

Building the 'Go-To' bank



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A glossary of terms and remuneration disclosures can be found at: barclays.com/annualreport

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 certain of the Group's plans and its current goals and expectations relating to its future financial condition and performance. Barclays cautions readers that no forward-looking statement is a guarantee of future performance and that actual results 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. Examples of forward-looking statements include, among others, statements regarding the Group's future financial position, income growth, assets, impairment charges and provisions, business strategy, capital, leverage and other regulatory ratios, payment of dividends (including dividend pay-out ratios), projected levels of growth in the banking and financial markets, projected costs, original and revised commitments and targets in connection with the Transform Programme, deleveraging actions, estimates of capital expenditures and plans and objectives for future operations 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. These may be affected by changes in legislation, the development of standards and interpretations under International Financial Reporting Standards (IFRS), evolving practices with regard to the interpretation and application of accounting and regulatory 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, 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 (including with regard to the future structure of the Group) applicable to past, current and future periods; UK, United States, Africa, Eurozone and global macroeconomic and business conditions; the effects of continued 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 the Group; the potential for one or more countries exiting the Eurozone; the implementation of the Transform Programme; 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 future results, dividend payments, and capital and leverage ratios may differ materially from the plans, goals, and expectations set forth in the Group's forward-looking statements. Additional risks and factors are identified in our filings with the SEC including our Annual Report on Form 20-F for the fiscal year ended 31 December 2012, and in the Form 6-K (Film No. 131097818) dated 16 September 2013, both of which are available on the SEC's website at <http://www.sec.gov>. Any forward-looking statements made herein speak only as of the date they are made and it should not be assumed that they have been revised or updated in the light of new information or future events. Except as required by the Prudential Regulation Authority, the Financial Conduct Authority, the London Stock Exchange plc (LSE) or applicable law, Barclays expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Barclays' expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. The reader should, however, consult any additional disclosures that Barclays has made or may make in documents it has published or may publish via the Regulatory News Service of the LSE and/or has filed or may file with the SEC.



Robert Le Blanc
Group Chief Risk Officer



Tushar Morzaria
Group Chief Finance Officer

‘We have made significant progress strengthening our capital base, through the rights issue and issuance of Additional Tier 1 securities. Combined with our substantial deleveraging actions in the second half of the year, we are ahead of our schedule to achieve the PRA leverage ratio target in June 2014.’

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.

RWAs reduced £33bn to £355bn during the year, which when combined with retained earnings and capital issuance resulted in a 13.2% Core Tier 1 ratio as at 31 December 2013 (2012: 10.8%):

- The issuance of shares through the rights issue completed in Q4 2013 generated £5.8bn of capital.
- A decrease in sovereign exposure and risk reductions in the trading book contributed to a £14bn RWA decrease; additionally, reduction in Exit Quadrant RWAs (those identified as part of Transform as unable to generate sustainable returns on equity) contributed to a further £13bn RWA decrease.

Impact of CRD IV

This report primarily contains disclosures on a CRD III basis, applicable as at 2013 year-end. It also includes key CRD IV measures, which came into effect on 1st January 2014. These can be found in pages 25 to 31:

- CRD IV RWAs decreased £32bn in the year to £436bn, driven by a £39bn reduction in Exit Quadrant RWAs and reductions in trading book exposures, offset by methodology changes.
- CRD IV Common Equity Tier 1 (CET1) ratio was 9.3% as at 31 December 2013 (31 December 2012: 8.2%).
- PRA Leverage Ratio, a non risk-adjusted measure of capital adequacy, was 3.0% as at 31 December 2013.

Developments in risk management in 2013

During the year we have progressed the Transform programme; this comprises significant initiatives related to risk and capital management. These include:

- The introduction of an Enterprise Risk Management Framework (ERMF), and the creation of a new Board Enterprise Wide Risk Committee (BEWRC) to further strengthen the management of all Principal Risks and the risk culture across the organisation.
- Conduct risk and reputation risk were formally recognised as Principal Risks with Executive Committee sponsorship.

These initiatives are among many that will further align our risk management capabilities and culture with our values, and produce sustainable returns.

The principal function of the Pillar 3 report is to provide detailed information on the underlying drivers of risk weighted assets and capital ratios. As at 31st December 2013, Pillar 3 disclosures are primarily prepared on a CRD III basis.

Capital adequacy improved over the year driven by the rights issue and a decrease in risk weighted assets.

Core Tier 1 ratio

13.2%

2012: 10.8%

CRD III RWAs

£355bn

2012: £387bn

Fully loaded CET1 ratio

9.3%

2012: 8.2%

CRD IV RWAs

£436bn

2012: £468bn

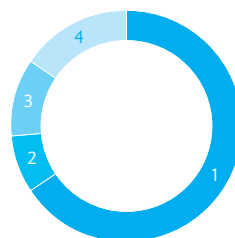
Estimated PRA leverage ratio

3.0%

Fully loaded CRDIV leverage ratio

3.1%

CRD III RWAs decreased 8.4% to £354.8bn during the year (2012: £387.4bn).



	2013	2012
1 Credit risk	£233.3bn	£239.8bn
2 Counterparty credit risk	£27.9bn	£30.1bn
3 Market risk	£39.3bn	£63.3bn
4 Operational risk	£54.3bn	£54.2bn
Total	£354.8bn	£387.4bn

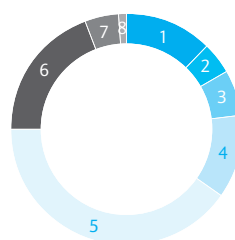
- Credit risk** decreased to £233.3bn (2012: £239.8bn), driven by the disposal of Exit Quadrant assets and improvements in risk profile, partly offset by asset growth in retail businesses.
- Counterparty credit risk** decreased to £27.9bn (2012: £30.1bn), driven by reduced exposure to derivatives.
- Market risk** decreased to £39.3bn (2012: £63.3bn), driven by risk reductions and reduced sovereign exposure in the trading book and Exit Quadrant RWAs.
- Operational risk** remained consistent year on year at £54.3bn (2012: £54.2bn).



We hold RWAs for credit (discussed on page 32), market (page 73), and operational (page 98) risks. See page 23 for the main drivers of movements for each of these risk types.

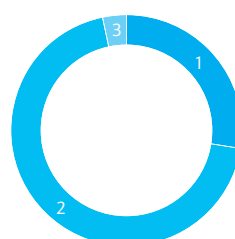
The distribution of risk weighted assets reflects the diversity of our business model.

The proportion of RWAs generated by the Investment Bank decreased to 41% of the Group's total RWAs (2012: 46%), reflecting trading book risk reductions and the disposal of Exit Quadrant RWAs. In contrast, RWAs increased within our retail businesses driven by balance sheet growth.



	2013	2012
1 UK RBB	£44.1bn	£39.1bn
2 Europe RBB	£15.9bn	£15.8bn
3 Africa RBB	£22.4bn	£24.5bn
4 Barclaycard	£41.1bn	£37.8bn
5 Investment Bank	£142.6bn	£177.9bn
6 Corporate Banking	£68.9bn	£70.9bn
7 Wealth and Investment Management	£16.7bn	£16.1bn
8 Head Office Functions and Other Operations	£3.0bn	£5.3bn
Total	£354.8bn	£387.4bn

The split between regulatory calculation approaches has remained consistent year on year. Barclays continues to develop internal models for the calculation of regulatory capital and aims to use advanced approaches for all its significant portfolios. These models are aligned with internal risk management measures and subject to regulatory supervisory approval.



	2013	2012
1 Standardised approaches	£98.4bn	£110.2bn
2 Advanced approaches	£245.4bn	£264.6bn
3 Foundation approach	£11.0bn	£12.6bn
Total	£354.8bn	£387.4bn


This report focuses on key risk factors that ensure Barclays remains a viable and sustainable business. This includes detailed disclosures around our risk management framework and the adequacy of the capital we hold.

Key capital management measures in this report

Measure	31.12.13	31.12.12	Table in this report
CRD III:			
Core tier 1 ratio	13.2%	10.8%	Table 5 – Page 18
Core tier 1 capital	£46.8bn	£41.7bn	Table 5 – Page 18
Risk weighted assets	£354.8bn	£387.4bn	Table 8 – Page 22
CRD IV fully loaded			
Common equity tier 1 ratio	9.3%		Table 10 – Page 27
Common equity tier 1 capital	£40.4bn		Table 10 – Page 27
Risk weighted assets	£435.5bn		Table 12 – Page 29
Estimated leverage ratio (fully loaded)	3.1%		Table 13 – Page 31
Estimated PRA leverage ratio (fully loaded)	3.0%		Table 13 – Page 31

As at 31 December 2013, Barclays was in a strong capital position and in 2013 significant progress has been made towards achieving our key objectives:

- Core Tier 1 capital increased £5.1bn to £46.8bn over the year. This was driven by a £5.8bn rights issue completed in Q4 2013.
- RWAs reduced £33bn to £355bn during the year, primarily driven by £14bn risk reductions and reduced sovereign exposures in the trading book, as well as a £13bn decrease driven by Exit Quadrant RWAs.


 For more detailed information on capital requirements and resources, please refer to pages 17 to 24

Whilst this report is prepared on a CRD III basis, key CRD IV metrics are also included with regards to Barclays' capital position.

- CRD IV CET1 ratio on a fully loaded basis was 9.3% as at 31 December 2013.
- CRD IV fully loaded CET1 capital increased £2.0bn from 31 December 2012 to £40.4bn, principally due to the issuance of additional shares through the rights issue, partially offset by foreign currency movements of £1.8bn and increased regulatory deductions including new deductions related to foreseeable dividends.
- CRD IV RWAs reduced £32bn during the year, primarily driven by reductions in Exit Quadrant RWAs of £39bn and reductions in trading book exposures, partially offset by methodology changes.
- Estimated PRA fully loaded leverage ratio increased to just under 3.0% (30 June 2013: 2.2%), reflecting a reduction in the PRA leverage exposure of £196bn and an increase in eligible PRA adjusted Tier 1 Capital to £40.5bn (30 June 2013: £34.2bn). The estimated CRD IV fully loaded leverage ratio increased to 3.1% (30 June 2013: 2.5%).

Barclays is on-track to meet its Transform financial commitments and regulatory expectations under CRD IV.

- Barclays' current regulatory target is to meet a fully loaded CET1 ratio of 9% by 2019, plus a Pillar 2A add-on. Under current PRA guidance, Pillar 2A will need to be met with 56% CET1 from 2015, which would equate to approximately 1.4% of RWAs if the requirement were to be applied today. The Pillar 2A add-on would be expected to vary over time according to the PRA's individual capital guidance.
- Barclays expects to achieve a 10.5% CRD IV CET1 ratio on a fully loaded basis in 2015. As Barclays builds capital over the transitional period to its end state structure, the Group would estimate reaching a range of 11.5-12.0% for the CRD IV CET1 ratio, once an internal management buffer, Pillar 2A and other regulatory considerations are taken into account. This indication is based on certain assumptions and does not include any Counter-Cyclical Capital Buffer, additional Sectoral Capital Requirement or Systemic Risk Buffer.
- Barclays estimates reaching a PRA leverage ratio of at least 3.5% by the end of 2015 and a range of 3.5% to 4% beyond 2015, with an expected net reduction in leverage exposure of approximately £60bn, excluding foreign currency effects. Barclays expects the reduction in leverage exposure to below £1,300bn by 2015, to result in a minimal impact on current revenues but result in foregone revenue of around £300m in 2015.
- Based on an initial high level impact analysis of the January 2014 Basel Committee on Banking Supervision (BCBS) proposal, we have estimated the changes could decrease the PRA leverage ratio by approximately 20 basis points, prior to management actions and any further rule changes.

 For more detailed information on CRD IV, please refer to pages 25 to 31


To protect the Group's performance and ensure we remain able to serve the communities in which we operate, a strong risk culture and management capabilities are required. We have taken steps to reinforce our risk culture across the organisation.

Barclays' risk culture is a set of objectives and practices, shared across the organisation, that drives and governs risk management. In every area of Barclays' activities, outcomes of decisions or actions may be uncertain and could potentially impact whether, or how well, we deliver against our objectives. A strong and well embedded risk culture, therefore, plays a significant role in the Group delivering its Transform financial commitments and in turning Barclays into the 'Go-To' bank.

During 2013 a new management structure for Risk globally was unveiled to improve delivery against the Transform commitments and to meet the demands of the regulators, our Board, and the wider business. Its aim is also to create an excellent environment for Barclays colleagues to work, advance their careers and contribute to the success of the Group.

In particular, the new Enterprise Risk Management Framework (ERMF) was launched, setting out the approach applicable across the Group and for all risk types:

- We have re-designed our risk management framework; the new Enterprise Risk Management Framework (ERMF) now formally recognises conduct and reputation risk as Principal Risks. A new Board Enterprise Wide Risk Committee (BEWRC) oversees all Principal Risks to further strengthen management and risk culture across the organisation.
- The appraisal process of all employees globally specifically assesses risk and control performance. Positive risk management behaviours are encouraged and rewarded.

 For more detailed information on Barclays' risk management strategy, please refer to pages 101 to 115

Barclays is committed to transparency and openness. This encompasses engaging and responding to our stakeholders' feedback, in order to achieve best in class disclosures.

Barclays' disclosures go beyond the minimum standards required by accounting standards and other regulatory requirements. This year we have sought to further improve disclosures. In particular, we have:

- Included a table showing which elements of the balance sheet give rise to credit, counterparty credit and market risk weighted assets on page 14.
- Included a reconciliation between on balance sheet IFRS data and credit risk banking book exposure at default (EAD). This facilitates a comparison between IFRS and regulatory measures, on page 35.
- Expanded the market risk section by providing better linkages between the balance sheet and VaR, on page 75.
- Expanded the RWA flow table, by including additional classifications and RWA drivers split by risk type, on page 23.
- Included a reconciliation between IFRS statutory impairment stock and the regulatory impairment allowance, on page 60.
- Revised the actual loss table format, to enable an easier comparison to expected loss measures, on page 63.
- Included a split of on and off balance sheet exposures in the securitisation section, on page 89.
- Provided more information around our updated risk management frameworks, our risk culture and the strategies to embed it into the business, on page 101.
- Sought to improve the ease with which users can navigate the various disclosures, with more cross-references, and a disclosures map on page 8. Chapter separators have been introduced, with a quick summary of the contents and key movements for each section.
- For the first time, this report has been subject to Barclays Board Audit Committee approval.

Overview of Basel 2 and Pillar 3

Barclays has applied the Basel 2 framework since 2008. The framework is made up of three pillars:

Pillar 1:

covers the calculation of risk weighted assets for credit risk, counterparty 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)
- Market risk
- Securitisations
- Operational risk

Calculation of capital for credit risk

The credit risk weighted assets calculation is based on an estimate of the exposure at default (EAD), probabilities of default (PD) and loss given default (LGD) concepts (see page 118 and the online glossary for definitions).

- Standardised approach: assesses capital requirements using standard industry-wide risk weightings based on a detailed classification of asset and counterparty types.
- Internal ratings based approach (IRB): assesses capital requirements using bank specific data and internal models, that are approved by the regulator, to calculate risk weightings. The IRB approach is further sub-divided into two applications:
 - Advanced IRB (AIRB): where internal calculations of PD, LGD and credit conversion factors are used to model risk exposures.
 - Foundation IRB (FIRB): where internal calculations of probability of default (PD), but standardised parameters for LGD and credit conversion factors are used.

 See page 32 for more details on capital requirements for credit risk. Also, the internal ratings based approach to credit risk section on page 116 discusses credit risk modeling in detail.

Calculation of capital for counterparty credit risk (CCR)

Counterparty credit risk (CCR) arises where a counterparty default may lead to losses of an uncertain nature as they are market driven. This uncertainty is factored into the valuation of the Group's credit exposure to such transactions. The bank uses two methods under the regulatory framework to calculate CCR credit exposure:


- The Mark to Market method (MTM, also known as current exposure method), which is the sum of the current market value of the instrument plus an add-on (potential future exposure, or PFE) that accounts for the potential change in the value of the contract until a hypothetical default of the counterparty.
- The internal model method (IMM), subject to regulatory approval, allows the use of internal models to calculate an effective expected positive exposure (EPE), multiplied by a factor stipulated by the regulator.

 See page 65 for more details on capital requirements for counterparty credit risk exposures.

Calculation of capital for market risk

Risk weighted asset calculations for market risk assess the losses from extreme movements in the prices of financial assets.

- 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 specific market risk component is calculated that depends on features of the specific security (for instance, country of issuance), and a general market risk component captures changes in the market.
- Model-based approach: With their regulator's permission, firms can use proprietary VaR models to calculate capital requirements. Under Basel 2.5, Stressed VaR, Incremental Risk Charge and All Price Risk models must also be used to ensure that sufficient levels of capital are applied. Please see page 79 for a description of these models.


 See page 73 for more details on capital requirements for market risk.

Calculation of capital for securitisation exposures

Securitisation exposures that fulfil certain criteria are treated under a separate framework to other market or credit risk exposures. For trading book securitisations, specific risk of securitisation transactions is calculated following standardised market risk rules; general market risk of securitisations is captured in market risk models.

For securitisations associated with non-traded banking books, the following approaches are available to calculate risk weighted assets:

- Standardised approach: Where external ratings are available for a transaction, look-up tables provide a risk weight to apply to the exposure amount. For unrated securitisations, depending on the type of exposure and characteristics, standard weights of up to 1250% are applied.
- Advanced approaches include:
 - The ratings based approach, where external ratings are available, allows for a more granular assessment than the equivalent standardised approach.
 - For unrated transactions, the "look through" approach can be used that considers the risk of the underlying assets.
 - The internal assessment approach can be used on unrated asset backed commercial paper programmes; it makes use of internal models that follow similar methodologies to rating agency models.

 See page 84 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 following methods apply:

- Basic indicator approach (BIA): sets the capital requirement as 15% of the net interest and non-interest income, averaged over the last three years. If the income in any year is negative or zero, that year is not considered in the average.
- Standardised approach: under this approach net interest and non-interest income is classified into eight business lines as defined by the regulation. The capital requirement is calculated as a percentage of the income, ranging between 12% and 18% depending on the business line, averaged over the last three years. If the capital requirement in respect of any year of income is negative, it is set to zero in the average calculation.
- Advanced management approach (AMA): under the AMA the firm calculates the capital requirement using its own models, after review and approval of the model and wider risk management framework by the regulator. This is subject to ongoing supervision.

Note that only two of the above methods can be used concurrently. Barclays uses the AMA for the great majority (94%) of its exposures, and the BIA for the small remaining amount. The risk weighted assets for operational risk are calculated by multiplying the capital requirements, above, by 12.5.

 See page 147 for more details on capital requirements for operational risk.

Location of risk disclosures > continued

	Pillar 3 Report		Annual Report	
	Analysis	Management	Risk review	Risk management
Funding risk Liquidity is the risk that the Group, although solvent, either does not have sufficient financial resources available to enable it to meet its obligations as they fall due, or can secure such resources only at excessive costs.	<ul style="list-style-type: none"> ■ Governance ■ Liquidity risk framework ■ Management of liquidity: risk appetite, limits, internal pricing and risk indicators ■ Maturity and currency profiles of assets and liabilities ■ Encumbrance ■ Repurchase agreements and reverse repurchase agreements ■ Credit ratings, and contractual credit rating downgrade exposure 		<p>208-214</p> <p>220-224</p> <p>215-217 218</p> <p>219</p>	<p>418</p> <p>418</p> <p>419</p>
Funding risk Capital risk is the risk that the Group is unable to maintain appropriate capital ratios, which could lead to i) an inability to support business activity; ii) a failure to meet regulatory requirements; or iii) a change to credit ratings.	<ul style="list-style-type: none"> ■ Capital risk overview ■ Capital planning and risk management process ■ Capital ratios ■ Composition of capital ■ Impact of CRD IV ■ Economic capital 	<p>17</p> <p>18</p> <p>18-21</p> <p>25-31</p>	<p>199</p> <p>200-202</p> <p>203-206</p> <p>207</p>	<p>420-422</p>
Reputation risk Reputation risk is the risk of damage to the Group's brand arising from any association, action, or inaction which is perceived by stakeholders to be inappropriate or unethical.	<ul style="list-style-type: none"> ■ Reputation risk 		226-227	
Conduct risk Conduct risk is the risk that detriment is caused to our customers, clients, counterparties or Barclays or its employees because of the inappropriate execution of our business activities.	<ul style="list-style-type: none"> ■ Conduct risk 		228-229	

Barclays' approach to risk disclosures in the Pillar 3 report

Changes in the 2013 Pillar 3 report

Barclays intends to provide meaningful disclosures that help investors and other stakeholders understand the financial position, performance and changes in the financial position of the Group. Additionally, having regards to the British Bankers' Association Disclosure Code and the Enhanced Disclosure Task Force recommendations, we believe the information provided in this report goes beyond minimum requirements. Barclays continues to develop its financial reporting considering best practice and welcomes feedback from investors, regulators and other stakeholders on the disclosures that they would find most useful.



See the executive summary on page 5 for a summary of the changes

Prior year figures

Certain comparatives in this report have been restated to reflect the implementation of IFRS 10 Consolidated Financial Statements and IAS 19 Employee Benefits (Revised 2011), as detailed in our announcement on 16 April 2013.

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

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

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 in 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 will differ from asset values as reported in the Annual Report.

Table 33 provides a reconciliation between the IFRS impairment provision and the regulatory view of the impairment allowance.

Credit losses

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

Asset/exposure classes

Throughout this report, tables show credit exposures or capital requirements split into various exposure classes (for instance, industry or type of borrower). Some of these classes are specified in the PRA rules. Where the regulations are not explicit, such as in industry and geographic analyses, Barclays shows exposure class splits at an appropriate level of granularity.

Policy, validation and sign-off

Throughout the year ended 31 December 2013, and to date, Barclays has operated a system of risk management and internal control, which provides reasonable assurance over the information disclosed in this report as well as with regards to compliance with laws and regulations.

This report was validated and approved internally by Barclays in line with its Pillar 3 policy. Businesses attest to the accuracy of their data submissions, consistency checks and reconciliations are performed.

The Pillar 3 policy also requires that Barclays' external disclosures (which include the Pillar 3 report, the Preliminary Results Announcement, Interim Management Statements, and the Annual Report) convey its risk profile comprehensively, subject to the information being material and not proprietary nor confidential.

During the publication process the report is subject to reviews by the Legal and Technical Committee. The Legal and Technical Committee is responsible for reviewing the Group's financial reports and disclosures to ensure that they have been subject to adequate verification and comply with legal and technical requirements, and reports its conclusions to the Disclosure Committee.

The Disclosure Committee, which is chaired by Barclays Finance Director, considers the content, accuracy and tone of the disclosures, reporting its conclusions to Barclays Executive Committee and the Board Audit Committee, both of which review its conclusions and provide further challenge. The Board Enterprise Wide Risk Committee reviews the report to ensure that Barclays risk disclosures convey its risk profile comprehensively and fairly. Finally, the report is reviewed and approved by the Board Audit Committee.

This governance process is in place to ensure both management and the Board are given sufficient opportunity to review and challenge the Group's financial statements and other significant disclosures before they are made public.

Scope and application of Basel rules

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

- Figure 1 shows a representation of Barclays' entities within the scope of regulatory consolidation and how this differs from statutory consolidation.
- Table 2 shows how IFRS balances contribute to regulatory calculations.
- Table 3 shows the scope of permission of calculation approaches that summarises the various approaches to calculate risk weighted assets, and Barclays' permission to use them.

Risk and capital position review >

Scope of application of Basel rules

Scope of consolidation

In this report, Barclays PLC is presented on a consolidated basis. All of these disclosures are published for Barclays PLC for the year ended 31 December 2013. The consolidation basis used is the same as that used for reporting regulatory capital adequacy to the UK Prudential Regulation Authority. This scope of consolidation is similar to that used for statutory accounting reporting 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 pages 84 to 97 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 the participation for regulatory calculations.
- 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 calculations.

