, LGD, RWA and Exposure values by country for AIRB – all asset classes	215
Table 101a	PD, LGD, RWA and Exposure values by country for AIRB – central governments & central banks	215
Table 101b	PD, LGD, RWA and Exposure values by country for AIRB – institutions	215
Table 101c	PD, LGD, RWA and Exposure values by country for AIRB – corporates	216
Table 101d	PD, LGD, RWA and Exposure values by country for AIRB – SME retail	216
Table 101e	PD, LGD, RWA and Exposure values by country for AIRB – secured retail	216
Table 101f	PD, LGD, RWA and Exposure values by country for AIRB – revolving retail	217
Table 101g	PD, LGD, RWA and Exposure values by country for AIRB – other retail exposures	217
Table 102	Analysis of impaired and past due exposures and allowance for impairment by exposure type	218
Table 103	Geographic analysis of impaired and past due exposures and allowance for impairment	218
Table 104	Countercyclical capital buffer	219
No table no	Asset encumbrance	222
No table no	Remuneration	224
No table no	CRD IV reference	233

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](http://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. These 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 members of the management of the Group (including, without limitation, during management presentations to financial analysts) 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, income growth, assets, impairment charges, provisions, business strategy, capital, leverage and other regulatory ratios, capital distributions (including dividend pay-out ratios and expected payment strategies), projected levels of growth in the banking and financial markets, projected costs or savings, any commitments and targets (including, without limitation, ESG commitments and targets), estimates of capital expenditures, plans and objectives for future operations, projected employee numbers, IFRS impacts and other statements that are not historical fact. By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances.

The 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; the development of standards and interpretations under IFRS, including evolving practices with regard to the interpretation and application of accounting and regulatory standards, emerging and developing ESG reporting standards; the outcome of current and future legal proceedings and regulatory investigations; future levels of conduct provisions; the policies and actions of governmental and regulatory authorities; 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 the impact of competition. In addition, factors including (but not limited to) the following may have an effect: capital, leverage and other regulatory rules applicable to past, current and future periods; UK, US, Eurozone and global macroeconomic and business conditions; the effects of any volatility in credit markets; market related risks such as changes in interest rates and foreign exchange rates; effects of changes in valuation of credit market exposures; changes in valuation of issued securities; volatility in capital markets; changes in credit ratings of any entity within the Group or any securities issued by such entities; direct and indirect impacts of the coronavirus (COVID-19) pandemic; instability as a result of the UK's exit from the European Union ("EU"), the effects of the EU-UK Trade and Cooperation Agreement and the disruption that may subsequently result in the UK and globally; the risk of cyber-attacks, information or security breaches or technology failures on the Group's reputation, business or operations; and the success of future acquisitions, disposals and other strategic transactions. A number of these influences and factors are beyond the Group's

control. As a result, the Group's actual financial position, future results, capital distributions, capital, leverage or other regulatory ratios or other financial and non-financial metrics or performance measures or ability to meet commitments and targets may differ materially from the statements or guidance set forth in the Group's forward-looking statements. 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, our Annual Report on Form 20-F for the fiscal year ended 31 December 2021), which are available on the SEC's website at [www.sec.gov](http://www.sec.gov). Subject to Barclays' 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.

Growing. Together.

## Empowering ambition

Barclays is helping Thai restaurant group Gigging Squid deliver on its expansion ambitions.

After opening their first restaurant in 2009, Andy and Pranee Laurillard felt their existing bank couldn't provide the necessary expertise or funding to help them keep growing, so they turned to us. Our Corporate Banking team supported with the refinancing of three new restaurants in the Gigging Squid group, and worked with the Laurillards to introduce private equity. With our help, the couple were able to attract an additional £6.4m investment from the

Business Growth Fund. Gigging Squid was also named in the Sunday Times Fast Track 100, ranking it as one of the UK's fastest growing companies, a feat it went on to achieve four years in a row.

During the COVID-19 pandemic, Barclays helped Gigging Squid remain resilient, securing a £5m CBILS loan to provide vital liquidity when it was needed most. We also help them leverage the benefits of digital connectivity – from the integration with our iPortal service, to our ability to power its payment platforms and increase adoption of card payment technology.

This year the business plans to open further sites, growing its presence in the Midlands and North of England. Barclays' deep relationship with Gigging Squid, which now operates 42 restaurants and employs around 1,200 staff across the UK, remains critical to the outstanding customer experience it provides, and to its growth story.

*“ Barclays came through with an exciting proposal for us, and we've been able to grow on the back of the finance secured.*

**Andy and Pranee Laurillard**  
Co-Founders, Gigging Squid

### Barclays PLC Annual Report 2021

A detailed review of Barclays' 2021 performance with disclosures that provide useful insight and go beyond reporting requirements.

### Barclays PLC Climate-related Financial Disclosures 2021

A report aligning to the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in this, the fifth year of disclosure.

### Barclays PLC Pillar 3 Report 2021

A summary of our risk profile, its interaction with the Group's risk appetite, and risk management.

### Barclays PLC Fair Pay Report 2021

An overview of our approach to pay, including the principles and policies of our Fair Pay agenda.

### Barclays PLC Diversity & Inclusion Report 2021

An overview of the Group's approach to building a more inclusive company, including a progress report on each of our six pillars of diversity and inclusion.

### Barclays PLC Country Snapshot 2021

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.

Left: **Andy Laurillard & Pranee Laurillard**  
Co-Founders, Gigging Squid

Right: **Philip Richardson**  
Barclays Director, Hospitality & Leisure