The chart below summarises Barclays' structure with an indication of the sizes of subsidiaries in terms of their respective contribution to total assets.

Figure 1: Summary of regulatory scope of consolidation as at 31.12.13^{a,b}



Significant subsidiaries (not wholly owned)

Regulations require Barclays to prepare its Pillar 3 disclosures at a consolidated Group level. Significant subsidiaries must also report limited Pillar 3 information on their capital resources on a standalone basis. Barclays Bank Plc is the main operating subsidiary of the Group.

Barclays also has a significant subsidiary in Barclays Africa Group Limited (BAGL). BAGL's primary regulator is the South African Reserve Bank (SARB). BAGL has disclosed separate Pillar 3 information in compliance with the SARB's regulations. These disclosures may be found in the investor relations section of Absa's website: www.barclaysafrica.com.

Notes

a Barclays Bank Solus refers to Barclays Bank PLC UK branches, excluding those of its subsidiaries.

b Barclays Bank Plc holds 100% interest in all its subsidiaries with the exception of the Barclays Africa Group Limited (BAGL), in which it holds a 62.3% interest in the Shareholders' equity and recognises the remainder as non-controlling interests. BAGL was created following the consolidation of Absa and Barclays' African businesses (excluding Egypt and Zimbabwe operations) in 2013.

Risk and capital position review >

Scope of application of Basel rules continued

Table 1: Barclays PLC balance sheet – statutory versus regulatory view

This table shows a reconciliation between Barclays PLC balance sheet for statutory purposes versus a regulatory view. Please note that the amount shown under the regulatory scope of consolidation is not a risk weighted asset measure; it is an accounting measure and cannot be directly reconciled to other tables in this report.

As at 31.12.13	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
Assets				
Cash and balances at central banks	45,687	(9)	112	45,790
Items in course of collection from other banks	1,282	–	–	1,282
Trading portfolio assets	133,069	(85)	–	132,984
Financial assets designated at fair value	38,968	(1,632)	–	37,336
Derivative financial instruments	324,335	(5)	–	324,330
Available for sale financial investments	91,756	(2,235)	–	89,521
Loans and advances to banks	37,853	(257)	122	37,718
Loans and advances to customers	430,411	(3,557)	1,338	428,192
Reverse repurchase agreements and other similar secured lending	186,779	(21)	–	186,758
Other assets	22,127	(1,769)	(168)	20,190
Total assets	1,312,267	(9,570)	1,404	1,304,101
Liabilities				
Deposits from banks	54,834	–	1,199	56,033
Items in course of collection due to other banks	1,359	–	–	1,359
Customer accounts	427,902	28	–	427,930
Repurchase agreements and other similar secured borrowing	196,748	(25)	–	196,723
Trading portfolio liabilities	53,464	–	–	53,464
Financial liabilities designated at fair value	64,796	(569)	–	64,227
Derivative financial instruments	320,634	–	–	320,634
Debt securities in issue	86,693	(4,848)	–	81,845
Subordinated liabilities	21,695	–	–	21,695
Other liabilities	20,193	(4,050)	225	16,368
Total Liabilities	1,248,318	(9,464)	1,424	1,240,278
Shareholders' equity				
Shareholders' equity excluding non-controlling interests	55,385	(106)	(20)	55,259
Non-controlling interests	8,564	–	–	8,564
Total shareholders' equity	63,949	(106)	(20)	63,823
Total liabilities and shareholders' equity	1,312,267	(9,570)	1,404	1,304,101

Risk and capital position review >

Scope of application of Basel rules continued

Table 2: Regulatory calculation drivers split by IFRS account classification

This table shows the relationship between IFRS accounting balances and the calculation of risk weighted assets. This is split by regulatory risk type to give an indication of the accounting balances that drive exposure at default (EAD) for credit risk and counterparty credit risk, or are captured within market risk standardised and VaR calculations. This table does not include all inputs that are relevant for regulatory calculations; it instead intends to help readers understand better how IFRS concepts relate to regulatory ones and where these exposures are covered in this report.

IFRS classification	Driver for regulatory calculations		
	Credit risk page 32	Counterparty credit risk page 65	Market risk page 73
Assets			
Cash and balances at central banks	●	○	○
Items in course of collection from other banks	●	○	○
Trading portfolio assets	○	○	●
Financial assets designated at fair value	●	●	●
Derivative financial instruments	○	●	●
Available for sale financial investments	●	○	○
Loans and advances to banks	●	○	○
Loans and advances to customers	●	○	○
Reverse repurchase agreements and other similar secured lending	○	●	○
Other assets	●	○	○
Liabilities^a			
Deposits from banks	○	○	○
Items in course of collection due to other banks	○	○	○
Customer accounts	○	○	○
Repurchase agreements and other similar secured borrowing	○	●	○
Trading portfolio liabilities	○	○	●
Financial liabilities designated at fair value:			
Derivative financial instruments	○	●	●
Debt securities in issue	○	○	○
Subordinated liabilities	○	○	○
Other liabilities	○	○	○

Note

a Where liabilities offset assets for regulatory purposes, these have been shown as contributing to regulatory calculations above.

Risk and capital position review >

Scope of application of Basel rules continued

Scope of permission for calculation approaches

Barclays seeks permission from its regulators to use modelled approaches where possible, to enable risk differentiation and to ensure that appropriate returns on regulatory capital are generated.

Credit risk

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, foundation IRB and advanced IRB approaches as at 31 December 2013.

Table 3: The scope of the standardised and IRB approaches

Business As at 31.12.13	Credit risk			Counterparty credit risk			Internal ratings based (IRB) approaches		
	RWAs £m	Average risk weight	EAD post-CRM £m	RWAs £m	Average risk weight	EAD post-CRM £m	Advanced	Foundation	Standardised approach
UK RBB	37,404	22%	167,641	–	n/a	–	Most portfolios	None	Small sub-portfolios
Europe RBB	13,774	33%	41,863	4	81%	5	Portugal mortgages, Italy mortgages, Spain mortgages, Spain cards, Italy personal loans	None	Other portfolios (including legacy)
Africa RBB	18,416	51%	35,989	3	91%	3	Retail portfolios in Absa	Wholesale portfolios in Absa	Mainly non South African portfolios
Barclaycard	34,549	66%	52,668	–	n/a	–	UK retail credit cards, Germany retail credit cards	None	Non UK (incl. recent acquisitions excl. Germany), UK secured lending and partnerships
Investment Bank	51,479	31%	167,716	26,967	35%	77,128	Most portfolios	Absa Capital	Small portfolios typically with low or no defaults (e.g. fund manager)
Corporate Banking	61,560	48%	129,364	651	63%	1,035	Larger and medium business portfolios, UK managed trade finance portfolios	Wholesale portfolios in Absa	Non UK (incl. legacy), asset and sales finance
Wealth and Investment Management	13,230	40%	33,053	230	50%	460	Spain mortgages	None	Most portfolios
Head Office Functions and Other Operations	2,852	17%	16,541	–	n/a	–	All significant portfolios	None	Small portion of non customer assets and other immaterial portfolios
Total	233,264	36%	644,835	27,855	35%	78,631			

Barclays continuously develops credit models for the calculation of regulatory capital and aims to use the advanced internal ratings based (AIRB) approach for all of its significant portfolios. To achieve this, Barclays has a well developed AIRB roll-out plan which is discussed with our regulators and updated on an agreed schedule. The plan is based on current regulatory requirements with portfolios moving to AIRB as soon as practicable, recognising any data constraints and methodology challenges.

Table 4: Summary of the scope of application of regulatory methodologies for counterparty, market and operational risk

As at 31.12.13 Risk Type	Risk Weighted Assets	Scope
Counterparty credit risk	£27.9bn	Barclays has permission to apply the internal model method (IMM) to most asset classes, primarily relating to SFTs and OTCs. The most material exceptions include contracts entered into by Barclays Capital Inc, such as exchange traded derivatives and margin loans.
Market risk	£39.3bn	<p>As explained on page 136, the risk of loss from changes in the prices of assets in the trading book are captured by general and specific market risk RWA calculations. The regulatory permission for Barclays to use models considers risk types and legal entities.</p> <p>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.</p> <p>Barclays has permission to model specific market risk, including 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 for issuer risk. 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.</p>
Operational risk	£54.3bn	Barclays has regulatory approval to calculate its operational risk capital requirement using a CRD III advanced measurement approach (AMA). Recently acquired businesses are excluded from this approval. The latter account for 7.3% of operational risk RWAs as at 2013 year end. Barclays uses the basic indicator approach while it transitions these businesses to AMA.

Group capital requirements and resources

This section shows Barclays' capital position on a CRD III basis and details both capital resources and capital requirements.

- The Group's Core Tier 1 ratio increased to 13.2% (December 2012: 10.8%) reflecting an increase in Core Tier 1 capital of £5.1bn to £46.8bn. This was driven by the £5.8bn rights issue.
- RWAs reduced £33bn to £355bn during the year, primarily driven by £14bn risk reductions and reduced sovereign exposures in the trading book, as well as a £13bn decrease driven by Exit Quadrant RWAs.

We have improved our Core Tier 1 ratio position

Core Tier 1 Ratio

13.2%

Core Tier 1 Capital

+£5.1bn

Driven by the rights issue, offset by foreign exchange movements.

Total RWAs

-£32.6bn

Driven by risk reductions and reduced sovereign exposure in the trading book and Exit Quadrant RWA disposals.

Risk and capital position review >

Group capital requirements and resources

Capital resources

Table 5: Capital resources

This table shows the Group's capital resources.

CRD III Capital Ratios		
	As at 31.12.13	As at 31.12.12
Core Tier 1	13.2%	10.8%
Tier 1	15.7%	13.2%
Total capital	19.9%	17.0%

Capital Resources		
	£m	£m
Shareholders' equity (excluding non-controlling interests) per balance sheet	55,385	50,615
– Less: CRD IV additional tier 1 equity ^a	(2,063)	–
Own credit cumulative loss ^b	806	804
Unrealised losses/(gains) on available for sale debt securities ^b	3	(417)
Unrealised gains on available for sale equity (recognised as tier 2 capital) ^b	(151)	(110)
Cash flow hedging reserve ^b	(273)	(2,099)
Non-controlling interests per balance sheet	8,564	9,371
– Less: Other Tier 1 capital – preference shares	(6,131)	(6,203)
– Less: Non-controlling Tier 2 capital	(478)	(547)
Other regulatory adjustments to non-controlling interests	(23)	(171)
Other regulatory adjustments and deductions:		
Defined benefit pension adjustment ^b	195	49
Goodwill and intangible assets ^b	(7,618)	(7,622)
50% excess of expected losses over impairment ^b	(787)	(648)
50% of securitisation positions	(503)	(997)
Other regulatory adjustments	(142)	(303)
Core Tier 1 capital	46,784	41,722
Other Tier 1 capital:		
Preference shares	6,131	6,203
Tier 1 notes ^c	500	509
Reserve Capital Instruments ^c	2,858	2,866
Regulatory adjustments and deductions:		
50% of material holdings	(459)	(241)
50% of the tax on excess of expected losses over impairment	6	176
Total Tier 1 capital	55,820	51,235
Tier 2 capital:		
Undated subordinated liabilities	1,522	1,625
Dated subordinated liabilities	13,626	14,066
Non-controlling Tier 2 capital	478	547
Reserves arising on revaluation of property ^b	7	39
Unrealised gains on available for sale equity ^b	153	110
Collectively assessed impairment allowances	1,875	2,002
Tier 2 deductions:		
50% of material holdings	(459)	(241)
50% excess of expected losses over impairment (gross of tax)	(793)	(824)
50% of securitisation positions	(503)	(997)
Total capital regulatory adjustments and deductions:		
Investments that are not material holdings or qualifying holdings	(768)	(1,139)
Other deductions from total capital	(288)	(550)
Total regulatory capital	70,670	65,873

Notes

a Additional tier 1 instruments that are not eligible for CRD III capital but are eligible under CRD IV rules.

b The capital impacts of these items are net of tax.

c Tier 1 notes and reserve capital instruments are included in subordinated liabilities in the consolidated balance sheet.

Risk and capital position review >

Group capital requirements and resources continued

Table 6: Summary of movements in capital resources

Movement in Core Tier 1 Capital

	2013 £m	2012 £m
Core Tier 1 capital as at 1 January	41,722	42,093
Profit for the period	1,297	181
Removal of own credit	2	3,484
Dividends paid	(1,672)	(1,427)
Retained regulatory capital generated from earnings	(373)	2,238
Rights issue	5,830	–
Movement in reserves – impact of ordinary shares and share schemes	1,203	(165)
Movement in currency translation reserves	(1,767)	(1,548)
Movement in retirement benefit reserves	(515)	(1,235)
Other reserves movements	17	33
Movement in other qualifying reserves	4,768	(2,915)
Movement in regulatory adjustments and deductions:		
Defined benefit pension adjustment ^a	146	53
Goodwill and intangible asset balances ^a	4	(62)
50% excess of expected losses over impairment ^a	(139)	(142)
50% of securitisation positions	494	320
Other regulatory adjustments	162	137
Core Tier 1 capital as at 31 December	46,784	41,722
Other Tier 1 capital as at 1 January	9,513	7,407
Regulatory adjustments on other Tier 1 capital	(89)	(82)
50% of material holdings	(218)	2,141
50% of the tax on excess of expected losses over impairment	(170)	47
Tier 1 capital as at 31 December	55,820	51,235
Tier 2 capital as at 1 January	16,327	16,323
Issuance of contingent capital notes and subordinated notes	652	2,258
Redemption of subordinated notes	(1,391)	(2,672)
Amortisation adjustments	349	(155)
Regulatory adjustments on Tier 2 capital	(222)	(612)
Reserves arising on revaluation of property ^a	(32)	14
Unrealised gains on available for sale equity ^a	43	(718)
Collectively assessed impairment allowances	(127)	(383)
50% of material holdings	(218)	2,141
50% excess of expected losses over impairment (gross of tax)	31	(189)
50% of securitisation positions	494	320
Tier 2 capital as at 31 December	15,906	16,327
Other deductions from total capital as at 1 January	(1,689)	(2,588)
Investments that are not material holdings or qualifying holdings	371	852
Other deductions from total capital	262	47
Other deductions from total capital as at 31 December	(1,056)	(1,689)
Total regulatory capital as at 31 December	70,670	65,873

- The Core Tier 1 ratio increased to 13.2% (2012: 10.8%) reflecting an increase in Core Tier 1 capital of £5.1bn to £46.8bn. Barclays generated £1.3bn Core Tier 1 capital from earnings after absorbing the impact of provisions for PPI and interest rate hedging product redress. After deducting £1.7bn of dividends paid during 2013, retained regulatory capital generated from earnings decreased Core Tier 1 capital by £0.4bn. Other material movements in Core Tier 1 capital were:
 - £5.8bn increase in share capital and share premium due to the rights issue.
 - £0.8bn increase in share capital and share premium due to warrants exercised.
 - £1.8bn decrease due to foreign currency movements, primarily due to the appreciation of GBP against USD and ZAR.
 - £0.5bn decrease in securitisation deductions due to rundown of Exit Quadrant.
- Total Capital Resources increased overall by £4.8bn to £70.7bn. The increases in Core Tier 1 capital were partially reduced by decreases in Tier 2 capital as a result of £1.4bn of redemptions of dated subordinated liabilities, offset by £0.7bn of new issuances and a further £0.5bn decrease in securitisation deductions at a total capital level.

Note

a The capital impacts of these items are net of tax.

Risk and capital position review >

Group capital requirements and resources continued

Table 7: Terms and conditions of capital resources

This table breaks down the other Tier 1 and Tier 2 capital issued by instrument and provides selected key terms and conditions. All Tier 1 capital comprises perpetual instruments with no maturity date^a. Regulatory capital differs from the amounts recorded under IFRS due to PRA requirements relating to: capital eligibility criteria; amortisation of principal in the final five years to maturity; and the exclusion of the impact of fair value hedging.

Instrument	Initial call date	Regulatory balance ^b		IFRS balance	
		2013 £m	2012 £m	2013 £m	2012 £m
Other Tier 1 Capital					
Preference Shares					
Barclays Bank PLC					
6.00% non cumulative callable preference shares		744	744	744	746
6.278% non cumulative callable preference shares		548	548	548	550
4.875% non cumulative callable preference shares		682	684	687	689
4.75% non cumulative callable preference shares		967	967	967	1,010
6.625% non cumulative callable preference shares		406	406	406	407
7.1% non cumulative callable preference shares		657	657	657	660
7.75% non cumulative callable preference shares		550	550	550	552
8.125% non cumulative callable preference shares		1,309	1,309	1,309	1,313
Absa Bank Limited					
Absa Preference Shares		268	338	268	338
Total Preference Shares		6,131	6,203	6,136	6,265
Tier One Notes (TONs) – Barclays Bank PLC					
6% Callable Perpetual Core Tier One Notes	2032	89	89	105	116
6.86% Callable Perpetual Core Tier One Notes	2032	411	420	613	720
Total Tier One Notes		500	509	718	836
Reserve Capital Instruments (RCIs) – Barclays Bank PLC					
5.926% Step-up Callable Perpetual Reserve Capital Instruments (US\$533m)	2016	319	327	368	393
7.434% Step-up Callable Perpetual Reserve Capital Instruments (US\$347m)	2017	209	213	244	261
6.3688% Step-up Callable Perpetual Reserve Capital Instruments	2019	95	95	114	117
14% Step-up Callable Perpetual Reserve Capital Instruments	2019	2,154	2,150	2,951	3,298
5.3304% Step-up Callable Perpetual Reserve Capital Instruments	2036	81	81	107	113
Total Reserve Capital Instruments		2,858	2,866	3,784	4,182
Tier 2 Capital					
Undated subordinated liabilities – Barclays Bank PLC					
6.875% Undated Subordinated Notes	2015	135	135	145	152
6.375% Undated Subordinated Notes	2017	133	133	146	153
7.7% Undated Subordinated Notes (US\$99m)	2018	61	62	67	72
8.25% Undated Subordinated Notes	2018	139	140	151	165
7.125% Undated Subordinated Notes	2020	158	158	198	215
6.125% Undated Subordinated Notes	2027	196	196	223	233
Junior Undated Floating Rate Notes (US\$121m)	Any interest payment date	66	133	66	75
Undated Floating Rate Primary Capital Notes Series 3	Any interest payment date	145	145	145	146
Bonds – Barclays Bank PLC					
9.25% Perpetual Subordinated Bonds (ex-Woolwich PLC)	2021	75	75	91	99
9% Permanent Interest Bearing Capital Bonds	At any time	40	40	42	47
Loans – Barclays Bank PLC					
5.03% Reverse Dual Currency Undated Subordinated Loan (Yen 8,000m)	2028	46	57	39	47
5% Reverse Dual Currency Undated Subordinated Loan (Yen 12,000m)	2028	69	86	58	72
Barclays SLCSM Funding B.V. guaranteed by the Bank					
6.140% Fixed Rate Guaranteed Perpetual Subordinated Notes	2015	259	265	254	246
Total undated subordinated liabilities		1,522	1,625	1,625	1,722

Notes

a Note 32 in the 2013 Annual Report for Ordinary shares, share premium, and other equity covers equity instruments, including AT1 securities eligible under CRD IV.
b Note that as the regulatory balances are as at 31 December 2013 under CRD III rules, the regulatory balances do not incorporate grandfathering provisions

Risk and capital position review >

Group capital requirements and resources continued

Table 7 continued

Instrument	Initial call date	Maturity date	Regulatory balance		IFRS balance	
			2013 £m	2012 £m	2013 £m	2012 £m
Dated subordinated liabilities						
Barclays Bank PLC						
5.015% Subordinated Notes (US\$150m)		2013	–	19	–	96
4.875% Subordinated Notes (€750m)		2013	–	122	–	636
Callable Fixed/Floating Rate Subordinated Notes (€1,000m)	2014	2019	833	815	866	861
4.38% Fixed Rate Subordinated Notes (US\$75m)		2015	18	27	49	52
4.75% Fixed Rate Subordinated Notes (US\$150m)		2015	36	56	97	103
5.14% Lower Tier 2 Notes (US\$1,094m)	2015	2020	662	773	706	885
6.05% Fixed Rate Subordinated Notes (US\$2,250m)		2017	740	1,391	1,073	1,635
Floating Rate Subordinated Notes (€40m)		2018	33	33	33	33
6% Fixed Rate Subordinated Notes (€1,750m)		2018	1,459	1,427	1,554	1,519
CMS-Linked Subordinated Notes (€100m)		2018	83	82	87	85
CMS-Linked Subordinated Notes (€135m)		2018	113	110	116	114
Fixed/Floating Rate Subordinated Callable Notes	2018	2023	500	500	570	608
7.75% Contingent Capital Notes (US\$1,000m)	2018	2023	606	–	603	–
Floating Rate Subordinated Notes (€50m)		2019	42	41	41	40
6% Fixed Rate Subordinated Notes (€1,500m)		2021	1,251	1,223	1,356	1,333
9.5% Subordinated Bonds (ex-Woolwich plc)		2021	199	200	306	338
Subordinated Floating Rate Notes (€100m)		2021	80	82	82	80
10% Fixed Rate Subordinated Notes		2021	1,962	1,962	2,265	2,446
10.179% Fixed Rate Subordinated Notes (US\$1,521m)		2021	921	940	991	1,133
Subordinated Floating Rate Notes (€50m)		2022	42	41	42	41
6.625% Fixed Rate Subordinated Notes (€1,000m)		2022	834	815	957	954
7.625% Contingent Capital Notes (US\$3,000m)		2022	1,815	1,855	1,649	1,848
Subordinated Floating Rate Notes (€50m)		2023	41	41	42	41
5.75% Fixed Rate Subordinated Notes		2026	600	600	742	810
5.4% Reverse Dual Currency Subordinated Loan (Yen 15,000m)		2027	87	108	74	90
6.33% Subordinated Notes		2032	50	50	55	62
Subordinated Floating Rate Notes (€100m)		2040	83	82	83	82
Absa Bank Limited						
6.25% CPI-linked Subordinated Callable Notes (ZAR 1,886m)	2013	2018	–	–	–	169
8.8% Subordinated Fixed Rate Callable Notes (ZAR 1,725m)	2014	2019	102	129	102	136
6.00% CPI-linked Subordinated Callable Notes (ZAR 3,000m)	2014	2019	–	–	228	275
8.1% Subordinated Callable Notes (ZAR 2,000m)	2015	2020	118	149	121	156
10.28% Subordinated Callable Notes (ZAR 600m)	2017	2022	–	–	35	44
Subordinated Callable Notes (ZAR 400m)	2017	2022	–	–	23	29
Subordinated Callable Notes (ZAR 1,805m)	2017	2022	105	132	105	132
Subordinated Callable Notes (ZAR 2,007m)	2018	2023	116	147	116	147
8.295% Subordinated Callable Notes (ZAR 1,188m)	2018	2023	69	87	69	87
5.50% CPI-linked Subordinated Callable Notes (ZAR 1,500m)	2023	2028	–	–	107	129
Other capital issued by Barclays Africa and Japan		2013-2018	26	27	223	49
Total Dated subordinated liabilities			13,626	14,066	15,568	17,278
Non controlling tier 2 capital - Barclays Bank PLC						
Undated Floating Rate Primary Capital Notes Series 1			214	249	222	276
Undated Floating Rate Primary Capital Notes Series 2			264	298	264	315
Total non controlling tier 2 capital			478	547	486	591

Further details on the terms of each instrument of subordinated liabilities can be found on pages 341 to 344 of the 2013 Annual Report.

Risk and capital position review >

Group capital requirements and resources continued

Capital requirements

Table 8: Risk weighted assets by risk type and business

This table shows risk weighted assets by business and risk type.

	Credit risk			Counterparty credit risk		Market risk		Operational risk		Total risk weighted assets £m
	STD £m	F-IRB £m	A-IRB £m	IMM £m	Non-model method £m	STD £m	Modelled - VaR £m	Charges add-on and non-VaR modelled £m	£m	
As at 31.12.13										
UK RBB	2,639	–	34,765	–	–	–	–	–	6,680	44,084
Europe RBB	4,206	–	9,568	–	4	–	–	–	2,128	15,906
Africa RBB	5,196	4,820	8,400	–	3	–	–	–	3,965	22,384
Barclaycard	18,070	–	16,479	–	–	–	–	–	6,594	41,143
Investment Bank	7,306	3,142	41,031	20,847	6,120	16,957	14,932	7,490	24,807	142,632
Corporate Banking	22,582	2,846	36,132	649	2	–	–	–	6,717	68,928
Wealth and Investment Management Head Office Functions and Other Operations	11,209	225	1,796	–	230	–	–	–	3,261	16,721
	168	–	2,684	–	–	–	–	–	159	3,011
Total risk weighted assets	71,376	11,033	150,855	21,496	6,359	16,957	14,932	7,490	54,311	354,809
As at 31.12.12										
UK RBB	1,163	–	31,401	–	–	–	–	–	6,524	39,088
Europe RBB	5,051	–	8,786	–	3	–	–	–	1,955	15,795
Africa RBB	3,801	5,778	10,602	–	7	–	–	–	4,344	24,532
Barclaycard	17,326	–	13,957	–	–	–	–	–	6,553	37,836
Investment Bank	9,386	3,055	48,000	25,127	4,264	25,396	22,497	15,429	24,730	177,884
Corporate Banking	28,295	3,430	31,897	500	–	–	–	–	6,736	70,858
Wealth and Investment Management Head Office Functions and Other Operations	11,647	317	707	–	199	–	–	–	3,184	16,054
	205	–	4,961	–	–	–	–	–	160	5,326
Total risk weighted assets	76,874	12,580	150,311	25,627	4,473	25,396	22,497	15,429	54,186	387,373

Risk and capital position review >

Group capital requirements and resources continued

Table 9: Movements in risk weighted assets (RWAs)

This tables shows movements in RWAs, split by key drivers

Risk weighted assets	Credit risk £bn	Counterparty credit risk £bn	Market risk £bn	Operational risk £bn	Total £bn
As at 1 January 2013	239.8	30.1	63.3	54.2	387.4
Book size	6.0	(2.1)	(17.9)	0.1	(13.9)
Acquisitions and disposals (including Exit Quadrant) ^a	(7.7)	(0.2)	(3.6)	0.1	(11.4)
Book quality	(4.5)	0.2	(0.1)	–	(4.4)
Model updates	2.6	0.8	(0.1)	–	3.3
Methodology and policy	1.6	(0.2)	–	–	1.4
Foreign exchange movement ^b	(4.6)	(0.3)	(0.2)	(0.1)	(5.2)
Other	0.1	(0.4)	(2.1)	–	(2.4)
As at 31 December 2013	233.3	27.9	39.3	54.3	354.8

Total RWA Movement

RWAs decreased by £32.6bn, reflecting:

- Book size reductions which decreased RWAs by £13.9bn, primarily driven by reduced sovereign exposure and risk reductions in the trading book, offset by asset growth in UK RBB and Barclaycard.
- Acquisitions and disposals (including Exit Quadrant) decreased RWAs by £11.4bn, primarily driven by Exit Quadrant RWA reductions, offset by the acquisition of Barclays Direct.
- Book quality improved resulting in a RWA reduction of £4.4bn, primarily driven by changing risk profile within UK RBB, Corporate Banking and the Investment Bank.
- Model updates increased RWAs by £3.3bn, primarily driven by model changes within Barclaycard in order to meet changes in regulatory guidance.
- Methodology and policy changes increased RWAs by £1.4bn, driven by changes relating to forbearance, offset by improved collateral applied to credit exposures.
- Foreign exchange movements decreased RWAs by £5.2bn, primarily driven by the appreciation of GBP against ZAR.
- Other decreased RWAs by £2.4bn, primarily driven by changes in measurement within the trading book.

Credit risk

RWAs decreased by £6.5bn, reflecting:

- A £6.0bn RWA increase in book size, primarily driven by asset growth in UK RBB, Barclaycard and Africa RBB, offset by reduced levels of syndication within the Investment Bank.
- Acquisitions and disposals (including Exit Quadrant) decreased RWAs by £7.7bn, primarily driven by Exit Quadrant RWA reductions, offset by the acquisition of Barclays Direct.
- Book quality improved resulting in a RWA reduction of £4.5bn, primarily driven by changing risk profile, reflected through improved PDs and LGDs within UK RBB, Corporate Banking and Investment Bank credit risk models, offset in part by deterioration of the Italian mortgage portfolio within Europe RBB.

- Model updates increased RWAs by £2.6bn, primarily driven by post model adjustments within Barclaycard in order to meet changes in regulatory guidance and to refine downturn estimations.
- Methodology and policy changes increased RWAs by £1.6bn, driven by changes relating to forbearance, primarily within Corporate Banking, UK RBB and Europe RBB. Other increases included external requirements to capture additional RWAs for both pipeline mortgages and slotting. This was offset by improved collateral applied to credit exposures, primarily within Corporate Banking and Wealth and Investment Management.
- Foreign exchange movements decreased RWAs by £4.6bn, primarily driven by the appreciation of GBP against ZAR.

Counterparty credit risk

RWAs decreased by £2.2bn, reflecting:

- A £2.1bn RWA reduction in book size, primarily driven by reduced exposure to FX and commodity derivatives.
- Model updates increased RWAs by £0.8bn, primarily driven by the implementation of a pension fund LGD floor.

Market risk

RWAs decreased by £24.0bn, reflecting:

- Business activity decreased RWAs by £17.9bn, primarily driven by reduced sovereign exposure; lower levels of syndication, a reduction of securitised products held and lower levels of trading within the fixed income business.
- Acquisitions and disposals (including Exit Quadrant) decreased RWAs by £3.6bn, primarily driven by Exit Quadrant reductions.
- Other decreased RWAs by £2.1bn, primarily driven by changes in measurement of RNIVs.

Operational risk

RWAs increased by £0.1bn, reflecting:

- Acquisitions and disposals (including Exit Quadrant) increased RWAs by £0.1bn, driven by the acquisition of Barclays Direct.

Notes

a Total Exit Quadrant RWA reductions are included in the acquisitions and disposals category.

b Foreign exchange movement does not include movements for IMM, modelled market risk or Exit Quadrant.

Basis of preparation for movements in risk weighted assets

This analysis splits RWA movement by 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 credit risk

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 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 credit risk

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.
- Changing lending practices, demographics and maturity.

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 credit risk

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 market risk internal modelled RWA calculation.

Methodology and policy

Credit risk and counterparty credit risk

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, such as the use of the slotting approach for IRB portfolios or the implementation of the LGD Floor (45%) for sovereign credit portfolios.
- 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 internal modelled or standardised approach.

Acquisitions and disposals (including Exit Quadrant)

This is the movement in RWAs as a result of the disposal or acquisition of business operations impacting the positions size of banking and trading portfolios. This includes, but is not exclusive to:

- RWA reductions relating to Exit Quadrant Assets (those relate to businesses identified as part of Transform programme, as unable to generate sustainable returns on equity above cost of equity).
- The acquisition of Barclays Direct.

Foreign exchange movements

This is the movement in RWAs as a result of changes in the exchange rate between the functional currency of the Barclay's business area or portfolio and our presentational currency for consolidated reporting. It should be noted that foreign exchange movements shown in table 8 do not include the impact of foreign exchange for the counterparty credit risk internal model method, the modelled market risk or the Exit Quadrant assets.

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.

Impact of CRD IV as implemented by the Prudential Regulation Authority

CRD IV came into effect on 1st January 2014. This section details the Group's Capital position and leverage ratio on this basis, as at 31 December 2013.

- CRD IV CET1 ratio on a fully loaded basis increased to 9.3% (31 December 2012: 8.2%). This improvement was mainly as a result of the rights issue and a decrease in RWAs.
- CRD IV fully loaded CET1 capital increased £2.0bn from 31 December 2012 to £40.4bn, principally due to the issuance of additional shares through the rights issue, partially offset by foreign currency movements of £1.8bn and increased regulatory deductions primarily related to foreseeable dividends.
- CRD IV RWAs reduced £32bn during the year, primarily driven by reductions in Exit Quadrant RWAs of £39bn and reductions in trading book exposures, partially offset by methodology changes. This reduction was primarily in the Investment Bank, where Exit Quadrant RWAs reduced £37bn to £42bn.
- The estimated PRA leverage ratio increased to just under 3.0% (30 June 2013: 2.2%), reflecting a reduction in the PRA leverage exposure of £196bn and an increase in eligible PRA adjusted Tier 1 Capital to £40.5bn (30 June 2013: £34.2bn).
- The estimated CRD IV fully loaded leverage ratio increased to 3.1% (30 June 2013: 2.5%).

Barclays continues to be in excess of minimum CRD IV capital ratios on both a transitional and fully loaded basis. We are on track to meet the PRA Leverage Ratio expectation.

CET1 ratio

9.3%

Compared to 9%^a regulatory benchmark

PRA Leverage ratio

3.0%

On track to meet the PRA June 2014 expectation

Note

a Expected fully loaded CET1 ratio expectation excludes Pillar II, sectoral and countercyclical buffers and is based on the expected minimum for a 2% G-SIFI bank.

CRD IV as implemented by the Prudential Regulation Authority

The new Capital Requirements Regulation and amended Capital Requirements Directive have implemented Basel 3 within the EU (collectively known as CRD IV) with effect from 1 January 2014. However, certain aspects of CRD IV are dependent on final technical standards to be issued by the European Banking Authority (EBA) and adopted by the European Commission as well as UK implementation of the rules. Barclays has calculated RWAs, Capital and Leverage ratios reflecting our interpretation of the current rules and guidance. Further changes to the impact of CRD IV may emerge as the requirements are finalised and implemented within Barclays.

Capital ratios

- Barclays continues to be in excess of minimum CRD IV capital ratios on both a transitional and fully loaded basis.
- As at 31 December 2013 Barclays exceeded the PRA target fully loaded CET1 ratio of 7%. On a transitional basis the PRA has implemented a minimum requirement CET1 ratio of 4%, Tier 1 ratio of 5.5% (in 2014) and Total Capital ratio of 8%.
- Barclays' current regulatory target is to meet a fully loaded CET1 ratio of 9% by 2019, plus a Pillar 2A add-on. The 9% comprises the required 4.5% minimum CET1 ratio and, phased in from 2016, a Combined Buffer Requirement made up of a Capital Conservation Buffer (CCB) of 2.5% and an expected Globally Systemically Important Institution (G-SII) buffer of 2%.
- Under current PRA guidance, the Pillar 2A add-on will need to be met with 56% CET1 from 2015, which would equate to approximately 1.4%^a of RWAs if the requirement were to be applied today. The Pillar 2A add-on would be expected to vary over time according to the PRA's individual capital guidance.
- In addition, a Counter-Cyclical Capital Buffer (CCCB) and/or additional sectoral capital requirements (SCR) may be required by the Bank of England to protect against perceived threats to financial stability. CRD IV also includes the potential for a Systemic Risk Buffer (SRB). These buffers could be applied at the Group level or at a legal entity, sub-consolidated or portfolio level. No CCCB, SCR or SRB has currently been set by the Bank of England.

Capital resources

- The PRA has announced the acceleration of transitional provisions relating to CET1 deductions and filters so the fully loaded requirements are applicable from 1 January 2014, with the exception of unrealised gains on available for sale debt and equity. As a result, transitional capital ratios are now closely aligned to fully loaded ratios.
- Following the issuance of the EBA's final draft technical standard on own funds, a deduction has been recognised for foreseeable dividends. As at 31 December 2013, this represents an accrual for the final dividend for 2013, calculated at 3.5p per share, and the coupons on other equity accounted instruments.
- Grandfathering limits on capital instruments, previously qualifying as Tier 1 and Tier 2, are unchanged under the PRA transitional rules.
- The Prudential Valuation Adjustment (PVA) is shown as fully deducted from CET1 upon adoption of CRD IV. PVA is subject to a technical standard being drafted by the EBA and the impact is currently based on methodology agreed with the PRA. The PVA deduction as at 31 December 2013 was £2.5bn.
- Barclays continues to recognise minority interests in eligible subsidiaries within African operations as CET1 (subject to regulatory haircuts prescribed in CRD IV) in accordance with our application of regulatory requirements on own funds.
- As a result of the application of the EBA's final draft technical standard, PRA guidance and management actions taken during 2013, net long non-significant holdings in financial entities amount to £3.5bn and are below the 10% CET1 threshold that would require a capital deduction.

RWAs

- The PRA has confirmed Barclays model approvals under CRD IV, with certain provisions reflecting relevant changes to the rules and guidance; the impact of which has been reflected in our CRD IV disclosures where applicable. Barclays models are subject to continuous monitoring, update and regulatory review, which may result in future changes to CRD IV capital requirements.
- It is assumed that corporates, pension funds and sovereigns that meet the eligibility conditions are exempt from CVA volatility charges.
- Under CRD IV rules, all Central Clearing Counterparties (CCPs) are deemed to be qualifying on a transitional basis. The final determination of qualifying status will be made by the European Securities and Markets Authority (ESMA).
- RWAs include 1250% risk weighting of securitisation positions that were previously deducted from Core Tier 1 and Tier 2 capital. The RWA increases are reflected in credit risk, counterparty credit risk and market risk.
- Securitisation RWAs include the impact of CRD IV on applying either standardised or advanced methods for securitisation exposures dependent on the character of the underlying assets.

Note

^a Based on a point in time assessment made by the PRA, at least annually. The PRA is developing proposals to reform its Pillar 2 framework and, as noted in PS7/13 (PRA policy statement PS7/13 on strengthening capital standards published in December 2013), it expects to consult on those proposals during the course of 2014. The EBA is also developing guidelines on the Supervisory Review and Evaluation Process (SREP) and on Pillar 2 capital, which are likely to affect how the PRA approaches Pillar 2.

Table 10: Impact of CRD IV – Capital

This table shows the impact of CRD IV on Capital Resources

Impact of CRD IV – Capital	CRD IV Fully-loaded 31.12.13 £bn
Core Tier 1 capital (CRD III)	46.8
RWAs (CRD III)	354.8
Core Tier 1 ratio (CRD III)	13.2%
CRD IV impact on Core Tier 1 capital:	
Conversion from securitisation deductions to RWAs	0.5
Prudential Valuation Adjustment (PVA)	(2.5)
Debit Valuation Adjustment (DVA)	(0.2)
Expected losses over impairment	(1.3)
Deferred tax assets deduction	(1.0)
Excess minority interest	(0.6)
Pensions	(0.2)
Foreseeable dividends	(0.7)
Gains on available for sale equity and debt	0.2
Other	(0.6)
CET1 capital	40.4
Tier 1 capital	42.7
Total capital	61.6
RWAs (CRD III)	354.8
CRD IV impact to RWAs:	
Credit Valuation Adjustment (CVA)	17.3
Securitisation	19.3
Other counterparty credit risk (including Central Counterparty Clearing)	30.6
Other ^a	13.6
RWA impact	80.8
CRD IV RWAs	435.6
CET1 ratio	9.3%
Tier 1 ratio	9.8%
Total capital ratio	14.1%

As at 31 December 2013, assuming 2013 was the first year of application under the PRA's transitional rules, which reflect the maximum pace of transition, Barclays CET1 ratio would be 9.2%^b, the Tier 1 ratio would be 11.5% and the total capital ratio would be 15.3%.

Notes

a Other CRD IV impacts to RWAs include deferred tax asset, significant holdings in financial institutions and other items.

b Difference to fully loaded ratio arises from an additional capital deduction for unrealised gains on available for sale debt and equity of £0.2bn.

Table 11: CRD IV regulatory capital

This table shows the components of regulatory capital presented on both a first year transitional and end-point basis as at 31 December 2013. This disclosure has been prepared using the format set out in Annex VI of the EBA consultation paper 'Draft Implementing Technical Standards on Disclosure for Own Funds by Institutions'.

	31.12.13 Transitional position Yr 1 £m	Transitional impacts Yr 1 ^a £m	31.12.13 Fully loaded position £m
Common Equity Tier 1 (CET1) capital: instruments and reserves			
Capital instruments and the related share premium accounts	19,887	–	19,887
Retained earnings	33,186	–	33,186
Adjustment to retained earnings for foreseeable dividends	(640)	–	(640)
Accumulated other comprehensive income (and other reserves)	249	–	249
Minority Interests (amount allowed in consolidated CET1)	1,238	–	1,238
Common Equity Tier 1 capital before regulatory adjustments	53,920	–	53,920
Common Equity Tier 1 capital: regulatory adjustments			
Additional value adjustments	(2,479)	–	(2,479)
Goodwill and intangible assets (net of related tax liability)	(7,618)	–	(7,618)
Deferred tax assets that rely on future profitability excluding those arising from temporary differences	(1,045)	–	(1,045)
Fair value reserves related to gains or losses on cash flow hedges	(270)	–	(270)
Negative amounts resulting from the calculation of expected loss amounts	(2,106)	–	(2,106)
Gains or losses on liabilities at fair value resulting from own credit ^b	600	–	600
Other regulatory adjustments	(119)	–	(119)
Direct and indirect holdings by an institution of own CET1 instruments	(496)	–	(496)
Regulatory adjustments relating to unrealised gains and losses:	(180)	180	–
Total regulatory adjustments to Common equity Tier 1^c	(13,713)	180	(13,533)
Common Equity Tier 1 capital	40,207	180	40,387
Additional Tier 1 (AT1) capital: instruments			
Capital instruments and the related share premium accounts	2,063	–	2,063
of which: classified as equity under IFRS	2,063	–	2,063
Qualifying AT1 capital (including minority interests) issued by subsidiaries and held by third parties	9,726	(9,457)	269
Less instruments issued by subsidiaries subject to phase out ^d	(1,849)	1,849	–
Additional Tier 1 capital	9,940	(7,608)	2,332
Tier 1 capital (T1 = CET1 + AT1)	50,147	(7,428)	42,719
Tier 2 (T2) capital: instruments and provisions			
Qualifying own funds instruments included in T2 capital (including minority interests) issued by subsidiaries and held by third parties	17,343	1,604	18,947
Less instruments issued by subsidiaries subject to phase out ^e	(630)	630	–
Tier 2 capital before regulatory adjustments	16,713	2,234	18,947
Tier 2 capital: regulatory adjustments			
Direct and indirect holdings of own T2 instruments and subordinated loans	(12)	(30)	(42)
Direct and indirect holdings of T2 instruments where the institution has a significant investment in those entities (net of eligible short positions)	–	(1)	(1)
Total regulatory adjustments to Tier 2 capital	(12)	(31)	(43)
Tier 2 capital	16,701	2,203	18,904
Total capital (TC = T1 + T2)	66,848	(5,225)	61,623

Notes

a Reflects the maximum pace of transition applicable under the PRA's transitional rules and assumes 2013 was the first year of transitional rules.

b Note that under CRD IV, the Gains or losses on liabilities at fair value resulting from own credit figure includes own credit on derivatives

c The net long non-significant (£3.5bn) and significant (£1.0bn) holdings in financial sector entities and deferred tax assets arising from temporary differences (£3.7bn) are below the relevant 10% CET1 thresholds that would require a capital deduction

d No amounts are excluded from AT1 as a result of the cap on phase out arrangements of capital instruments

e No amounts are excluded from Tier 2 as a result of the cap on phase out arrangements of capital instruments

Table 12: RWA by business and risk type

This table shows risk weighted assets on a CRD IV basis split by business and risk type.

As at 31.12.13	Credit risk £m	Counterparty credit risk £m	Market risk £m	Operational risk £m	Total CRD IV risk weighted assets £m
UK RBB	37,456	–	–	6,680	44,136
Europe RBB	14,084	4	2	2,128	16,218
Africa RBB	18,838	3	–	3,965	22,806
Barclaycard	33,859	–	–	6,594	40,453
Investment Bank	69,621	58,188	69,029	24,807	221,645
Corporate Banking	63,101	651	–	6,717	70,469
Wealth and Investment Management	13,714	231	74	3,261	17,280
Head Office Functions and Other Operations	2,389	–	–	159	2,548
Total CRD IV risk weighted assets	253,062	59,077	69,105	54,311	435,555

Leverage ratio requirements

CRD IV introduces a non-risk based leverage ratio that is intended to act as a supplementary back stop to the risk based capital measures. The CRD IV leverage ratio is calculated as CRD IV Tier 1 capital divided by CRD IV leverage exposure. Under CRD IV, banks are required to report their leverage ratio for supervisory review purposes from 2014 and from 2015 banks are required to publish their leverage ratios in Pillar 3 disclosures, with the expectation that a binding Pillar 1 requirement will be introduced across the EU from 2018. The EBA is tasked with monitoring banks submissions with regard to the leverage ratio by end 2016 which may result in further changes to the leverage ratio.

The PRA has communicated its expectation that Barclays meets a 3% estimated PRA leverage ratio by June 2014. The estimated PRA leverage ratio is calculated on the fully loaded CRD IV Tier 1 capital base adjusted for certain PRA defined deductions, and a PRA adjusted^a CRD IV leverage exposure measure.

Barclays expects to meet the leverage expectation of 3% communicated by the PRA.

Barclays has disclosed an estimated leverage ratio based on our understanding of the requirements and guidance of CRD IV as currently published and is subject to further change as the rules are fully implemented. The estimated ratio does not take account of the finalisation of the Basel 3 leverage ratio framework issued by the Basel Committee on 12 January 2014.

CRD IV leverage ratio calculation

In calculating the CRD IV leverage ratio the IFRS balance sheet is taken as a starting point and the following key adjustments to total assets have been applied:

- **Derivatives netting adjustment:** regulatory netting applied across asset and liability mark-to-market derivative positions pursuant to legally enforceable bilateral netting agreements and meeting the requirements of CRD IV.
- **Potential Future Exposure (PFE) on derivatives:** regulatory add on for potential future credit exposures, calculated in accordance with the CRD IV mark-to-market method by assigning standardised percentages to the notional values on derivative contracts.
- **Securities Financing Transactions (SFTs) adjustments:** under CRD IV, the IFRS measure of SFTs is replaced with the Financial Collateral Comprehensive Method (FCCM) measure, calculated as an add on equal to exposure less collateral, taking into account master netting agreements and adjusting for volatility haircuts.
- **Undrawn Commitments:** regulatory add-ons relating to off balance sheet undrawn commitments are based on a standardised credit conversion factor of 10% for unconditionally cancellable commitments and 100% for all other commitments. The rules specify relief to be applied to trade finance related undrawn commitments which are deemed to be medium/low risk (20%) and medium risk (50%).

- **Regulatory deductions:** items (comprising goodwill and intangibles, deferred tax asset permanent losses, own paper, cash flow hedge reserve, pension assets and PVA) that are deducted from the capital measure are also deducted from total leverage exposure to ensure consistency between the numerator and denominator.
- **Other adjustments:** includes adjustments required to change from an IFRS scope of consolidation to a regulatory scope of consolidation, adjustments for significant investments in financial sector entities that are consolidated for accounting purposes but not for regulatory purposes, and the removal of IFRS reduction in assets for the recognition of credit risk mitigation and the netting of loans with deposits.
- In addition, in accordance with SS3/13^b the estimated PRA adjusted leverage exposure allows for further adjustments that reduce leverage exposure by £14bn. These adjustments:
 - Exclude potential future exposure on the qualifying central clearing counterparties (QCCPs) legs of client clearing transactions where Barclays does not guarantee the performance of the QCCP to the client.
 - Allow for the netting of assets with cash collateral received for variation margin in relation to derivatives trades to facilitate customer central clearing as well as cash collateral received and posted on Barclays own derivative transactions with QCCPs.

Basel Committee leverage ratio

On 12 January 2014, the Basel Committee announced the finalisation of its revised rules for calculating the Basel 3 leverage ratio. These included a number of elements that would require amendments to CRD IV if adopted in the EU, although implementation timeframes within the EU are not yet clear. Compared to the current CRD IV implementation, the revised rules contain elements that will increase leverage exposure; including capturing a calculation for net written credit derivatives based upon their notional value and the inclusion of netted cash legs of SFTs. The revised rules also include elements that will reduce leverage exposure including, the removal of volatility haircuts in relation to the SFTs add-on, the ability to net down derivative MTM exposures with eligible cash collateral (this element includes the impact of the PRA rule changes, and expands upon them), and more favourable credit conversion factors for undrawn commitments. Based on an initial high level impact analysis we have estimated the changes would decrease the CRD IV leverage ratio by approximately 20 basis points prior to management actions.

Notes

- a Adjusted to avoid creating disincentives to facilitate central clearing for customers and cash variation margin received and posted (as specified under SS3/13).
- b PRA Supervisory Statement SS3/13 on Capital and leverage ratios for major UK banks and building societies published in November 2013.

Leverage ratio calculation

Table 13: Leverage ratio

Fully loaded Leverage Exposure			
	IFRS balance sheet As at 31.12.13 £bn	Leverage exposure As at 31.12.13 £bn	Leverage exposure As at 30.06.13 £bn
Derivatives			
IFRS derivative financial instruments	324	324	403
Additional netting adjustments for derivatives		(260)	(324)
Potential Future Exposure on derivatives		256	308
Total derivatives		320	387
Securities Financing Transaction (SFTs)			
Reverse repurchase agreements and other similar secured lending	187	187	223
Remove IFRS reverse repurchase agreements and other similar secured lending		(187)	(223)
Add leverage exposure measures for SFTs		92	93
Total securities financing transactions		92	93
Other assets and adjustments			
Loans and advances and other assets	801	801	907
Undrawn commitments		179	190
Regulatory deductions and other adjustments		(15)	(18)
Total other assets and adjustments		965	1,079
Total exposure	1,312	1,377	1,559
PRA adjustment to CRD IV leverage exposure		(14)	–
PRA adjusted leverage exposure		1,363	1,559

Leverage Ratio

	Leverage ratio As at 31.12.13 £bn	Leverage ratio As at 30.06.13 £bn
CET1 capital	40.4	38.1
Additional Tier 1 capital	2.3	0.2
Tier 1 capital	42.7	38.3
PRA deductions to CET 1 capital ^a	(2.2)	(4.1)
PRA adjusted Tier 1 capital	40.5	34.2
Fully loaded CRD IV leverage ratio	3.1%	2.5%
PRA leverage ratio	3.0%	2.2%

- The estimated PRA leverage exposure decreased to £1,363bn (June 2013: £1,559bn). Excluding the impact of movements in foreign currency, leverage exposure reduced approximately £140bn driven by reductions in loans and advances, trading portfolio assets and potential future exposure on derivatives.
- Applying the Basel 3 2010 text for the calculation of leverage would result in an estimated leverage exposure of £1,521bn (June 2013: £1,665bn), reflecting an increase of £144bn in the SFT exposure calculation from the CRD IV exposure. The estimated fully loaded leverage ratio would be 2.8% (June 2013: 2.3%) on this basis.

Note

a The PRA adjustment to CET1 capital as at 30 June 2013 included incremental expected loss charges on specific portfolios deemed vulnerable by the PRA and a deduction relating to the calculation of PVA. No adjustment for PVA was applied as at 31 December 2013 as the underlying calculation of CET1 capital has been updated to reflect the agreed change in methodology.

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 business segment, country and industry concentrations, residual maturities, probabilities of default and actual losses.

- Risk weighted assets decreased 2.7% to £233.3bn, driven by a reduction in Exit Quadrant RWAs, foreign exchange movements and improving book quality, offset by book growth in the retail businesses.
- Exposure at default decreased 4.8% to £644.8bn driven by the management of liquidity positions, Exit Quadrant and foreign exchange movements, offset by book growth in the retail businesses.
- We have improved disclosure this year and now provide a banking book reconciliation to facilitate comparison between IFRS and regulatory measures. Additional and enhanced tables are also included for credit risk mitigation, regulatory impairments and expected loss.
- Credit risk RWAs are primarily generated by the following IFRS account classifications- cash and balances at central banks, available for sale financial investments, loans and advances to banks, loans and advances to customers and other assets.

Risk weighted assets for credit risk reduced in the year

Total RWA

-£6.5bn

-£7.7bn

Driven by reductions in Exit Quadrant RWAs, offset by the acquisition of Barclays Direct.

-£4.6bn

Due to foreign exchange movements.

-£4.5bn

Owing to improvements in book quality.

+£6.0bn

Increase in book size, driven by balance sheet growth in our retail businesses.

+£4.2bn

Owing to model updates and methodology changes, driven by forbearance and slotting.

Risk and capital position review >

Analysis of credit risk

Analysis of capital requirements for credit risk and exposures

Table 14: Minimum capital requirements and exposure for credit risk

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

Risk weighted assets and post-credit risk mitigation exposures are analysed by business on pages 36 to 41. Pre-credit risk mitigation exposures are further analysed by geography page 41 and 42, industry pages 43 to 45 and residual maturity pages 46 and 47. Information on the impact of credit risk mitigation on EAD is set out on pages 48 and 49.

Movement explains are detailed by credit exposure class and business on pages 48 and 49.

Credit exposure class	EAD pre-CRM ^a		EAD post-CRM ^a		Capital requirements		
	Year-end £m	Average £m	Year-end £m	Average £m	RWA £m	Average RWA £m	Capital £m
As at 31.12.13							
Standardised approach							
Central governments or central banks	8,845	10,813	8,839	10,807	2,374	2,688	190
Regional governments or local authorities	197	239	197	239	86	109	7
Administrative bodies and non-commercial undertakings	161	268	147	254	110	161	9
Multilateral development banks	–	–	–	–	–	–	–
Institutions	6,043	5,753	5,959	5,669	2,608	2,621	209
Corporates	37,183	41,239	31,535	35,591	30,865	35,032	2,469
Retail	26,914	26,352	26,193	25,631	19,626	19,169	1,570
Secured by mortgages on residential property	18,536	19,213	17,878	18,555	6,779	7,405	542
Secured by mortgages on commercial real estate	985	1,636	982	1,633	778	1,416	62
Past due items	4,183	3,805	4,152	3,774	5,970	5,527	478
Private equity positions	704	734	704	734	1,056	1,101	85
Covered bonds	784	565	784	565	267	165	21
Securitisation positions	277	417	277	417	102	207	8
Collective investment undertakings	329	491	329	491	103	180	8
Other items	3,020	5,669	3,020	5,669	652	751	52
Total standardised approach credit risk exposure	108,161	117,194	100,996	110,029	71,376	76,532	5,710
Foundation IRB approach							
Central governments or central banks	247	276	247	276	101	110	8
Institutions	591	1,001	591	1,001	192	296	16
Corporates	14,918	16,108	14,918	16,108	10,740	11,668	859
Total foundation approach credit risk exposure	15,756	17,385	15,756	17,385	11,033	12,074	883
Advanced IRB approach							
Central governments or central banks	101,655	116,641	101,655	116,641	8,294	7,953	664
Institutions	33,344	29,736	33,344	29,736	3,980	3,764	318
Corporates	131,327	136,038	131,327	136,038	58,928	63,161	4,714
Retail							
– Small and medium enterprises (SME)	9,235	9,452	9,235	9,452	5,823	6,354	466
– Secured by real estate collateral	172,357	171,531	172,357	171,531	31,403	30,090	2,512
– Qualifying revolving retail	36,689	35,884	36,689	35,884	16,687	14,917	1,335
– Other retail	9,038	9,407	9,038	9,407	8,137	8,417	651
Equity	83	62	83	62	307	229	25
Securitisation positions	19,925	22,595	19,925	22,595	3,101	3,479	248
Non-credit obligation assets	14,430	14,745	14,430	14,745	14,195	14,327	1,136
Total advanced IRB credit risk exposure	528,083	546,091	528,083	546,091	150,855	152,691	12,069
Total credit exposure	652,000	680,670	644,835	673,505	233,264	241,297	18,662

Note

a Collateral and guarantees for advanced IRB are included within EAD pre-CRM as these are incorporated in loss given default (LGD) calculations. The average post-CRM EAD is calculated from the last five quarters. This is to show intra-year fluctuations.

Table 14 (Continued)

Credit exposure class	EAD pre-CRM ^a		EAD post-CRM ^a		Capital requirements		
	Year-end £m	Average £m	Year-end £m	Average £m	RWA £m	Average RWA £m	Capital £m
As at 31.12.12							
Standardised approach							
Central governments or central banks	10,775	11,300	10,775	11,300	2,433	3,365	195
Regional governments or local authorities	187	124	187	124	98	59	8
Administrative bodies and non-commercial undertakings	266	294	266	294	199	140	16
Multilateral development banks	14	3	14	3	–	–	–
Institutions	4,947	5,676	4,893	5,622	2,198	2,606	176
Corporates	41,443	43,648	38,045	40,250	37,415	38,980	2,993
Retail	26,791	26,131	25,988	25,328	19,391	18,947	1,551
Secured by mortgages on residential property	15,498	15,282	15,020	14,804	6,447	6,509	516
Secured by mortgages on commercial real estate	1,836	2,440	1,836	2,440	1,626	2,184	130
Past due items	3,072	2,939	3,072	2,939	4,836	4,148	387
Private equity positions	664	903	664	903	995	1,356	80
Covered bonds	401	310	401	310	96	65	8
Securitisation positions	456	406	456	406	282	227	23
Collective investment undertakings	610	640	610	640	237	203	19
Other items	6,919	7,099	6,919	7,099	621	920	50
Total standardised approach credit risk exposure	113,879	117,195	109,146	112,462	76,874	79,709	6,152
Foundation IRB approach							
Central governments or central banks	263	360	263	360	100	51	8
Institutions	1,254	987	1,254	987	319	251	26
Corporates	16,784	16,758	16,784	16,758	12,161	12,359	973
Total foundation approach credit risk exposure	18,301	18,105	18,301	18,105	12,580	12,661	1,007
Advanced IRB approach							
Central governments or central banks	126,345	145,599	126,345	145,599	7,042	4,215	563
Institutions	22,741	26,166	22,741	26,166	3,186	2,975	255
Corporates	137,089	139,019	137,089	139,019	64,250	63,971	5,140
Retail							
– Small and medium enterprises (SME)	9,497	11,573	9,497	11,573	6,466	7,475	517
– Secured by real estate collateral	171,210	169,360	171,210	169,360	29,416	27,985	2,353
– Qualifying revolving retail	35,333	35,139	35,333	35,139	14,111	14,114	1,129
– Other retail	9,674	10,104	9,674	10,104	8,425	8,822	674
Equity	55	48	55	48	204	176	16
Securitisation positions	24,442	25,725	24,442	25,725	3,831	4,154	306
Non-credit obligation assets	13,846	13,724	13,846	13,724	13,380	13,396	1,071
Total advanced IRB credit risk exposure	550,232	576,457	550,232	576,457	150,311	147,283	12,024
Total credit exposure	682,412	711,757	677,679	707,024	239,765	239,653	19,183

Note

a Collateral and guarantees for advanced IRB are included within EAD pre-CRM as these are incorporated in loss given default (LGD) calculations. The average post-CRM EAD is calculated from the last five quarters. This is to show intra-year fluctuations.

Table 15: Banking book reconciliation

This table provides a bridge between the IFRS balance sheet and regulatory exposures subject to credit risk calculations.

The table expands upon table 1 on page 13, which shows the difference between the IFRS and regulatory scope of consolidation. In addition the following balances are excluded for the purposes of determining exposures subject to credit risk calculations:

- Assets not subject to credit risk – this includes items subject to market risk and counterparty credit risk calculations, intangible assets and settlement balances.
- Specific regulatory adjustments – this includes adjustments to account for differences in IFRS and regulatory netting, items treated as regulatory capital deductions and other adjustments to IFRS balances as prescribed by BIPRU.
- Off balance sheet – this captures items that are off balance sheet for the purpose of IFRS disclosures, but within the scope of credit risk calculations. These balances are shown after applying credit conversion factors to reflect the conversion of credit facilities into drawn balances.

The total regulatory exposure is disclosed pre-CRM, as the differences between EAD pre and post-CRM are already expressed through other tables within the document.

As at 31.12.13	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	Balances not subject to credit risk calculations £m	Specific regulatory adjustments £m	Regulatory exposure value of off balance sheet items £m	Total regulatory EAD pre-CRM £m
Assets								
Cash and balances at central banks and items in the course of collection from other banks	46,969	(9)	112	47,072	–	–	–	47,072
Trading portfolio assets	133,069	(85)	–	132,984	(132,984)	–	–	–
Financial assets designated at fair value	38,968	(1,632)	–	37,336	(16,213)	(533)	–	20,590
Derivative financial instruments	324,335	(5)	–	324,330	(324,330)	–	–	–
Available for sale investments	91,756	(2,235)	–	89,521	(895)	389	–	89,015
Loans and advances to banks	37,853	(257)	122	37,718	(21,492)	(820)	2,217	17,623
Loans and advances to customers	430,411	(3,557)	1,338	428,192	(74,885)	(1,053)	112,893	465,147
Reverse repurchase agreements and other similar secured lending	186,779	(21)	–	186,758	(186,758)	–	–	–
Other assets	22,127	(1,769)	(168)	20,190	(8,495)	858	–	12,553
Total assets	1,312,267	(9,570)	1,404	1,304,101	(766,052)	(1,159)	115,110	652,000

Risk and capital position review >

Analysis of credit risk continued

Table 16: Detailed view of exposure at default, post-CRM by business

This table shows exposure at default post-CRM (credit risk mitigation) by business and credit exposure class for credit risk in the banking book.

EAD post-CRM credit exposure class									
As at 31.12.13	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Head Office and Other Operations ^a £m	Total £m
Credit risk									
Standardised approach									
Central governments or central banks	–	265	5,248	911	1,397	553	342	123	8,839
Regional governments or local authorities	–	–	–	–	58	139	–	–	197
Administrative bodies and non-commercial undertakings	–	1	–	–	–	146	–	–	147
Multilateral development banks	–	–	–	–	–	–	–	–	–
Institutions	87	158	488	255	613	3,135	1,213	10	5,959
Corporates	31	987	1,031	550	5,176	18,954	4,750	56	31,535
Retail	527	3,062	1,519	20,327	–	283	475	–	26,193
Secured by mortgages on residential property	4,586	902	269	–	281	230	11,610	–	17,878
Secured by mortgages on commercial real estate	16	243	1	–	42	287	393	–	982
Past due items	290	510	152	1,450	24	1,158	568	–	4,152
Private equity positions	–	–	–	–	623	40	–	41	704
Covered bonds	–	227	–	–	557	–	–	–	784
Securitisation positions	–	–	–	–	277	–	–	–	277
Collective investment undertakings	–	–	2	–	–	–	327	–	329
Other items	1,213	351	482	156	454	293	41	30	3,020
Total standardised approach credit risk exposure	6,750	6,706	9,192	23,649	9,502	25,218	19,719	260	100,996
Foundation IRB approach									
Central governments or central banks	–	–	–	–	239	8	–	–	247
Institutions	–	–	–	–	550	41	–	–	591
Corporates	–	–	5,241	–	5,376	4,006	295	–	14,918
Total foundation approach credit risk exposure	–	–	5,241	–	6,165	4,055	295	–	15,756
Advanced IRB approach									
Central governments or central banks	8,432	1,689	176	196	44,298	25,683	9,855	11,326	101,655
Institutions	1,362	273	28	32	17,349	10,857	1,592	1,851	33,344
Corporates	2,383	98	13	11	64,792	62,512	572	946	131,327
Retail									
– Small and medium enterprises	7,982	–	1,185	–	–	9	59	–	9,235
– Secured by real estate collateral	125,559	32,151	14,182	–	–	–	465	–	172,357
– Qualifying revolving retail	8,959	–	384	27,319	–	–	27	–	36,689
– Other retail	4,828	15	4,173	3	–	–	19	–	9,038
Equity	–	–	–	–	–	–	–	83	83
Securitisation positions	99	–	261	–	18,428	–	–	1,137	19,925
Non-credit obligation assets	1,287	931	1,154	1,458	7,182	1,030	450	938	14,430
Total advanced IRB credit risk exposure	160,891	35,157	21,556	29,019	152,049	100,091	13,039	16,281	528,083
Total credit risk exposure	167,641	41,863	35,989	52,668	167,716	129,364	33,053	16,541	644,835

Note

a From the 1st Jan 2013, liquidity pool assets, and corresponding EAD and RWA balances, have been reallocated from Head Office and the Investment Bank to the businesses to reflect usage.

Risk and capital position review >

Analysis of credit risk continued

Table 16 (Continued)

EAD post-CRM credit exposure class

As at 31.12.12	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Head Office and Other Operations £m	Total £m
Credit risk									
Standardised approach									
Central governments or central banks	–	1,054	5,655	969	2,168	599	330	–	10,775
Regional governments or local authorities	–	–	12	–	84	91	–	–	187
Administrative bodies and non-commercial undertakings	–	2	–	–	–	197	67	–	266
Multilateral development banks	–	–	14	–	–	–	–	–	14
International organisations	–	–	–	–	–	–	–	–	–
Institutions	21	476	437	332	1,313	1,406	908	–	4,893
Corporates	19	1,195	98	565	5,418	24,318	6,234	198	38,045
Retail	741	4,014	1,816	17,709	–	1,347	361	–	25,988
Secured by mortgages on residential property	129	1,143	258	2,287	346	242	10,615	–	15,020
Secured by mortgages on commercial real estate	9	222	1	–	968	376	260	–	1,836
Past due items	206	423	64	1,231	22	816	310	–	3,072
Private equity positions	–	–	–	–	617	42	–	5	664
Covered bonds	–	297	–	–	104	–	–	–	401
Securitisation positions	–	–	–	–	443	13	–	–	456
Collective investment undertakings	–	–	1	–	–	–	609	–	610
Other items	1,777	846	832	431	3,147	746	53	(913)	6,919
Total standardised approach credit risk exposure	2,902	9,672	9,188	23,524	14,630	30,193	19,747	(710)	109,146
Foundation IRB approach									
Central governments or central banks	–	–	1	–	262	–	–	–	263
Institutions	–	–	–	–	1,236	18	–	–	1,254
Corporates	–	–	6,505	–	5,340	4,572	367	–	16,784
Total foundation approach credit risk exposure	–	–	6,506	–	6,838	4,590	367	–	18,301
Advanced IRB approach									
Central governments or central banks	–	–	–	–	96,868	13	–	29,464	126,345
Institutions	1	–	–	–	15,660	1,267	–	5,813	22,741
Corporates	1,712	–	2	–	69,262	66,103	–	10	137,089
Retail	–	–	–	–	–	–	–	–	–
– Small and medium enterprises (SME)	8,055	–	1,421	–	–	20	1	–	9,497
– Secured by real estate collateral	119,047	33,188	18,379	–	–	–	596	–	171,210
– Qualifying revolving retail	8,909	–	481	25,905	–	–	38	–	35,333
– Other retail	4,708	24	4,825	1	–	–	116	–	9,674
Equity	–	–	–	–	–	–	–	55	55
Securitisation positions	–	–	337	–	21,385	–	–	2,720	24,442
Non-credit obligation assets ^a	1,465	1,049	1,442	1,658	7,111	1,154	382	(415)	13,846
Total advanced IRB credit risk exposure	143,897	34,261	26,887	27,564	210,286	68,557	1,133	37,647	550,232
Total credit risk exposure	146,799	43,933	42,581	51,088	231,754	103,340	21,247	36,937	677,679

Note

a Negative balances within non-credit obligation assets relate to tax related netting adjustments recorded within Head Office and other Operations.

Table 16 (Continued)

Exposure at default post-CRM decreased 4.8% to £644.8bn. The key movements by business were as follows:

- **UK RBB** increased 14.2% to £167.6bn, driven by the reallocation of liquidity pool assets from Head Office, the acquisition of Barclays Direct and mortgage balance growth.
- **Europe RBB** decreased 4.7% to £41.9bn, principally due to balance sheet reduction, primarily Exit Quadrant, offset by the reallocation of liquidity pool assets from Head Office.
- **Africa RBB** decreased 15.5% to £36.0bn, driven by the appreciation of GBP against ZAR, offset partially by balance sheet growth.
- **Barclaycard** increased 3.1% to £52.7bn, driven by balance sheet growth across portfolios.
- **The Investment Bank** decreased 27.6% to £167.7bn, principally due to a decrease in exposures to central governments and central banks as part of the management of liquidity positions and the reallocation of liquidity pool assets to the business.
- **Corporate Banking** increased 25.2% to £129.4bn, driven by the reallocation of liquidity pool assets from Head Office and balance sheet growth in UK portfolios, offset by the refocusing of our Corporate Banking international businesses.
- **Wealth and Investment Management** increased 55.6% to £33.1bn, driven by the reallocation of liquidity pool assets from Head Office.
- **Head Office and Other Operations** decreased 55.2% to £16.5bn primarily driven by reallocation of liquidity pool assets to the businesses.

Risk and capital position review >

Analysis of credit risk continued

Table 17: Detailed view of credit risk RWAs by business

This table shows RWAs for credit risk by business, broken down by credit exposure class for credit risk in the banking book.

Risk weighted assets credit exposure class	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Head Office and Other Operations £m	Total £m
As at 31.12.13									
Credit risk									
Standardised approach									
Central governments or central banks	–	–	2,078	–	–	272	4	20	2,374
Regional governments or local authorities	–	–	–	–	58	28	–	–	86
Administrative bodies and non-commercial undertakings	–	1	–	–	–	109	–	–	110
Multilateral development banks	–	–	–	–	–	–	–	–	–
International organisations	–	–	–	–	–	–	–	–	–
Institutions	17	58	214	57	270	1,419	568	5	2,608
Corporates	31	565	1,020	563	5,396	18,605	4,629	56	30,865
Retail	408	2,297	1,141	15,253	–	212	315	–	19,626
Secured by mortgages on residential property	1,648	341	180	–	211	126	4,273	–	6,779
Secured by mortgages on commercial real estate	13	141	1	–	42	191	390	–	778
Past due items	434	710	204	2,168	37	1,488	929	–	5,970
Private equity positions	–	–	–	–	936	59	–	61	1,056
Covered bonds	–	45	–	–	222	–	–	–	267
Securitisation positions	–	–	–	–	102	–	–	–	102
Collective investment undertakings	–	–	2	–	–	–	101	–	103
Other items	88	48	356	29	32	73	–	26	652
Total standardised approach credit risk exposure	2,639	4,206	5,196	18,070	7,306	22,582	11,209	168	71,376
Foundation IRB approach									
Central governments or central banks	–	–	–	–	89	12	–	–	101
Institutions	–	–	–	–	184	8	–	–	192
Corporates	–	–	4,820	–	2,869	2,826	225	–	10,740
Total foundation approach credit risk exposure	–	–	4,820	–	3,142	2,846	225	–	11,033
Advanced IRB approach									
Central governments or central banks	673	135	14	15	3,763	2,051	786	857	8,294
Institutions	205	41	4	5	2,239	976	239	271	3,980
Corporates	1,452	17	6	3	25,032	32,115	101	202	58,928
Retail									
– Small and medium enterprises	5,106	–	675	–	–	9	33	–	5,823
– Secured by real estate collateral	19,335	8,434	3,467	–	–	–	167	–	31,403
– Qualifying revolving retail	1,529	–	107	15,046	–	–	5	–	16,687
– Other retail	5,149	10	2,961	2	–	–	15	–	8,137
Equity	–	–	–	–	–	–	–	307	307
Securitisation positions	29	–	34	–	2,929	–	–	109	3,101
Non-credit obligation assets	1,287	931	1,132	1,408	7,068	981	450	938	14,195
Total advanced IRB credit risk exposure	34,765	9,568	8,400	16,479	41,031	36,132	1,796	2,684	150,855
Total credit risk weighted assets	37,404	13,774	18,416	34,549	51,479	61,560	13,230	2,852	233,264

Table 17 (Continued)

Risk weighted assets credit exposure class

As at 31.12.12	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Head Office and Other Operations £m	Total £m
Credit risk									
Standardised approach									
Central governments or central banks	–	–	1,810	–	260	350	13	–	2,433
Regional governments or local authorities	–	–	12	–	84	2	–	–	98
Administrative bodies and non-commercial undertakings	–	1	–	–	–	173	25	–	199
Multilateral development banks	–	–	–	–	–	–	–	–	–
International organisations	–	–	–	–	–	–	–	–	–
Institutions	4	66	293	98	618	688	431	–	2,198
Corporates	19	702	16	635	5,625	24,070	6,150	198	37,415
Retail	559	3,010	1,362	13,291	–	991	178	–	19,391
Secured by mortgages on residential property	97	428	137	1,394	254	148	3,989	–	6,447
Secured by mortgages on commercial real estate	9	128	1	–	968	261	259	–	1,626
Past due items	401	599	87	1,883	34	1,467	365	–	4,836
Private equity positions	–	–	–	–	925	63	–	7	995
Covered bonds	–	59	–	–	37	–	–	–	96
Securitisation positions	–	–	–	–	269	13	–	–	282
Collective investment undertakings	–	–	1	–	–	–	236	–	237
Other items	74	58	82	25	312	69	1	–	621
Total standardised approach credit risk exposure	1,163	5,051	3,801	17,326	9,386	28,295	11,647	205	76,874
Foundation IRB approach									
Central governments or central banks	–	–	–	–	100	–	–	–	100
Institutions	–	–	–	–	313	6	–	–	319
Corporates	–	–	5,778	–	2,642	3,424	317	–	12,161
Total foundation approach credit risk exposure	–	–	5,778	–	3,055	3,430	317	–	12,580
Advanced IRB approach									
Central governments or central banks	–	–	–	–	3,297	3	–	3,742	7,042
Institutions	1	–	–	–	1,755	215	–	1,215	3,186
Corporates	1,081	–	–	–	32,612	30,546	–	11	64,250
Retail	–	–	–	–	–	–	–	–	–
– Small and medium enterprises (SME)	5,436	–	1,008	–	–	22	–	–	6,466
– Secured by real estate collateral	16,837	7,707	4,634	–	–	–	238	–	29,416
– Qualifying revolving retail	1,599	–	135	12,371	–	–	6	–	14,111
– Other retail	4,982	30	3,334	–	–	–	79	–	8,425
Equity	–	–	–	–	–	–	–	204	204
Securitisation positions	–	–	64	–	3,565	–	–	202	3,831
Non-credit obligation assets ^a	1,465	1,049	1,427	1,586	6,771	1,111	384	(413)	13,380
Total advanced IRB credit risk exposure	31,401	8,786	10,602	13,957	48,000	31,897	707	4,961	150,311
Total credit risk weighted assets	32,564	13,837	20,181	31,283	60,441	63,622	12,671	5,166	239,765

Note

a Negative balances within non-credit obligation assets relate to tax related netting adjustments recorded within Head Office and other Operations.

Table 17 (Continued)

RWAs decreased 2.7% to £233.3bn. The key movements by business were as follows:

- **UK RBB** increased 14.9% to £37.4bn, primarily driven by Barclays Direct and mortgage asset growth.
- **Europe RBB** remained flat at £13.8bn (2012: £13.8bn), with a reduction in Exit Quadrant RWAs offset by changes due to the treatment of forbearance.
- **Africa RBB** decreased 8.7% to £18.4bn, primarily due to the appreciation of GBP against ZAR, partially offset by balance sheet growth.
- **Barclaycard** increased 10.4% to £34.5bn, primarily driven by asset growth and model changes in order to meet changes in regulatory guidance.
- **The Investment Bank** decreased 14.8% to £51.5bn, primarily driven by Exit Quadrant RWAs and improved book quality.
- **Corporate Banking** decreased 3.2% to £61.6bn driven primarily by improvements in book quality and a reduction in Exit Quadrant RWAs, offset by the reallocation of liquidity pool assets previously held centrally.
- **Wealth and Investment Management** increased 4.4% to £13.2bn, driven by reallocation of liquidity pool assets previously held centrally, offset by improvements to the application of collateral to credit exposures.
- **Head Office and Other Operations** decreased 44.8% to £2.9bn, primarily driven by the reallocation of liquidity pool assets to the businesses.

Table 18: Geographic analysis of credit exposure

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

EAD pre-CRM credit exposure class	United Kingdom £m	Europe £m	Americas £m	Africa and Middle East £m	Asia £m	Total £m
As at 31.12.13						
Standardised approach						
Central governments or central banks	161	621	810	7,072	181	8,845
Regional governments or local authorities	73	66	58	–	–	197
Administrative bodies and non-commercial undertakings	1	160	–	–	–	161
Institutions	865	1,193	688	629	2,668	6,043
Corporates	9,482	10,808	9,286	4,702	2,905	37,183
Retail	8,563	5,952	9,856	2,385	158	26,914
Secured by mortgages on residential property	12,271	3,333	1,499	1,014	419	18,536
Secured by mortgages on commercial real estate	244	638	56	13	34	985
Past due items	1,770	1,705	442	242	24	4,183
Private equity positions	179	179	231	38	77	704
Covered bonds	–	784	–	–	–	784
Securitisation positions	277	–	–	–	–	277
Collective investment undertakings	–	327	–	2	–	329
Other items	2,099	430	37	438	16	3,020
Total standardised approach credit risk exposure	35,985	26,196	22,963	16,535	6,482	108,161
Foundation IRB approach						
Central governments or central banks	–	20	–	227	–	247
Institutions	14	17	58	492	10	591
Corporates	163	183	109	14,463	–	14,918
Total foundation approach credit risk exposure	177	220	167	15,182	10	15,756
Advanced IRB approach						
Central governments or central banks	28,137	52,539	16,579	1,050	3,350	101,655
Institutions	13,021	9,819	8,892	637	975	33,344
Corporates	69,723	20,379	38,453	783	1,989	131,327
Retail	170,107	34,559	34	22,608	11	227,319
Equity	83	–	–	–	–	83
Securitisation positions	5,764	1,936	11,652	343	230	19,925
Non-credit obligation assets	6,412	2,010	4,124	1,444	440	14,430
Total advanced IRB credit risk exposure	293,247	121,242	79,734	26,865	6,995	528,083
Total credit risk exposure	329,409	147,658	102,864	58,582	13,487	652,000

Table 18 (Continued)

EAD pre-CRM credit exposure class	United Kingdom £m	Europe £m	Americas £m	Africa and Middle East £m	Asia £m	Total £m
As at 31.12.12						
Standardised approach						
Central governments or central banks	41	1,349	889	8,129	367	10,775
Regional governments or local authorities	9	81	76	21	–	187
Administrative bodies and non-commercial undertakings	54	212	–	–	–	266
Institutions	525	1,590	792	505	1,549	4,961
Corporates	11,862	12,405	9,733	4,942	2,501	41,443
Retail	7,436	6,691	9,059	3,408	197	26,791
Secured by mortgages on residential property	9,410	3,318	1,451	908	411	15,498
Secured by mortgages on commercial real estate	254	897	608	1	76	1,836
Past due items	1,235	1,336	333	135	33	3,072
Private equity positions	163	127	246	49	79	664
Covered bonds	–	401	–	–	–	401
Securitisation positions	351	73	19	–	13	456
Collective investment undertakings	–	609	–	1	–	610
Other items	4,970	1,024	112	748	65	6,919
Total standardised approach credit risk exposure	36,310	30,113	23,318	18,847	5,291	113,879
Foundation IRB approach						
Central governments or central banks	–	24	–	239	–	263
Institutions	69	36	148	992	9	1,254
Corporates	12	141	98	16,533	–	16,784
Total foundation approach credit risk exposure	81	201	246	17,764	9	18,301
Advanced IRB approach						
Central governments or central banks	15,750	91,226	13,127	1,184	5,058	126,345
Institutions	8,399	6,965	5,365	543	1,469	22,741
Corporates	78,165	19,298	36,544	874	2,208	137,089
Retail	161,973	35,418	34	28,278	11	225,714
Equity	55	–	–	–	–	55
Securitisation positions	7,669	3,285	12,529	451	508	24,442
Non-credit obligation assets	6,245	2,116	3,225	1,781	479	13,846
Total advanced IRB credit risk exposure	278,256	158,308	70,824	33,111	9,733	550,232
Total credit risk exposure	314,647	188,622	94,388	69,722	15,033	682,412

Exposures treated under the **standardised approach** reduced 5.0% to £108.2bn. This was mainly reflected in Europe, Africa and the Middle East, partly offset by Asia:

- Exposure in Europe reduced 13.0% to £26.2bn, primarily within corporate and retail categories driven by Exit Quadrant, a reduction in central government exposures and a decrease in other items driven by a reduction in cash held at retail branches.
- Exposure in Africa and the Middle East reduced 12.3% to £16.5bn, driven by the appreciation of GBP against ZAR, lower central bank exposures in the African subsidiary, offset by retail asset growth.
- These reductions were partly offset by Asia, where exposures increased 22.5% to £6.5bn, owing to an increase in lending to financial institutions (primarily China and Korea) and corporates (primarily Singapore).

Exposures treated under the **foundation IRB approach** reduced 13.9% to £15.8bn, primarily within Africa and the Middle East, as this approach is used by our African subsidiary. The overall decrease was principally driven by the appreciation of GBP against ZAR, partly offset by increased lending to corporates.

Exposures under the **advanced IRB approach** reduced 4.0% to £528.1bn, reflecting offsetting movements in Europe and the United Kingdom:

- Exposures in Europe reduced 23.4% to £121.2bn, primarily driven by exposures to central governments as part of the management of liquidity positions.
- Exposures in the United Kingdom increased 5.4% to £293.2bn, primarily driven by exposures to central governments as part of the management of liquidity positions, coupled with increased retail mortgage lending.

Risk and capital position review >

Analysis of credit risk continued

Table 19: Industry analysis of credit exposure

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

EAD pre-CRM credit exposure class													
As at 31.12.13	Government and central banks £m	Banks £m	Other financial institutions £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Business and other services £m	Home loans £m	Cards, unsecured loans, other personal lending £m	Other £m	Total £m
Standardised approach													
Central governments or central banks	8,845	-	-	-	-	-	-	-	-	-	-	-	8,845
Regional governments or local authorities	-	-	-	-	-	-	32	-	152	-	-	13	197
Administrative bodies and non-commercial undertakings	-	-	-	-	-	-	35	-	97	-	-	29	161
Institutions	-	4,693	835	4	-	1	66	119	227	-	-	98	6,043
Corporates	-	73	5,783	5,153	704	1,745	2,223	3,736	10,280	3	5,263	2,220	37,183
Retail	-	-	19	37	28	183	230	107	1,138	1,900	23,231	41	26,914
Secured by mortgages on residential property	-	-	585	5	14	820	-	14	2,443	6,287	8,368	-	18,536
Secured by mortgages on commercial real estate	-	-	77	58	22	185	1	138	388	2	79	35	985
Past due items	-	-	67	156	94	655	26	223	276	355	2,045	286	4,183
Private equity positions	-	-	344	18	10	11	27	21	272	-	-	1	704
Covered bonds	-	227	557	-	-	-	-	-	-	-	-	-	784
Securitisation positions	-	-	277	-	-	-	-	-	-	-	-	-	277
Collective investment undertakings	-	-	327	-	-	-	-	-	-	-	2	-	329
Other items	-	402	-	-	-	-	-	24	-	-	-	2,594	3,020
Total standardised approach credit exposure	8,845	5,395	8,871	5,431	872	3,600	2,640	4,382	15,273	8,547	38,988	5,317	108,161
Foundation IRB approach													
Central governments or central banks	247	-	-	-	-	-	-	-	-	-	-	-	247
Institutions	-	591	-	-	-	-	-	-	-	-	-	-	591
Corporates	-	-	1,159	2,221	393	1,470	601	1,890	4,771	-	-	2,413	14,918
Total foundation IRB approach credit exposure	247	591	1,159	2,221	393	1,470	601	1,890	4,771	-	-	2,413	15,756
Advanced IRB approach													
Central governments or central banks	101,655	-	-	-	-	-	-	-	-	-	-	-	101,655
Institutions	-	24,613	2,575	-	-	-	-	-	5,855	-	-	301	33,344
Corporates	-	29	16,629	16,962	4,186	26,433	19,110	11,614	25,379	-	21	10,964	131,327
Retail	-	-	30	491	502	1,555	11	2,009	2,342	171,923	43,131	5,325	227,319
Equity	-	-	83	-	-	-	-	-	-	-	-	-	83
Securitisation positions	-	-	19,826	-	-	99	-	-	-	-	-	-	19,925
Non-credit obligation assets	-	1,310	-	-	-	-	-	-	-	-	-	13,120	14,430
Total advanced IRB approach credit exposure	101,655	25,952	39,143	17,453	4,688	28,087	19,121	13,623	33,576	171,923	43,152	29,710	528,083
Total credit exposures	110,747	31,938	49,173	25,105	5,953	33,157	22,362	19,895	53,620	180,470	82,140	37,440	652,000

Table 19 (Continued)

EAD pre-CRM credit exposure class													
As at 31.12.12	Government and central banks £m	Banks £m	Other financial institutions £m	Manufacturing £m	Construction £m	Property £m	Energy and water £m	Wholesale and retail, distribution and leisure £m	Business and other services £m	Home loans £m	Cards, unsecured loans, other personal lending £m	Other £m	Total £m
Standardised approach													
Central governments or central banks													
Central governments or central banks	10,775	-	-	-	-	-	-	-	-	-	-	-	10,775
Regional governments or local authorities													
Regional governments or local authorities	-	-	-	-	-	-	33	-	139	-	-	15	187
Administrative bodies and non-commercial undertakings													
Administrative bodies and non-commercial undertakings	-	-	42	-	-	-	107	-	70	-	-	47	266
Institutions													
Institutions	-	4,029	652	3	-	2	-	-	221	-	31	23	4,961
Corporates													
Corporates	-	153	7,739	5,000	998	3,922	2,399	4,042	10,027	2	4,301	2,860	41,443
Retail													
Retail	-	-	193	243	75	223	244	249	1,128	584	23,793	59	26,791
Secured by mortgages on residential property													
Secured by mortgages on residential property	-	-	870	11	53	1,049	5	44	2,399	4,237	6,822	8	15,498
Secured by mortgages on commercial real estate													
Secured by mortgages on commercial real estate	-	-	106	83	38	1,045	4	227	273	9	13	38	1,836
Past due items													
Past due items	-	-	85	94	95	458	10	134	248	389	1,521	38	3,072
Private equity positions													
Private equity positions	-	-	320	34	10	10	29	14	232	-	-	15	664
Covered bonds													
Covered bonds	-	319	82	-	-	-	-	-	-	-	-	-	401
Securitisation positions													
Securitisation positions	-	-	73	-	-	285	-	25	73	-	-	-	456
Collective investment undertakings													
Collective investment undertakings	-	-	610	-	-	-	-	-	-	-	-	-	610
Other items													
Other items	-	92	-	-	-	-	-	(14)	3	-	-	6,838	6,919
Total standardised approach credit exposure	10,775	4,593	10,772	5,468	1,269	6,994	2,831	4,721	14,813	5,221	36,481	9,941	113,879
Foundation IRB approach													
Central governments or central banks													
Central governments or central banks	-	119	-	10	-	-	-	-	97	-	-	37	263
Institutions													
Institutions	-	1,224	-	-	-	-	30	-	-	-	-	-	1,254
Corporates													
Corporates	-	-	1,662	2,132	535	2,152	683	2,198	4,545	-	-	2,877	16,784
Total foundation IRB approach credit exposure	-	1,343	1,662	2,142	535	2,152	713	2,198	4,642	-	-	2,914	18,301
Advanced IRB approach													
Central governments or central banks													
Central governments or central banks	126,345	-	-	-	-	-	-	-	-	-	-	-	126,345
Institutions													
Institutions	-	21,734	737	-	-	-	-	-	270	-	-	-	22,741
Corporates													
Corporates	-	47	15,132	17,689	4,090	25,361	18,362	12,328	33,551	-	3	10,526	137,089
Retail													
Retail	-	-	59	792	668	1,871	34	2,496	3,595	168,653	41,823	5,723	225,714
Equity													
Equity	-	-	55	-	-	-	-	-	-	-	-	-	55
Securitisation positions													
Securitisation positions	-	-	23,634	-	-	762	-	-	46	-	-	-	24,442
Non-credit obligation assets													
Non-credit obligation assets	-	1,412	-	-	-	-	-	-	-	-	-	12,434	13,846
Total advanced IRB approach credit exposure	126,345	23,193	39,617	18,481	4,758	27,994	18,396	14,824	37,462	168,653	41,826	28,683	550,232
Total credit exposures	137,120	29,129	52,051	26,091	6,562	37,140	21,940	21,743	56,917	173,874	78,307	41,538	682,412

Table 19 (Continued)

Exposures treated under the **standardised approach** reduced 5.0% to £108.2bn. This was driven by other, property, government and central banks, and other financial institutions, partly offset by increases in home loans and exposures to banks and cards, unsecured and other personal lending.

- Other reduced by 46.5% to £5.3bn, driven primarily by other Items. This relates to a change in methodology for the treatment of current tax assets for which the credit risk calculation is now applied on a net basis (this change has no significant RWA impact).
- Property exposures reduced 48.5% to £3.6bn driven by the reclassification of exposures subject to slotting to the advanced IRB approach and decreased corporate lending in Barclays Wealth and Investment Management.
- Governments and central bank exposures reduced 17.9% to £8.8bn, primarily driven by lower central bank exposures in our African subsidiary.
- Exposures to other financial institutions reduced 17.6% to £8.9bn, due to a reduction in lending to larger businesses in the United Kingdom

Offset by:

- Home Loans increased 63.7% to £8.5bn, mainly driven by the acquisition of Barclays Direct.
- Cards, unsecured loans and other personal lending increased 6.9% to £39.0bn, driven by balance sheet growth in Barclays Wealth and Investment Management, primarily owing to increased loans and advances.

Exposures treated under the **foundation IRB approach** reduced 13.9% to £15.8bn, driven by the appreciation of GBP against ZAR.

Exposures under the **advanced IRB approach** reduced 4.0% to £528.1bn, driven by exposures to governments and central banks and business and other services, partly offset by home loans and banks:

- Governments and central bank exposure reduced 19.5% to £101.7bn, primarily as a result of liquidity management.
- Business and other services exposure reduced 10.4% to £33.6bn, driven by a reduction in exposures to social housing and local authorities.
- Home loans increased 1.9% to £171.9bn, driven by new mortgage lending.
- Exposures to banks increased by 11.9% to £26.0bn, primarily driven by exposure to institutions within the Investment Bank.

Table 20: Residual maturity analysis credit exposures

This table shows exposure at default pre-CRM (credit risk mitigation), 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.

EAD pre-CRM Credit exposure class	On demand and qualifying revolving £m	Under one year £m	Over one year but not more than three years £m	Over three years but not more than five years £m	Over five years but not more than ten years £m	Over ten years or undated ^a £m	Total £m
As at 31.12.13							
Standardised approach							
Central governments or central banks	4,773	3,126	586	117	199	44	8,845
Regional governments or local authorities	–	112	13	20	–	52	197
Administrative bodies and non-commercial undertakings	36	74	38	2	6	5	161
Institutions	415	5,067	218	38	108	197	6,043
Corporates	1,954	15,961	8,262	5,853	2,856	2,297	37,183
Retail	16,079	1,318	2,361	2,369	4,279	508	26,914
Secured by mortgages on residential property	7	2,043	3,291	3,997	4,110	5,088	18,536
Secured by mortgages on commercial real estate	–	182	139	149	272	243	985
Past due items	1,727	820	339	271	790	236	4,183
Private equity	–	8	15	57	–	624	704
Covered bonds	–	58	617	27	77	5	784
Securitisation positions	–	1	–	–	–	276	277
Collective investment undertakings	2	301	16	10	–	–	329
Other items	132	160	91	–	–	2,637	3,020
Total standardised approach credit risk exposure	25,125	29,231	15,986	12,910	12,697	12,212	108,161
Foundation IRB approach							
Central governments or central banks	–	–	247	–	–	–	247
Institutions	–	9	459	44	79	–	591
Corporates	3,393	1	7,755	645	3,109	15	14,918
Total foundation IRB approach credit risk exposure	3,393	10	8,461	689	3,188	15	15,756
Advanced IRB approach							
Central governments or central banks	32,331	11,927	12,298	11,234	21,578	12,287	101,655
Institutions	3,764	12,504	7,429	2,494	1,937	5,216	33,344
Corporates	7,211	17,350	37,346	42,112	5,166	22,142	131,327
Retail	41,093	4,124	5,834	11,299	22,255	142,714	227,319
Equity	–	–	83	–	–	–	83
Securitisation positions	–	7,013	4,755	539	4,464	3,154	19,925
Non-credit obligation assets	263	1,047	213	–	–	12,907	14,430
Total advanced IRB credit risk exposure	84,662	53,965	67,958	67,678	55,400	198,420	528,083
Total credit risk exposure	113,180	83,206	92,405	81,277	71,285	210,647	652,000

Note

a The over ten years or undated category includes some items without contractual maturity such as cash and tax assets. These are found in the other items and non-credit obligations assets lines.

Table 20 (Continued)

EAD pre-CRM Credit exposure class							
	On demand and qualifying revolving £m	Under one year £m	Over one year but not more than three years £m	Over three years but not more than five years £m	Over five years but not more than ten years £m	Over ten years or undated £m	Total £m
As at 31.12.12							
Standardised approach							
Central governments or central banks	6,281	2,923	1,448	49	28	46	10,775
Regional governments or local authorities	22	63	6	18	–	78	187
Administrative bodies and non-commercial undertakings	–	135	81	31	2	17	266
Institutions	1,222	2,775	640	185	21	118	4,961
Corporates	1,512	18,595	7,480	7,058	4,163	2,635	41,443
Retail	14,687	1,922	3,774	2,707	3,072	629	26,791
Secured by mortgages on residential property	268	2,170	2,491	3,675	3,677	3,217	15,498
Secured by mortgages on commercial real estate	5	75	159	948	341	308	1,836
Past due items	1,485	537	145	156	309	440	3,072
Private equity	–	9	14	24	–	617	664
Covered bonds	–	96	143	40	120	2	401
Securitisation positions	–	–	54	–	98	304	456
Collective investment undertakings	1	582	–	27	–	–	610
Other items	192	45	33	–	1	6,648	6,919
Total standardised approach credit risk exposure	25,675	29,927	16,468	14,918	11,832	15,059	113,879
Foundation IRB approach							
Central governments or central banks	–	1	262	–	–	–	263
Institutions	–	19	974	93	168	–	1,254
Corporates	3,818	1	8,724	726	3,498	17	16,784
Total foundation IRB approach credit risk exposure	3,818	21	9,960	819	3,666	17	18,301
Advanced IRB approach							
Central governments or central banks	31,624	56,536	8,921	8,882	12,534	7,848	126,345
Institutions	2,470	9,480	6,785	2,929	970	107	22,741
Corporates	6,886	18,285	32,611	42,869	6,463	29,975	137,089
Retail	41,015	3,847	5,463	10,910	22,171	142,308	225,714
Equity	–	–	55	–	–	–	55
Securitisation positions	–	5,591	3,378	283	8,412	6,778	24,442
Non-credit obligation assets	–	408	–	–	–	13,438	13,846
Total advanced IRB credit risk exposure	81,995	94,147	57,213	65,873	50,550	200,454	550,232
Total credit risk exposure	111,488	124,095	83,641	81,610	66,048	215,530	682,412

Exposures treated under the **standardised approach** reduced 5.0% to £108.2bn, driven by exposures due in over three years but less than five years and exposures due in more than ten years or undated:

- Exposures over ten years or undated decreased by 18.9% to £12.2bn, driven by other Items, partly offset by exposures secured by mortgages on residential property. Other items reduced following a change in methodology for the treatment of current tax, whereby a credit risk calculation is now applied on net balances (this change has no significant RWA impact). The increase in residential mortgages is due to the acquisition of Barclays Direct.
- Exposures over three years but not more than five years decreased by 13.5% to £12.9bn, driven by corporate exposures, owing to a decrease in term loans within Corporate Banking.

Exposures treated under the **foundation IRB approach** reduced by 13.9% to £15.8bn, reflecting the appreciation of GBP against ZAR, offset by an increase in on demand and qualifying revolving, driven by increased corporate lending.

Exposures under the **advanced IRB approach** reduced by 4.0% to £528.1bn, driven by exposures due in under one year, partly offset by exposures due in over one year but not more than three years:

- Exposures due in under one year decreased by 42.7% to £54.0bn, driven by lower exposure to central governments as part of the management of liquidity positions.
- Exposures due in over one year but less than three years increased by 18.8% to £68.0bn, due to increased corporate lending in Corporate Banking, primarily term loans, and corporate bond holdings within the Investment Bank. Exposures to central governments and central banks also increased owing to increased sovereign bond holdings as part of the management of liquidity positions.

Table 21: Collateral and guarantees for standardised approach

This table shows credit risk exposures covered by eligible financial collateral, subject to standardised calculations. Under this approach, eligible financial collateral is used to reduce exposure, before a risk weight is applied. The impact of this upon EAD pre-CRM is shown below.

Financial collateral includes, but is not exclusive to, cash, debt securities, equities and gold. Collateral for retail mortgages is accounted for directly in the loss given default measure under the standardised approach. These amounts are not separately shown in this table.

Credit exposure class	EAD Pre-CRM £m	Financial collateral £m	EAD post-CRM £m
As at 31.12.13			
Central governments or central banks	8,845	6	8,839
Regional governments or local authorities	197	–	197
Administrative bodies and non-commercial undertakings	161	14	147
Multilateral development banks	–	–	–
Institutions	6,043	84	5,959
Corporates	37,183	5,648	31,535
Retail	26,914	721	26,193
Secured by mortgages on residential property	18,536	658	17,878
Secured by mortgages on commercial real estate	985	3	982
Past due items	4,183	31	4,152
Private equity positions	704	–	704
Covered bonds	784	–	784
Securitisation positions	277	–	277
Collective investment undertakings	329	–	329
Other items	3,020	–	3,020
Total	108,161	7,165	100,996
As at 31.12.12			
Central governments or central banks	10,775	–	10,775
Regional governments or local authorities	187	–	187
Administrative bodies and non-commercial undertakings	266	–	266
Multilateral development banks	14	–	14
Institutions	4,947	54	4,893
Corporates	41,443	3,398	38,045
Retail	26,791	803	25,988
Secured by mortgages on residential property	15,498	478	15,020
Secured by mortgages on commercial real estate	1,836	–	1,836
Past due items	3,072	–	3,072
Private equity positions	664	–	664
Covered bonds	401	–	401
Securitisation positions	456	–	456
Collective investment undertakings	610	–	610
Other items	6,919	–	6,919
Total	113,879	4,733	109,146

Exposures covered by collateral and guarantees increased by 51.4% to £7.2bn, primarily due to the posting of financial collateral against lending in Wealth and Investment Management and Corporate Banking.

Table 22: Collateral and guarantees for IRB approach

Where exposures are subject to advanced calculations, Barclays reflects eligible collateral or guarantees through the downturn loss given default (LGD), as opposed to reducing exposure value. For the foundation IRB approach, LGD is not modelled, and collateral is explicitly reported and applied in accordance with regulatory formulas. For advanced IRB calculations, LGDs are modelled with the use of various and often correlated factors, meaning that to show the discrete effect of CRM for such exposures is not possible. The below table shows the exposure value covered by eligible collateral or guarantees for exposures subject to the foundation IRB approach only.

IRB exposure class	Foundation IRB	
	Total exposure – after netting and volatility adjustments covered by eligible financial collateral £m	Total exposure – after netting and volatility adjustments covered by other eligible collateral £m
As at 31.12.13		
Central governments or central banks	15	–
Corporates	99	323
Total	114	323
As at 31.12.12		
Central governments or central banks	26	–
Corporates	137	448
Total	163	448

Other eligible collateral decreased 27.9% to £0.3bn driven by a reduction in the value of underlying exposures owing to the appreciation of GBP against ZAR.

Credit quality analyses of standardised exposures

External credit assessment institutions (ECAIs)

Under the standardised approach credit ratings assigned by credit rating agencies are used in the calculation of RWAs. The PRA determines which agencies may be used to determine the correct risk weight. Barclays uses ratings assigned by the following agencies for credit risk calculations:

- Standard & Poor's
- Moody's
- Fitch

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

Rated and Unrated counterparties

The following section summarises the rules governing standardised calculations.

Each exposure must be assigned to one of six credit quality steps if a rating is available, as defined in the table below. After assignment to a quality step, exposure class and maturity are then used to determine the risk weight percentage. Exposures cannot be assigned a risk weight lower than that of the sovereign risk of the country in which the asset is located. The following table is a simplified version of the risk weight allocation process.

Where a credit rating is not available, a default treatment is applied as specified by regulatory guidance. In most cases this default risk weight equates to that which is applied to credit quality step 3.

Table 23: Credit rating agencies and credit quality steps under the standardised approach^b

Credit Quality Step	Standard and Poor's	Moody's	Fitch
Credit Quality Step 1	AAA to AA-	Aaa 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

Notes

a The rating agency DBRS is used to calculate risk weight for securitisation exposures only. Please see page 146 for further details.

b Information on the association of external ratings to credit quality steps can be found at http://www.fsa.gov.uk/pubs/international/ecais_standardised.pdf.

Table 24: 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	Central government and central banks	Corporate	Institutions greater than 3 months maturity
Credit quality step 1	0%	20%	20%
Credit quality step 2	20%	50%	50%
Credit quality step 3	50%	100%	50%
Credit quality step 4	100%	100%	100%
Credit quality step 5	100%	150%	100%
Credit quality step 6	150%	150%	150%

Retail exposures are generally assigned a risk weight of 75%. More detailed framework is applied to exposures secured on residential or commercial property, in order to recognise credit risk mitigation.

Table 25: Credit quality step analysis of pre-CRM exposure and capital deductions under the standardised approach

This table shows exposure at default pre-CRM, broken down by credit exposure class and credit quality step. This table includes exposures subject to the standardised approach only. The uniform regulatory treatment is equivalent, in most cases, to credit quality step 3 and is applied where a rating is not available or has not been used for the RWA calculation. This is the case for the majority of retail and smaller business customers.

EAD pre-CRM credit exposure class	Credit quality step 1 £m	Credit quality step 2 £m	Credit quality step 3 £m	Credit quality step 4 £m	Credit quality step 5 £m	Credit quality step 6 £m	Uniform regulatory treatment £m	Total £m	Deduction from capital resources £m
As at 31.12.13									
Central governments or central banks	1,261	184	436	–	1,051	–	5,913	8,845	–
Regional governments or local authorities	–	–	–	20	–	–	177	197	–
Administrative bodies and non-commercial undertakings	36	–	–	–	25	–	100	161	–
Institutions	604	694	471	61	–	181	4,032	6,043	–
Corporates	14	1,234	473	107	48	70	35,237	37,183	–
Retail	–	–	–	–	–	–	26,914	26,914	–
Secured by mortgages on residential property	–	–	–	–	–	–	18,536	18,536	–
Secured by mortgages on commercial real estate	–	–	–	–	–	–	985	985	–
Past due items	–	–	–	–	–	–	4,183	4,183	–
Private equity	–	–	–	–	–	–	704	704	766
Covered bonds	419	227	11	–	–	–	127	784	–
Collective investment undertakings	196	20	111	–	–	–	2	329	–
Other items	–	–	–	–	–	–	3,020	3,020	–
Securitisation positions	–	–	–	–	–	–	277	277	–
Total standardised approach credit exposure/capital	2,530	2,359	1,502	188	1,124	251	100,207	108,161	766
As at 31.12.12									
Central governments or central banks	1,689	186	751	165	276	–	7,708	10,775	–
Regional governments or local authorities	–	–	–	16	–	–	171	187	–
Administrative bodies and non-commercial undertakings	–	–	–	42	–	–	224	266	–
Institutions	257	466	679	88	–	4	3,467	4,961	–
Corporates	–	1,073	429	303	86	220	39,332	41,443	–
Retail	–	–	–	–	–	–	26,791	26,791	–
Secured by mortgages on residential property	–	–	–	–	–	–	15,498	15,498	–
Secured by mortgages on commercial real estate	–	–	–	–	–	–	1,836	1,836	–
Past due items	–	–	–	–	–	–	3,072	3,072	–
Private equity	–	–	–	–	–	–	664	664	739
Covered bonds	88	293	20	–	–	–	–	401	–
Collective investment undertakings	221	387	–	–	–	–	2	610	–
Other items	–	–	–	–	–	–	6,919	6,919	–
Securitisation positions	–	–	–	–	–	–	456	456	–
Total standardised approach credit exposure/capital	2,255	2,405	1,879	614	362	224	106,140	113,879	739

Table 25: (Continued)

Exposures subject to the **standardised approach** decreased by 5.0% to £108.2bn, primarily driven by movements in uniform regulatory treatment and credit quality steps 3 and 4, offset by an increase in credit quality step 5.

- Uniform regulatory treatment decreased 8.2% to £93.0bn, driven by lower central bank exposures in our African subsidiary, a reduction in corporate lending within our European business, the reclassification of slotting exposures to the IRB approach and the change in treatment for current tax assets (related credit risk calculation is now applied on net balances, this change has no significant RWA impact).
- Credit quality step 3 decreased by 20.1% to £1.5bn, driven by a decrease in exposures to European central banks, and with a decrease in exposures to Asian institutions.
- Credit quality step 4 decreased by 69.4% to £0.2bn, driven by Exit Quadrant assets.
- Offset by: Credit quality step 5 increased by 210.5% to £1.1bn, driven by exposures to central governments within Africa RBB.

Table 26: Credit quality step analysis of post-CRM exposure and capital deductions under the standardised approach

The difference between exposure at default pre-CRM set out in table 25 and exposures at default post-CRM in table 26 below is the impact of CRM shown in table 21 on page 48.

EAD pre-CRM credit exposure class	Credit quality step 1	Credit quality step 2	Credit quality step 3	Credit quality step 4	Credit quality step 5	Credit quality step 6	Uniform regulatory treatment	Total	Deduction from capital resources
	£m	£m	£m	£m	£m	£m	£m		
As at 31.12.13									
Central governments or central banks	1,261	184	436	–	1,051	–	5,907	8,839	–
Regional governments or local authorities	–	–	–	20	–	–	177	197	–
Administrative bodies and non-commercial undertakings	36	–	–	–	25	–	86	147	–
Institutions	604	694	471	61	–	181	3,948	5,959	–
Corporates	14	1,234	473	107	48	70	29,589	31,535	–
Retail	–	–	–	–	–	–	26,193	26,193	–
Secured by mortgages on residential property	–	–	–	–	–	–	17,878	17,878	–
Secured by mortgages on commercial real estate	–	–	–	–	–	–	982	982	–
Past due items	–	–	–	–	–	–	4,152	4,152	–
Private equity	–	–	–	–	–	–	704	704	766
Covered bonds	419	227	11	–	–	–	127	784	–
Collective investment undertakings	196	20	111	–	–	–	2	329	–
Other items	–	–	–	–	–	–	3,020	3,020	–
Securitisation positions	–	–	–	–	–	–	277	277	–
Total standardised approach credit exposure/capital	2,530	2,359	1,502	188	1,124	251	93,042	100,996	766
As at 31.12.12									
Central governments or central banks	1,689	186	751	165	276	–	7,708	10,775	–
Regional governments or local authorities	–	–	–	16	–	–	171	187	–
Administrative bodies and non-commercial undertakings	–	–	–	42	–	–	224	266	–
Institutions	257	480	665	88	–	4	3,413	4,907	–
Corporates	–	1,073	429	303	86	220	35,934	38,045	–
Retail	–	–	–	–	–	–	25,988	25,988	–
Secured by mortgages on residential property	–	–	–	–	–	–	15,020	15,020	–
Secured by mortgages on commercial real estate	–	–	–	–	–	–	1,836	1,836	–
Past due items	–	–	–	–	–	–	3,072	3,072	–
Private equity	–	–	–	–	–	–	664	664	739
Covered bonds	88	293	20	–	–	–	–	401	–
Collective investment undertakings	221	387	–	–	–	–	2	610	–
Other items	–	–	–	–	–	–	6,919	6,919	–
Securitisation positions	–	–	–	–	–	–	456	456	–
Total standardised approach credit exposure/capital	2,255	2,419	1,865	614	362	224	101,407	109,146	739

Credit quality analysis of IRB 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 pages 118 to 127 for a discussion of IRB models.

Table 27: Internal default grade probabilities and mapping to external ratings

This table shows Barclays internal view of the relationship between external rating agency grades and our own internal scale for default grade bands (DG bands) for wholesale exposures. Note that Barclays DG system follows estimation rules and governance that may differ from those of ratings agencies. As such this relationship must be seen as approximate and dynamic through time.

DG band	Default probability			Financial statements description	S&P	Moody's
	>=Min	Mid	<Max			
1	0.00%	0.01%	0.02%	Strong	AAA	Aaa
2	0.02%	0.03%	0.03%		AA+	Aa1
3	0.03%	0.04%	0.05%		AA/AA-	Aa2/Aa3
4	0.05%	0.08%	0.10%		A+/A/A-	A1/A2/A3
5	0.10%	0.13%	0.15%		BBB+	Baa1
6	0.15%	0.18%	0.20%			
7	0.20%	0.23%	0.25%		BBB	Baa2
8	0.25%	0.28%	0.30%			
9	0.30%	0.35%	0.40%		BBB-	Baa3
10	0.40%	0.45%	0.50%			
11	0.50%	0.55%	0.60%			
12	0.60%	0.90%	1.20%	Satisfactory	BB+/BB	Ba1/Ba2
13	1.20%	1.38%	1.55%			
14	1.55%	1.85%	2.15%		BB-	Ba3
15	2.15%	2.60%	3.05%		B+	B1
16	3.05%	3.75%	4.45%			
17	4.45%	5.40%	6.35%		B	B2
18	6.35%	7.50%	8.65%			
19	8.65%	10.00%	11.35%		B-	B3
20	11.35%	15.00%	18.65%		Higher risk	CCC+
21	18.65%	30.00%	100.00%	CCC/CCC-/CC		Caa1/Caa3/Ca

Table 28: IRB wholesale obligor grade disclosure

The following tables show credit risk and counterparty credit risk exposure at default post-CRM for the advanced IRB approach and foundation IRB approach for wholesale portfolios within both the trading and banking books (the totals will therefore not reconcile to table 14 which only includes credit risk exposures). Separate tables are provided for the following credit exposure classes, central governments and central banks (28a), institutions (28 b), and corporates (28c).

Tables in the Appendix on page 151 show credit risk data separately and in greater granularity. Counterparty credit risk data is shown on pages 65 to 72.

Table 28a: Central governments & central banks

Obligor grade	Central governments & central banks						
	Advanced IRB				Foundation IRB		
	EAD post-CRM £m	Exposure-weighted average LGD %	Exposure-weighted average risk weight %	Undrawn commitments %	Average exposure value £m	EAD post-CRM £m	Exposure-weighted average risk weight %
As at 31.12.13							
Default Grade 1-3	107,510	45.0	7.6	2,187	123,220	51	10.7
Default Grade 4-5	2,215	45.6	48.9	6	3,724	–	–
Default Grade 6-8	1,712	31.9	22.0	4	1,283	190	43.9
Default Grade 9-11	638	47.2	61.6	4	676	–	–
Default Grade 12-14	103	48.6	97.7	–	99	–	–
Default Grade 15-19	4	71.2	249.6	–	37	8	145.0
Default Grade 20-21	11	74.7	405.2	–	5	–	–
In default	–	–	–	–	–	–	–
Total	112,193	44.9	9.1	2,201	129,044	249	40.8
As at 31.12.12							
Default Grade 1-3	131,586	44.9	4.5	1,740	156,544	38	4.9
Default Grade 4-5	6,148	39.9	35.3	72	4,514	99	35.8
Default Grade 6-8	573	44.8	37.2	–	308	118	43.9
Default Grade 9-11	323	49.1	74.1	–	440	–	–
Default Grade 12-14	33	44.7	97.5	–	174	10	105.7
Default Grade 15-19	68	54.0	218.7	–	32	1	144.8
Default Grade 20-21	–	–	–	–	2	–	–
In default	–	–	–	–	–	–	–
Total	138,731	44.7	6.3	1,812	162,014	266	38.0

The overall average risk weight associated with advanced IRB exposure to central governments and central banks increased from 6.3% to 9.1%, driven by:

- An increase in the risk weight for default grades 1 to 3 (from 4.5% to 7.6%). Within this default grade band, the proportion of debt instruments held for liquidity purposes increased relative to deposits with central banks. Debt instruments attract higher risk weights than cash deposits, which drove the overall average risk weight increase.

Table 69 on page 152 provides a breakdown of credit risk data for the banking book.

Table 28b: Institutions

Obligor grade	Institutions						
	Advanced IRB				Foundation IRB		
	EAD post-CRM £m	Exposure-weighted average LGD %	Exposure-weighted average risk weight %	Undrawn commitments %	Average exposure value £m	EAD post-CRM £m	Exposure-weighted average risk weight %
As at 31.12.13							
Default Grade 1-3	42,221	37.6	11.3	1,803	41,022	668	13.4
Default Grade 4-5	4,163	41.6	26.5	130	5,790	449	32.3
Default Grade 6-8	957	34.5	27.1	77	1,212	279	43.0
Default Grade 9-11	544	44.2	66.4	49	533	38	72.0
Default Grade 12-14	184	46.5	51.5	8	258	5	103.7
Default Grade 15-19	47	45.8	155.6	1	66	7	132.0
Default Grade 20-21	–	–	–	–	4	–	–
In default	51	20.9	175.1	–	89	–	–
Total	48,167	38.0	14.0	2,068	48,974	1,446	27.5
As at 31.12.12							
Default Grade 1-3	35,547	41.4	13.2	1,232	38,945	606	14.0
Default Grade 4-5	3,825	46.3	26.8	270	4,031	1,031	29.4
Default Grade 6-8	977	31.2	31.6	42	1,399	64	45.6
Default Grade 9-11	453	44.9	56.5	64	496	17	66.7
Default Grade 12-14	206	55.6	121.4	8	46	1	90.2
Default Grade 15-19	84	47.3	192.3	1	71	3	137.2
Default Grade 20-21	8	40.6	198.3	6	23	–	–
In default	116	59.2	168.4	–	87	–	–
Total	41,216	41.8	16.8	1,623	45,098	1,722	25.2

The overall risk weight associated with **advanced IRB** exposures to financial institutions decreased from 16.8% to 14.0%, driven by:

- Default grades 1 to 3, owing to a reclassification of local authority counterparties from corporate to institutions. Typically this type of counterparty has a low risk of default, causing an overall decrease in average risk weight.

The risk weight for **foundation IRB** exposures to financial institutions increased from 25.2% to 27.5%, driven by:

- Reduced lending within our African subsidiary to other institutions within default grade 4 to 5.

Table 70 on page 153 provides a breakdown of credit risk data for the banking book.

Table 28c: Corporates

Obligor grade	Corporates						
	Advanced IRB			Foundation IRB			
	EAD post-CRM £m	Exposure-weighted average LGD %	Exposure-weighted average risk weight %	Undrawn commitments %	Average exposure value £m	EAD post-CRM £m	Exposure-weighted average risk weight %
As at 31.12.13							
Default Grade 1-3	60,364	37.8	13.4	36,852	62,093	1,084	14.2
Default Grade 4-5	39,871	35.4	26.1	30,338	43,304	1,724	25.8
Default Grade 6-8	15,780	34.2	43.9	10,135	20,272	3,985	49.7
Default Grade 9-11	14,548	37.7	62.1	6,755	17,440	2,426	62.2
Default Grade 12-14	17,736	34.7	75.3	7,809	24,593	3,682	133.9
Default Grade 15-19	12,609	30.9	103.9	4,135	16,525	1,754	117.1
Default Grade 20-21	865	29.1	138.2	155	1,519	84	318.1
In default	1,437	31.6	150.3	99	2,441	380	283.1
Total	163,210	35.9	39.4	96,278	188,187	15,119	82.1
As at 31.12.12							
Default Grade 1-3	59,297	33.4	11.2	31,117	60,417	1,310	17.1
Default Grade 4-5	41,549	32.9	24.6	27,086	44,523	2,499	29.8
Default Grade 6-8	16,659	36.5	40.7	12,397	21,885	3,110	46.2
Default Grade 9-11	14,630	42.4	61.7	7,024	16,892	2,669	64.6
Default Grade 12-14	21,717	37.0	80.4	9,597	22,611	4,666	90.6
Default Grade 15-19	15,201	32.2	107.8	4,634	16,056	2,201	123.3
Default Grade 20-21	1,812	34.5	180.5	433	2,350	203	205.6
In default	2,309	44.7	132.4	256	3,132	544	170.6
Total	173,174	34.8	42.1	92,544	187,866	17,202	72.2

The overall risk weight associated with **advanced IRB** exposures to corporates decreased from 42.1% to 39.4%, driven by:

- Decreased average risk weights across default grades owing to improved book quality within the Investment Bank and Corporate Banking, coupled with the application of the slotting approach to exposures with a value greater than £1m. These exposures are analysed separately in table 28d and generally carry a higher than average risk weight.

Offset by:

- Default grades 1 to 3, owing to a reclassification of local authority counterparties from institutions to corporates. Typically this type of counterparty has a low risk of default.

The overall risk weight associated with **foundation IRB** exposures to corporates increased from 72.2% to 82.1%, driven by revised probability of default for certain counterparties owing to macroeconomic conditions in Africa.

Table 28c excludes exposures subject to the slotting approach, which are analysed separately in table 28d.

Table 71 on page 154 provides a granular breakdown of credit risk data for the banking book.

Table 28d: 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 to be used in 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 BIPRU 4.5.

Obligor grade	Remaining maturity <2.5 years		Remaining maturity >2.5 years	
	EAD post-CRM £m	Risk weighted assets £m	EAD post-CRM £m	Risk weighted assets £m
As at 31.12.13				
Strong	2,246	1,123	3,707	1,854
Good	2,128	1,490	1,431	1,016
Satisfactory	1,174	1,350	718	826
Weak	346	866	463	1,158
Default ^a	708	–	147	–
Total	6,602	4,829	6,466	4,854
As at 31.12.12				
Strong	1,042	521	2,307	1,153
Good	1,079	756	941	658
Satisfactory	1,534	1,764	763	877
Weak	550	1,374	116	289
Default ^a	465	–	506	–
Total	4,670	4,415	4,633	2,977

Exposures subject to the slotting approach increased RWAs by £2.3bn, driven by the implementation of the slotting approach to exposures with a value greater than £1m, partially offset by disposals within the Investment Bank and Corporate Banking.

Note

a Exposures in default do not generate risk weighted assets as they are already reflected in deductions to capital resources.

Table 29: IRB retail obligor grade disclosure

This table shows retail exposures subject to IRB calculations, split by default grade and key IRB metrics.

Obligor grade	Retail SME			Retail mortgages			Qualifying revolving retail			Other retail		
	EAD post-CRM £m	Exposure- weighted average	Exposure- weighted average risk	EAD post-CRM £m	Exposure- weighted average	Exposure- weighted average risk	EAD post-CRM £m	Exposure- weighted average	Exposure- weighted average risk	EAD post-CRM £m	Exposure- weighted average	Exposure- weighted average risk
		LGD %	weight %		LGD %	weight %		LGD %	weight %		LGD %	weight %
As at 31.12.13												
Default Grade 1-3	901	30.6	8.4	7,563	19.3	2.6	7,726	77.4	2.4	41	62.2	7.2
Default Grade 4-5	597	29.6	12.2	17,703	22.3	8.6	5,956	79.4	6.6	154	53.1	15.0
Default Grade 6-8	628	35.8	21.0	11,443	18.1	10.9	4,171	81.5	14.2	141	83.9	39.9
Default Grade 9-11	992	39.5	29.6	54,664	10.7	8.5	3,850	80.5	24.7	741	69.9	50.3
Default Grade 12-14	2,517	41.7	48.5	63,987	12.8	16.6	7,462	82.5	55.1	3,051	73.5	85.9
Default Grade 15-19	2,544	42.5	67.3	9,944	17.3	56.0	5,207	86.3	139.0	3,416	64.9	102.5
Default Grade 20-21	473	44.3	113.0	2,610	19.3	110.9	646	88.8	340.8	573	67.7	148.8
In default	584	23.0	305.4	4,443	19.5	106.1	1,671	62.4	60.9	920	80.3	77.0
Total	9,236	38.4	63.1	172,357	14.3	18.2	36,689	80.3	45.5	9,037	70.0	90.0
As at 31.12.12												
Default Grade 1-3	602	31.9	7.6	7,334	17.1	2.2	6,574	78.8	2.2	49	61.8	7.1
Default Grade 4-5	673	26.9	10.7	16,485	23.5	7.5	5,667	78.9	5.6	158	50.7	14.2
Default Grade 6-8	697	34.5	20.6	11,956	18.2	9.7	4,130	81.2	11.9	118	83.4	39.8
Default Grade 9-11	1,084	38.9	30.2	53,405	10.7	8.5	3,943	81.3	20.9	776	68.3	49.3
Default Grade 12-14	2,674	44.2	49.9	65,038	12.7	16.4	7,319	83.2	46.1	3,309	73.9	86.2
Default Grade 15-19	2,580	46.2	73.3	10,949	16.3	56.2	5,234	86.1	117.9	3,540	61.7	99.0
Default Grade 20-21	496	48.0	118.3	2,768	19.6	105.2	647	88.5	284.3	670	66.0	146.2
In default	691	25.2	298.6	3,275	21.8	77.8	1,819	62.7	52.5	1,054	79.2	60.3
Total	9,497	40.2	68.1	171,210	14.2	17.2	35,333	80.7	39.9	9,674	68.7	87.1

Retail SME

The risk weight associated with retail SME exposures decreased from 68.1% to 63.1%, primarily driven by:

- A decrease in balances in default, and lower risk weights for default grades 9 to 21. A number of loans in the UK previously in default are now performing, contributing to both a decrease of in default balances and an improvement in risk weights for default grades 20 to 21. Other movements in risk weights are due to overall improving credit performance.

Retail mortgages

The risk weight associated with retail mortgages increased from 17.2% to 18.2%, primarily driven by:

- Exposures in default increased, due to the inclusion of balances associated with accounts in forbearance. The risk weight of such exposures is higher than for other defaulted accounts as less provision has been set aside and consequently, associated capital requirements are higher.

Qualifying revolving retail

The risk weight associated with qualifying revolving retail exposures, mainly comprising credit cards and overdrafts, increased from 39.9% to 45.5%. This was primarily driven by:

- Increases in default grades 12 to 19, were driven by model updates in Barclaycard in order to meet changes in regulatory guidance.

Other retail exposures

The risk weight associated with other retail exposures, primarily comprising of unsecured personal loans, increased from 87.1% to 90.0%. This was primarily driven by:

- Higher risk weights in default grades 15 to 21 and the in default grade, due to lower underlying loan performance.

Tables 72 to 75 on pages 155 to 158 provide a granular breakdown of credit risk data for the banking book.

IFRS Impairment

The following tables are presented using the IFRS consolidation rather than the regulatory consolidation basis. See pages 396 to 398 of the Annual Report for background on impairment pages 12 to 16 explaining the scope of regulatory consolidation.

This table shows total loans and advances to customers and banks, past due balances and impaired loan balances, split by exposure type.

Table 30: Analysis of impaired and past due exposures and allowance for impairment by exposure type

	Neither past due nor impaired £m	Past due but not impaired £m	Impaired loans		Total £m	Allowance for impairment £m
			Individually £m	Collectively £m		
As at 31.12.13						
Traded loans	1,647	–	–	–	1,647	–
Financial assets designated at fair value	18,348	347	–	–	18,695	–
Loans and advances to banks	36,914	931	18	–	37,863	10
Home loans	168,505	187	510	11,100	180,302	788
Credit card receivables	29,539	2	239	3,342	33,122	1,529
Other personal lending	30,596	305	1,194	2,930	35,025	2,065
Wholesale and corporate loans and advances	173,278	4,649	3,874	1,581	183,382	2,857
Finance lease receivables	5,444	14	115	255	5,828	9
Total	464,271	6,435	5,950	19,208	495,864	7,258
As at 31.12.12						
Traded loans	2,410	–	–	–	2,410	–
Financial assets designated at fair value	21,604	392	–	–	21,996	–
Loans and advances to banks	39,591	848	64	–	40,503	41
Home loans	164,333	279	783	10,448	175,843	855
Credit card receivables	28,522	–	644	2,768	31,934	1,648
Other personal lending	27,220	170	843	3,191	31,424	2,047
Wholesale and corporate loans and advances	175,300	5,006	3,946	1,375	185,627	3,123
Finance lease receivables	6,410	18	130	278	6,836	85
Total	465,390	6,713	6,410	18,060	496,573	7,799

Impaired and past due exposures have decreased 0.1% to £495.9bn, primarily driven by:

- Financial assets designated at fair value have decreased by 15.0% to £18.7bn primarily driven by a 11% decrease in underlying exposures to the Education, Social Housing and Local Authority (ESHLA) portfolio.
- Loans and advances to banks have decreased by 6.5% to £37.8bn, primarily within 'neither past due nor impaired', driven by a net reduction in cash collateral balances.
- Home loans have increased 2.5% to £180.3bn, driven mainly by increased mortgage lending and the acquisition of Barclays Direct, partly offset by reductions in Africa RBB, driven by the appreciation of GBP against ZAR.

This table shows past due and impaired loans and advances to customers and banks, split by geographic location of the counterparty.

Table 31: Geographic analysis of impaired and past due exposures and allowance for impairment

	Past due but not impaired £m	Impaired Loans		Allowance for impairment £m
		Individually £m	Collectively £m	
As at 31.12.13				
UK	2,030	1,554	12,130	2,980
Europe	1,213	2,989	3,466	2,486
Americas	2,634	227	353	654
Africa and Middle East	280	1,087	3,257	1,079
Asia	278	93	2	59
Total	6,435	5,950	19,208	7,258
As at 31.12.12				
UK	2,148	1,622	11,722	3,270
Europe	1,627	3,069	3,037	2,606
Americas	2,658	246	372	472
Africa and Middle East	194	1,384	2,926	1,381
Asia	86	89	3	70
Total	6,713	6,410	18,060	7,799

Collectively impaired loans

- UK increased 3.5% to £12.1bn, primarily driven by growth in home loans and the acquisition of Barclays Direct.
- Europe increased 14.1% to £3.5bn, primarily in Spain.
- Africa and Middle East increased 11.3% to £3.3bn, primarily in the credit card portfolio, largely reflecting a change in product mix following the acquisition of the Edcon portfolio in late 2012, offset by the appreciation of GBP against ZAR.

Individually impaired loans

Africa and the Middle East decreased 21.5% to £1.1bn, largely due to the appreciation of GBP against ZAR.

For details surrounding movements in the impairment allowance please see page 60.

Table 32: Analysis of movement on impairment and amounts taken directly to profit and loss

This table shows the movement in the impairment allowance between 2012 and 2013 year-end. Please refer to pages 151 to 156 and 396 to 398 in the 2013 Annual Report for further information on impairment.

Impairment movement	Allowance for impairment	
	Year ended 31.12.13	Year ended 31.12.12
	£m	£m
Starting period	7,799	8,896
Acquisitions and disposals	(5)	(80)
Exchange and other adjustments	(260)	(206)
Unwind of discount	(179)	(211)
Amounts written off	(3,343)	(4,119)
Recoveries	201	212
Amounts charged against profit (see below)	3,045	3,307
Ending period	7,258	7,799

Amounts charged against profit	P&L impact	
	£m	£m
	New and increased impairment allowances	3,929
Releases	(683)	(928)
Recoveries	(201)	(212)
Total impairment on loans and advances	3,045	3,307

Impairment charges decreased 8.6% to £3.0bn, principally reflecting lower impairments in Corporate Banking and Africa RBB. This was partially offset by higher impairments in Barclaycard and UK RBB, partly due to provision releases in 2012, and acquisitions in Barclaycard.

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 12. These include, but are not exclusive to, impairments relating to securitisation vehicles and associates.
- Other value adjustments- primarily to correct asymmetry, where exposures attract an expected loss for regulatory purposes, but do not generate an impairment allowance as they are mark to market for IFRS (for example- fair value loans)
- Securitisation positions- expected loss is not calculated for securitisation positions. As such, impairments associated with these positions are removed from the regulatory view.

Table 33: Regulatory adjustments to statutory impairment

As at 31.12.13	£m
IFRS allowance for impairment	7,258
Regulatory adjustments	
Scope of consolidation	437
Other value adjustments	541
Securitisation positions	(186)
AFS impairments	173
Other regulatory adjustments	62
Regulatory impairment allowance	8,285

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Analysis of credit risk continued

The tables within this section are based on the regulatory consolidation.

Table 34: Analysis of regulatory impairment allowance by regulatory exposure class

Regulatory impairment allowance	Individual impairment £m	Collective impairment £m	Other value adjustments £m	As at 31.12.13 Total £m	As at 31.12.12 Total £m
Credit exposure class					
Standardised approach					
Central governments or central banks	–	–	–	–	–
Regional governments or local authorities	–	–	–	–	1
Administrative bodies and non-commercial undertakings	–	–	–	–	7
Institutions	9	–	–	9	10
Corporates	493	140	24	657	936
Retail	86	406	–	492	571
Secured by mortgages on residential property	12	5	–	17	40
Secured by mortgages on commercial real estate	44	13	40	97	491
Past due items	1,548	1,303	49	2,900	2,566
Private equity positions	150	–	–	150	190
Covered bonds	–	–	–	–	–
Securitisation positions	–	–	–	–	–
Collective investment undertakings	–	–	–	–	–
Other items	29	7	–	36	31
Total standardised approach credit exposure	2,371	1,874	113	4,358	4,843
Foundation IRB approach					
Central governments or central banks	–	–	–	–	–
Institutions	–	–	–	–	–
Corporates	145	30	–	175	242
Total foundation IRB approach credit exposure	145	30	–	175	242
Advanced IRB approach					
Central governments or central banks	–	–	–	–	3
Institutions	6	–	4	10	43
Corporates	399	209	424	1,032	1,599
Retail					
– Small and medium enterprises (SME)	11	2	–	13	49
– Secured by real estate collateral	108	597	–	705	793
– Qualifying revolving retail	–	989	–	989	1,038
– Other retail	–	1,001	–	1,001	1,067
Equity	2	–	–	2	4
Securitisation positions	–	–	–	–	–
Non-credit obligation assets	–	–	–	–	–
Total advanced IRB approach credit exposure	526	2,798	428	3,752	4,596
Total credit exposures	3,042	4,702	541	8,285	9,681

Impairment allowance under the **standardised approach** decreased by 10.0% to £4.4bn. This was driven by:

- Corporate exposures decreased 29.8% to £0.7bn, driven by impairment releases within Corporate Banking, primarily within the Spanish corporate portfolio.
- Secured by mortgages on commercial real estate decreased 80.2% to £0.1bn, driven by the disposal of positions within the Investment Bank.
- Past due exposures increased 13.0% to £2.9bn, driven by a charge against a single name exposure, coupled with the reclassification of exposures relating to forbearance.

Impairment allowance under **advanced IRB** decreased by 18.3% to £3.8bn. This was driven by:

- Corporate exposures decreasing 35.4% to £1.0bn, driven by disposals within Corporate Banking and the Investment Bank.

Table 35: Impairment charges, other value adjustments and individual impairment charges for IRB exposures

This table represents a regulatory view of individual impairment charged directly against profits during the period, for portfolios that are subject to IRB calculations and individually assessed. The impact of other value adjustments are provided on the same basis. These charges are included within the net trading income and net investment income within the financial statements.

The total impairment charged against profits will not reconcile directly to Table 32 owing to differences in regulatory scope, as highlighted in table 1. Furthermore, Table 35 does not analyse portfolios subject to standardised calculations or IRB portfolios that are assessed collectively.

IRB exposure class	As at 31.12.13 Total £m	As at 31.12.12 Total £m
Central governments or central banks	–	1
Institutions	–	6
Corporates	224	603
Retail		
– Retail SME	5	78
– Retail exposures secured by real estate collateral	55	43
– Qualifying revolving retail	–	–
– Other retail	–	–
Equity	–	3
Securitisation positions	–	–
Non-credit obligation assets	–	–
Total	284	734

Individual impairment charges for portfolios subject to IRB calculations decreased by £0.4bn, owing to a decrease in impairment charges for corporate exposures. This was driven by reduced charges within the Investment Bank and Corporate Banking, coupled with reductions in Africa RBB owing to the appreciation of GBP against ZAR and fewer charges within commercial property portfolios.

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

The following table compares Barclays expected loss (EL) measure against the regulatory view of actual loss for those portfolios where credit risk is calculated using the IRB approach.

As expected loss best estimate (ELBE) represents a charge for assets already in default, it has been separated from total EL and disclosed separately. This facilitates comparison of actual loss during the period to the expectation of future loss or EL, as derived by our IRB 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.

It should be noted that Barclays' EL models and regulatory estimations present a conservative view compared to actual loss.

Regulatory expected loss (EL)

EL is an input to the capital adequacy process which can be seen as an expectation of average future loss derived from IRB models over a one year period as follows:

- Non-defaulted assets: EL is calculated using probability of default and downturn loss given default estimates.
- Defaulted assets: EL is based upon an estimate of likely recovery levels for each asset.

Actual loss

Actual loss represents a regulatory view of the amount charged against profit.

Table 36: Analysis of expected loss versus actual losses for IRB exposures

IRB exposure class	EL £m	ELBE £m	Total expected loss at 31.12.12 £m	Total actual loss at 31.12.13 £m
Central governments or central banks	8	–	8	–
Institutions	6	34	40	–
Corporates	689	1,176	1,865	242
Retail				
– SME	144	132	276	114
– Secured by real estate collateral	451	718	1,169	266
– Qualifying revolving retail	672	1,068	1,740	712
– Other retail	264	775	1,039	166
Equity	1	–	1	–
Securitisation positions	n/a	n/a	n/a	n/a
Non-credit obligation assets	n/a	n/a	n/a	n/a
Total IRB	2,235	3,903	6,138	1,500

	EL £m	ELBE £m	Total expected loss at 31.12.11 £m	Total actual loss at 31.12.12 £m
Central governments or central banks	3	–	3	1
Institutions	6	33	39	6
Corporates	598	1,313	1,911	444
Retail				
– SME	197	214	411	151
– Secured by real estate collateral	412	683	1,095	471
– Qualifying revolving retail	708	1,171	1,879	546
– Other retail	283	956	1,239	196
Equity	1	–	1	3
Securitisation positions	n/a	n/a	n/a	n/a
Non-credit obligation assets	n/a	n/a	n/a	n/a
Total IRB	2,208	4,370	6,578	1,818

Actual loss decreased by £0.3bn driven by reduced charges against corporates and retail exposures:

- Reductions in corporate exposures were driven by the Investment Bank and Corporate Banking, coupled with reductions in Africa RBB owing to the appreciation of GBP against ZAR and fewer charges within commercial property portfolios.
- Reductions in retail exposures were driven primarily by Africa RBB owing to lower provisions within the South African home loans recovery book and the appreciation of GBP against ZAR, offset by Barclaycard owing to the non-recurrence of provision releases in 2012.

Expected loss decreased across all classifications during 2012, with the exception of corporates. This reflected underlying improvements in PDs and LGDs, offset by the impact of slotting for corporates (the slotting approach was implemented as at December 2012 only – and is not factored into 2011 comparatives).

Non-traded equity investments

The adopted regulatory definition of equity is consistent with the IFRS definition used within the Annual Report. For non-trading book equity positions, the Group calculates credit risk RWAs using both standardised and advanced calculations. However, the advanced IRB approach is only available where regulatory approval has been given.

Table 37: Risk weighted exposures of equity investments

This table shows RWAs for non-trading book equity positions subject to IRB calculations using the simple risk weight approach to calculate credit risk.

Risk weighted exposure for non trading book positions using the simple approach		
Equity category	As at 31.12.13 Total £m	As at 31.12.12 Total £m
Exchange traded exposures	–	–
Private equity	–	–
Other exposures	307	188
Total risk weighted exposure amount for equities	307	188

Table 38: Fair value of, and 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. Equity positions deducted from capital are excluded from this population.

Non trading book equity positions		
Fair value	As at 31.12.13 Total £m	As at 31.12.12 Total £m
Exchange traded	564	755
Private equity	902	748
Other	14	51
Total	1,480	1,554
Realised gains/(losses) from sale and liquidations of equity investments	78	(130)
Unrealised gains	153	110
Amount included in Tier 1 or 2 Capital	153	110

Non-trading book fair value equity balances remained broadly flat at £1.5bn.

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 business segment, financial contract type, approach and notional value.

- Risk weighted assets decreased 7.5% to £27.9bn, driven by reduced trading volumes in the FX and commodity derivative businesses.
- Exposure at default decreased 9.7% to £78.6bn driven by reduced trading volumes in the FX and commodity derivative businesses.
- Counterparty credit risk RWAs are primarily generated by the following IFRS account classifications- Derivative financial instruments and reverse repurchase agreements and other similar secured lending.

Risk weighted assets for counterparty risk reduced in the year

Total RWA

-£2.2bn

Driven by reduced trading volumes and FX movements, offset by methodology changes.

-£2.1bn

Driven by reduced trading volumes in the FX and commodity businesses.

-£0.3bn

Due to foreign exchange movements.

+£0.6bn

Owing to model updates and methodology changes, driven by a pension fund LGD floor.

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Analysis of counterparty credit risk

Counterparty risk exposures

The following tables analyse counterparty credit risk exposures and risk weighted assets.

Table 39: Exposure at default associated with counterparty credit risk by business

This table summarises EAD post-credit risk mitigation by business and exposure class for counterparty credit risk.

Post-CRM EAD						
As at 31.12.13	Europe RBB £m	Africa RBB £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Total £m
Counterparty credit risk exposure class						
Standardised approach						
Central governments or central banks	–	–	59	–	–	59
Regional governments or local authorities	–	–	56	–	–	56
Multilateral development banks	–	–	–	–	–	–
International organisations	–	–	39	–	–	39
Institutions	5	1	633	1	–	640
Corporates	–	2	4,902	–	–	4,904
Retail	–	–	–	–	460	460
Total standardised approach credit risk exposure	5	3	5,689	1	460	6,158
Foundation IRB approach						
Central governments or central banks	–	–	2	–	–	2
Institutions	–	–	855	–	–	855
Corporates	–	–	471	–	–	471
Total foundation approach credit risk exposure	–	–	1,328	–	–	1,328
Advanced IRB approach						
Central governments or central banks	–	–	10,538	–	–	10,538
Institutions	–	–	14,823	–	–	14,823
Corporates	–	–	43,647	1,034	–	44,681
Securitisation positions	–	–	1,102	–	–	1,102
Total advanced IRB credit risk exposure	–	–	70,110	1,034	–	71,144
Total counterparty credit risk	5	3	77,127	1,035	460	78,630

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Analysis of counterparty credit risk continued

Table 39 (Continued)

Post-CRM EAD						
As at 31.12.12	Europe RBB £m	Africa RBB £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Total £m
Counterparty credit risk exposure class						
Standardised approach						
Central governments or central banks	–	–	264	–	–	264
Regional governments or local authorities	–	–	61	–	–	61
Multilateral development banks	–	–	–	–	–	–
International organisations	–	–	108	–	–	108
Institutions	4	1	668	–	–	673
Corporates	2	7	6,196	–	–	6,205
Retail	–	–	–	–	394	394
Total standardised approach credit risk exposure	6	8	7,297	–	394	7,705
Foundation IRB approach						
Central governments or central banks	–	–	4	–	–	4
Institutions	–	–	467	–	–	467
Corporates	–	–	416	–	–	416
Total foundation approach credit risk exposure	–	–	887	–	–	887
Advanced IRB approach						
Central governments or central banks	–	–	12,386	–	–	12,386
Institutions	–	–	18,605	–	–	18,605
Corporates	–	–	44,455	934	–	45,389
Securitisation positions	–	–	2,144	–	–	2,144
Total advanced IRB credit risk exposure	–	–	77,590	934	–	78,524
Total counterparty credit risk	6	8	85,774	934	394	87,116

Counterparty credit risk exposure post-CRM decreased by 9.7% to £78.6bn, primarily due to:

- Reductions of 21.0% to £4.9bn in **standardised approach** corporates exposure driven by a number of OTC derivative trades maturing during the year.
- Reductions in **advanced IRB** central governments by 14.9% to £10.5bn for central banks exposures and 20.3% to £14.8bn for institutions, primarily driven by reduced exposure to foreign exchange and commodity derivatives within the Investment Bank.

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Analysis of counterparty credit risk continued

Table 40: Risk weighted assets of counterparty credit risk exposures by business units

This table summarises risk weighted assets by business and exposure class for counterparty credit risk.

Risk weighted assets						
As at 31.12.13	Europe RBB £m	Africa RBB £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Total £m
Counterparty credit risk						
Standardised approach						
Central governments or central banks	–	–	61	–	–	61
Regional governments or local authorities	–	–	58	–	–	58
Multilateral development banks	–	–	–	–	–	–
International organisations	–	–	–	–	–	–
Institutions	4	1	332	2	–	339
Corporates	–	2	5,017	–	–	5,019
Retail	–	–	–	–	230	230
Total standardised approach	4	3	5,468	2	230	5,707
Foundation IRB approach						
Central governments or central banks	–	–	1	–	–	1
Institutions	–	–	205	–	–	205
Corporates	–	–	269	–	–	269
Total foundation approach	–	–	475	–	–	475
Advanced IRB approach						
Central governments or central banks	–	–	1,894	–	–	1,894
Institutions	–	–	2,879	–	–	2,879
Corporates	–	–	15,883	649	–	16,532
Securitisation positions	–	–	368	–	–	368
Total advanced IRB	–	–	21,024	649	–	21,673
Total counterparty credit risk	4	3	26,967	651	230	27,855

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Analysis of counterparty credit risk continued

Table 40 (Continued)

Risk weighted assets

As at 31.12.12	Europe RBB £m	Africa RBB £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Total £m
Counterparty credit risk exposure class						
Standardised approach						
Central governments or central banks	–	–	214	–	–	214
Regional governments or local authorities	–	–	61	–	–	61
Multilateral development banks	–	–	–	–	–	–
International organisations	–	–	–	–	–	–
Institutions	1	1	328	–	–	330
Corporates	2	7	6,267	–	–	6,276
Retail	–	–	–	–	199	199
Total standardised approach credit risk exposure	3	8	6,870	–	199	7,080
Foundation IRB approach						
Central governments or central banks	–	–	1	–	–	1
Institutions	–	–	113	–	–	113
Corporates	–	–	256	–	–	256
Total foundation approach credit risk exposure	–	–	370	–	–	370
Advanced IRB approach						
Central governments or central banks	–	–	1,698	–	–	1,698
Institutions	–	–	3,721	–	–	3,721
Corporates	–	–	15,750	500	–	16,250
Securitisation positions	–	–	981	–	–	981
Total advanced IRB credit risk exposure	–	–	22,150	500	–	22,650
Total counterparty credit risk	3	8	29,390	500	199	30,100

Counterparty credit risk weighted assets decreased by 7.5% to £27.9bn, primarily due to:

- Reductions in **standardised approach** by 20.0% to £5.0bn in corporates category driven by a number of 100% risk weighted OTC derivative trades maturing during the year.
- **Advanced IRB** institutions category decreased by 22.6% to £2.9bn and securitisation positions category decreased by 62.5% to £0.4bn, driven primarily by repayment of collateral particularly in the foreign exchange and commodity derivatives businesses and a reduction in business risk within the Investment Bank during the year.

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Analysis of counterparty credit risk continued

Table 41: Counterparty credit exposures analysed by financial contract type

This table shows the Group's counterparty credit risk exposure at default post-CRM analysed by the type of financial contract. The nature of the calculation of credit exposure under the internal model method (IMM) precludes the identification of individual product exposures. As such, the split per financial contract type for IMM is not shown in the table below.

Financial contract type	EAD post-CRM under internal model method £m	EAD post-CRM under other approaches £m	EAD post-CRM under mark to market approach £m
As at 31.12.13			
Interest rate contracts		–	409
Foreign currency contracts		–	363
Gold contracts		–	–
Equities contracts		–	468
Precious metal other than gold contracts		–	–
Commodities other than precious metal contracts		–	625
Securities financing transactions		4,283	–
Credit derivatives		–	326
Other		3,296	821
Total	68,040	7,579	3,012
As at 31.12.12			
Interest rate contracts		–	627
Foreign currency contracts		–	573
Gold contracts		–	–
Equities contracts		–	210
Precious metal other than gold contracts		–	3
Commodities other than precious metal contracts		–	364
Securities financing transactions		3,427	–
Credit derivatives		–	133
Other		3,503	581
Total	77,947	6,930	2,491

Net derivative credit exposure under the IMM reduced by 12.7% to £68.0bn. This total amount is a portfolio-level statistical calculation and the movement is primarily driven as follows:

- Derivatives: reduction largely due to the net collateral paid by the counterparties for collateralised trades, reduction of market values across foreign exchange and interest rate products and a decrease in CDS among uncollateralised trades.
- Securities financing transactions: the exposure remained flat throughout the year.

Net derivative credit exposure under the MTM method increased by 20.9% to £3.0bn. This is principally reflected in the following categories:

- Commodities other than precious metal contracts: the increase within the Investment Bank was driven by movements spread across numerous counterparties.
- Credit derivatives: the movement is primarily driven by increase in protection provided for repurchase agreement exposures.
- Other: the increase is driven by mark-to-market movements.

Net derivatives credit exposures under other approaches increased by 9.4% to £7.6bn driven by increase in securities financing transactions.

Risk and capital position review >

Analysis of counterparty credit risk continued

Table 42: Counterparty credit exposure by approach

This table shows counterparty credit risk trading book exposures for derivative exposures. The population does not include CCR relating to securities financing or other categories.

Exposures reported under mark to market (MTM) method refer to credit exposures arising from over the counter (OTC) derivatives that are not measured using a modelled approach. Such exposures are subject to appropriate netting and collateral offsets and require adjustment for market driven movements that may lead to increased replacement cost at the time of default (potential future credit exposure).

Internal model method (IMM) is the most risk sensitive approach available for the calculation of CCR exposures. Please note that as the IMM method considers the coefficients of different factors such as collateral and market movements within a statistical simulation across a range of asset classes, the output cannot be split across the categories shown in the columns below.

Outstanding amount of exposure held:

	Gross positive fair value of contracts £m	Potential future credit exposure £m	Netting benefits £m	Net current credit exposure £m	Collateral held £m	Net derivatives credit exposure £m
As at 31.12.13						
Mark to market method	3,858	3,088	(3,629)	3,317	305	3,012
Internal model method						45,344
As at 31.12.12						
Mark to market method	4,707	3,217	(5,300)	2,624	133	2,491
Internal model method						54,762

MTM method net derivative credit exposure increased 20.9% to £3.0bn principally driven by:

- Gross positive fair value of contracts: decrease largely driven by risk reduction against a number of counterparties, primarily institutions, coupled with foreign exchange movements.
- Potential future value of credit exposure: decrease driven by foreign exchange movements.

The IMM derivative credit exposure decreased by 17.2% to £45.3bn largely due to a business risk reduction, foreign exchange contracts and commodities.

Credit derivative notionals

The counterparty credit risk exposures included in tables 41 and 42 include credit derivative contracts that combine counterparty credit risk exposure to both the party entering into the credit derivative contract with Barclays, as well as the entity used as the reference point within the contract itself. The following tables show the notional of the credit derivative transactions outstanding as at 31 December 2013.

Table 43: Notional exposure associated with credit derivative contracts

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

Own credit portfolio consist of trades used for hedging and credit management. Intermediation activities are all other credit derivatives and include trades cleared by other subsidiaries on behalf of BBPLC.

Note, credit derivatives booked arising from clearing activities performed, for example within Barclays subsidiaries, 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.

Outstanding amount of exposure held:

	Own credit portfolio		Intermediation activities	
	As protection purchaser £m	As protection seller £m	As protection purchaser £m	As protection seller £m
Credit derivative product type as at 31.12.13				
Credit default swaps	6,132	2,575	774,248	764,599
Total return swaps	–	–	14,172	–
Total	6,132	2,575	788,420	764,599
Credit derivative product type as at 31.12.12				
Credit default swaps	18,250	4,978	857,691	856,198
Total return swaps	87	–	14,766	–
Total	18,337	4,978	872,457	856,198

- **Own credit portfolio:** which mainly comprises derivatives used to manage the banking book, reduced 62.7% to £8.7bn, reflecting a 66.6% reduction to £6.1bn as protection purchaser of both credit default swaps and total return swaps and a 48.3% reduction to £2.6bn as protection seller, principally reflecting balance sheet reductions such as Exit Quadrant assets.
- **Intermediation activities:** which mainly comprises derivatives used to manage the trading book, reduced 10.2% to £1,553bn, reflecting a decrease of 9.6% to £788.4bn in relation to credit default swap protection purchased and a 10.7% decrease to £764.6bn in relation to credit default swap protection sold, driven principally by the closing out of positions and the unwinding of bilateral trades partially offset by additional notional exposures recognised in the year.

Table 44: Notional value of credit derivative contracts held for hedging purposes

Risk methodology

	As at 31.12.13 £m	As at 31.12.12 £m
Notional value of credit derivative hedges for mark to market method	225	376
Notional value of credit derivative hedges under the internal model method	1,732	2,592
Total	1,957	2,968

The notional value of credit derivative hedges has reduced by 34.1% to £2.0bn, largely driven by reduction in internal model method hedges, due to decrease in credit default swap hedges, driven by the maturity and management of hedge ratio.

Analysis of market risk

This section contains key disclosures describing Barclays' market risk profile. It includes both regulatory and management measures. This includes risk weighted assets by major business line, as well as value at risk measures.

- Risk weighted assets decreased 38% to £39bn, driven by reduced trading volumes, reduced exposure to sovereigns and reductions in Exit Quadrant RWAs.
- Measures of market risk, such as value at risk (VaR), generally decreased in the year due to lower levels of activity and improved market conditions. While this was also reflected in lower revenues, the reduction was accompanied by lower market volatility during the year.
- We have sought to distinguish regulatory and management measures of risk (see tables 46 and 48, for instance), and we clarify the extent of risks that are not captured in traditional measures (see, for instance, table 53).
- Market risk RWAs are primarily generated by the following IFRS account classifications: trading portfolio assets and liabilities; derivative financial instruments; and liabilities.

Risk weighted assets for counterparty risk reduced in the year

Total RWAs

-£24.0bn

Driven by risk reductions and reduced sovereign exposure in the trading book and Exit Quadrant RWAs.

-£17.9bn

Driven by reduced sovereign exposure, reduced levels of syndication, a reduction in securitised products and reduced trading volumes with fixed income business.

-£3.6bn

Driven by reductions in Exit Quadrant RWAs.

-£2.1bn

Owing to changes in measurement for RNIVs.

Lower income from reduced activity and a reduction in associated risk measures

-75%

Reduction in days with negative trading revenue overall.

-24%

Reduction in average Management VaR.

-11%

Reduction in average daily revenue.



Market risk is the risk of a reduction to earnings or capital due to volatility of trading book positions or an inability to hedge the banking book balance sheet.

Introduction

This section contains key statistics describing the market risk profile of the bank. It includes both regulatory and management measures. This includes risk weighted assets by major business line, as well as Value at Risk (VaR) measures. Throughout the section, measures on a regulatory and a management basis are shown. The market risk management section on pages 133 to 143 provides full descriptions of these metrics.

The Group has seen a significant decrease in market risk, from lower business activities and disposals (notably Exit Quadrant assets). These movements are reflected in a wide range of risk measures within this section.

- The relationship between the Group's market risk measures and balance sheet is presented on pages 75 and 77.
- Measures of traded market risk, such as value at risk, decreased in the year due to lower levels of client activity and improved market conditions. More details are provided on pages 76 and 78.
- This translated into lower volatility in daily trading revenue in the Investment Bank, although with lower average daily revenue from 2012 levels.
- Market risk RWAs fell from 2012 levels as a result of improving market conditions and general reduction in exposures across the main books.
- The section also covers non-traded market risks that mainly occur as a consequence of banking activities other than trading activities; for instance, interest rate risk that arises in the banking book (IRRBB).
- Annual Earnings at Risk (AEaR) to interest rate shocks, a key measure of IRRBB, reduced in 2013. This reduction was predominately driven by changes in the equity structural hedge durations and a change in the hedge ineffectiveness sensitivity.
- Other market risks, such as pension risk, are disclosed from page 81 onwards.

Balance sheet view of trading and banking books

As defined by the 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 below table provides a group wide overview of where assets on the Group's regulatory balance sheet are managed within regulatory traded and non-traded books. A reconciliation between the IFRS and regulatory balance sheet is provided in table 1.

Table 45: Balance sheet split by trading and banking books (regulatory scope of consolidation)

As at 31 December 2013	Banking book ^a £m	Trading book £m	Total £m
Cash, balances at central banks and items in the course of collection	47,072	–	47,072
Trading portfolio assets	–	132,984	132,984
Financial assets designated a fair value	20,455	16,881	37,336
Derivative financial instruments	–	324,330	324,330
Available for sale investments	89,521	–	89,521
Loans and advances to banks	20,148	17,570	37,718
Loans and advances to customers	357,565	70,627	428,192
Reverse repurchase agreements and other similar secured lending	1,648	185,110	186,758
Other assets	19,878	312	20,190
Total assets	556,287	747,814	1,304,101
Deposits and items in the course of collection due to banks	47,787	9,605	57,392
Customer accounts	376,256	51,674	427,930
Repurchase agreements and other similar secured borrowings	6,511	190,212	196,723
Trading portfolio liabilities	–	53,464	53,464
Financial liabilities designated at fair value	9,471	54,756	64,227
Derivative financial instruments	–	320,634	320,634
Debt securities in issue	69,191	12,654	81,845
Subordinated liabilities	21,695	–	21,695
Other liabilities	15,322	1,046	16,368
Total liabilities	546,233	694,045	1,240,278

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, IRC and APR) see the risk management section on pages 133 to 143.

Traded market risk review

Review of management measures

The following disclosures provide details on management measures of market risk. See pages 136 to 138 for more detail on management measures and the differences when compared to regulatory measures.

The table below shows the total Investment Bank management VaR on a diversified basis by risk factor (see page 136 for risk factor definitions). 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.

The management VaR numbers in the table below include add-ons, to better represent the market risk where the VaR model may not fully represent some risk factors. See page 136 for a description of risks not in VaR (RNIVs).

Average management VaR reduced in 2013 due to a combination of lower client activity and improved market conditions, notably, tightening of credit spreads. Market volatility, which was mainly driven by Eurozone in the previous year, improved in 2013 along with general market sentiment, supported by improving macroeconomic trends in developed markets resulting in the review of quantitative easing programmes.

Note

a 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 a factor where the Group holds debt and equity securities respectively, either as financial assets designated at fair value (see note 14 of the Annual Report) or as available for sale (see note 16 of the Annual Report).

Table 46: The daily average, maximum and minimum values of management VaR

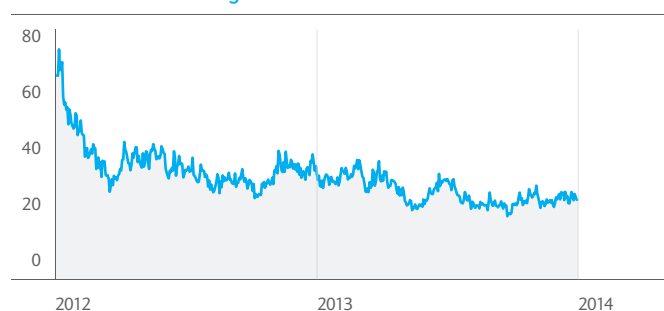
For the year ended 31 December	2013			2012		
	Average £m	High ^a £m	Low ^a £m	Average £m	High ^a £m	Low ^a £m
Management VaR (95%)						
Credit risk	18	25	12	26	44	18
Interest rate risk	13	24	6	14	23	7
Spread risk	11	21	5	23	31	17
Basis risk	11	17	7	11	21	5
Equity risk	11	21	5	9	19	4
Commodity risk	5	8	2	6	9	4
Foreign exchange risk	4	7	2	6	10	2
Inflation risk	3	8	2	3	7	2
Diversification effect ^a	(47)	n/a	n/a	(60)	n/a	n/a
Total management VaR	29	39	21	38	75	27

The three main contributors to total Management VaR were credit, interest rate and spread risks. From average 2012 levels, average VaR for credit risk fell by £8m (31%), interest rate risk fell by £1m (7%) and spread risk fell by £12m (52%). Overall average VaR for the Investment Bank fell by £9m (24%).

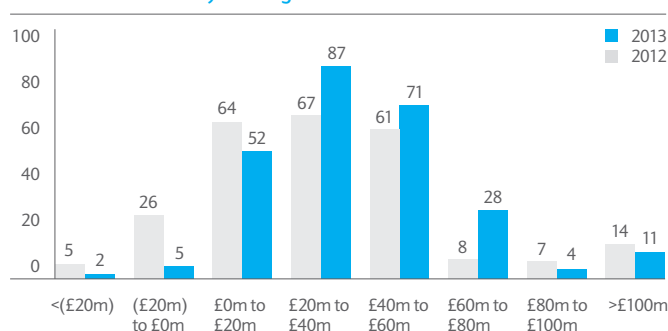
Equity risk VaR is the only risk factor that has shown an increase since 2012 as the business supported several key primary market activities over the year as well as increased volume.

The business remained within the management VaR limits approved by the Board Financial Risk Committee (BFRC) throughout 2013 for both risk factor VaR and total VaR.

Investment Bank management VaR



Investment Bank daily trading revenue



The histogram above shows the distribution of daily revenue for the Investment Bank in 2013 and 2012. This includes all income generated by Investment Bank except for Private Equity and Principal Investments. Business performance is discussed in more detail on page 260 of the 2013 Annual Report.

The average daily revenue at the Investment Bank in 2013 was £41m, down 11% from 2012, however, there were more positive trading revenue days in 2013 than in 2012, with 97% of days generating positive trading revenue compared to 88% in 2012. The volatility of income was lower in 2013, in line with the decrease in average management VaR and lower market volatility.

Note

a 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.

Investment Bank balance sheet and management VaR

The table below provides an overview of the assets and liabilities of the major trading portfolios in the Investment Bank and associated standalone Management VaR. Whilst the table on page 75 shows the total balance sheet breakdown for the Group, split by traded and non-traded net balance sheet, the table below shows the assets and liabilities for the major trading portfolios in Investment Bank that are most sensitive to market risk. These comprise available for sale investments, debt securities in issue, derivative financial instruments, positions with other financial institutions at fair value, repurchase agreements, and trading portfolio assets/liabilities. The corresponding management VaR shown is on a standalone business perspective; refer to the table on page 76 for the total Investment Bank Management VaR by risk factor.

Table 47: Principal asset and liability balances subject to market risk in the Investment Bank

For the year ended 31 December 2013						
Portfolio	Description of business activity	Assets £m	Liabilities £m	Average Standalone Management VaR £m	Principal balance sheet line items	Principal market risk exposure
Fixed Income, Currencies and Commodities	Market maker in fixed income, currencies and commodity markets.	518,647	505,356	19	Derivative financial instruments and repurchase agreements and trading portfolio assets/liabilities.	Market risk exposure arises from credit trading including bond syndication, and interest rate, currency and commodity market making and trading. The business is well-diversified leading to lower risk.
Client Capital Management	This function primarily manages counterparty risk exposures arising from derivative contracts.	3,221	4,996	15	Trading portfolio assets/liabilities and derivative financial instruments and available for sale financial instruments.	Hedging the firm's credit including counterparty risk exposure on derivatives.
Other Credit	Provides specific credit market exposures.	1,237	370	9	Trading portfolio assets/liabilities.	Risk exposure is primarily to credit markets.
Equities	Provides equity market making and risk management services for clients.	16,265	16,954	8	Trading portfolio assets/liabilities and derivative financial instruments.	Provides derivative solutions to clients. The business also supports cash equity trading, primary market issuance and block trades.
Portfolio Asset Book	Manages assets from non-core operations, including Exit Quadrant assets.	14,754	6,036	2	Trading portfolio assets/liabilities and derivative financial instruments and repurchase agreements.	Credit exposures which the business has been managing down.
Investment Bank Treasury	Provides funding and liquidity services.	27,780	22,128	11	Available for sale financial investments and debt securities in issue.	The principal service is the execution of liquidity and funding operations.
Other Investment Bank assets and liabilities	–	281,888	238,588	–	Loans and advances and cash at central banks.	–
Other Investment Bank VaR and VaR diversification	–	–	–	(36)	–	–
Total Investment Bank	–	863,792	794,428	29	–	–

In order to provide an estimation of the scale of the balance sheet instruments that generate market risk, as defined by Barclays for purposes of risk management, assets and liabilities of the significant Investment Bank business lines have been aggregated. Due to differences in data sets for market risk and IFRS reporting, whilst assets and liabilities exclude balance sheet line items that would clearly not generate market risk (e.g. fixed assets), some line items included (e.g. financial assets designated at fair value) could contain assets that do not generate market risk. Therefore other Investment Bank assets and liabilities contains (i) business lines that are primarily defined as banking book, and (ii) line items that should not generate market risk.

Management VaR is shown at 95th percentile. Market risks arising from the individual portfolios listed above diversify to provide total Investment Bank management VaR shown in table 46. Some functions such as Treasury and Client Capital Management shows exposure as a result of the service it provides to the client facing franchise, such as managing the firm's exposure to counterparty default or providing funding to execute business. Some client activities are not within the scope of management VaR, resulting in the potential diversification not being captured. On the other hand, management VaR associated with Fixed Income, Currencies and Commodities reflects diversification within that business line.

The primary client facing businesses such as FICC and Equities contribute to the majority of the total balance sheet assets. The Portfolio Asset Book manages credit exposures, which have been reduced over the year in line with the Exit Quadrant strategy.

Combined Scenario Stresses

As part of Barclays' 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 six global scenarios are modelled on a regular basis, for example, a sharp deterioration in liquidity, a slowdown in the global economy, terrorist attacks, global recession and a sovereign peripheral crisis.

Similar to 2012, throughout 2013 the scenarios analysis showed the biggest market risk related impact would be due to a severe deterioration in liquidity and a rapid slowdown in global economy.

Review of regulatory measures

The following disclosures provide details on regulatory measures of market risk. See pages 138 and 139 for more detail on regulatory measures and the differences when compared to management measures.

Barclays' market risk capital requirements comprise two elements:

- Trading book positions booked to legal entities within the scope of Barclays' PRA waiver where the market risk is measured under a PRA approved internal models approach, including regulatory VaR, Stressed Value at Risk (SVaR), Incremental Risk Charge (IRC) and All Price Risk (APR) as required; and
- Trading book positions that do not meet the conditions for inclusion within the approved internal models approach. Their capital requirement is calculated using standardised rules.

The below table summarises the regulatory market risk measures, under the internal models approach.

Table 48: Analysis of regulatory VaR, SVaR, IRC and APR measures

	Year-end £m	Average £m	Max £m	Min £m
As at 31 December 2013				
Regulatory VaR	42	46	67	31
SVaR	90	85	112	61
IRC	139	238	539	115
APR	29	141	183	29
As at 31 December 2012				
Regulatory VaR	44	68	133	42
SVaR	68	111	139	68
IRC	532	574	931	362
APR	176	213	275	176

Average regulatory VaR fell by 32% to £46m (2012: £68m) and average SVaR fell by 23% to £85m (2012: £111m), both driven by improving market volatility and portfolio diversification.

Average IRC fell by 59% to £238m (2012: £574m) driven by a reduction in exposure to lower rated sovereign positions and a change in directional risk in corporate debt.

Average APR reduced by 34% to £141m (2012: £213m) due to an exit of a significant portion of the correlation portfolio.

Table 49: Breakdown of the major regulatory risk measures by portfolio

	Fixed Income, Currencies and Commodities £m	Client Capital Management £m	Other Credit £m	Equities £m	Portfolio Asset Book £m	Treasury £m
As at 31 December 2013						
Regulatory VaR	24	25	1	21	2	3
SVaR	53	41	5	82	3	14
IRC	240	60	–	24	79	2
APR	27	–	–	–	8	–

The table above shows the primary portfolios which are driving Investment Bank's modelled capital requirement as at 2013 year end. The standalone portfolio results diversify at the total Investment Bank level and are not necessarily additive. Regulatory VaR in the prior table shows the total Investment Bank results.

Capital requirements for market risk

The table below shows the capital requirements and risk weighted assets by Position Risk Requirement (PRR) as defined in BIPRU under the market risk framework. Barclays 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 48, using the higher of the end of period value or an average over the last 60 days (times a multiplier in the case of VaR and SVaR).

Table 50: Minimum capital requirement for market risk

	Capital requirements		Risk weighted assets	
	As at 31.12.13 £m	As at 31.12.12 £m	As at 31.12.13 £m	As at 31.12.12 £m
Market risk				
VaR model based PRR	400	539	4,998	6,742
SVaR PRR	795	1,239	9,934	15,488
APR measure requirement	80	176	996	2,200
RNIV	350	471	4,391	5,884
Incremental risk charge requirement	168	587	2,103	7,338
Interest rate PRR	899	1,465	11,238	18,307
Equity PRR	338	382	4,224	4,775
Option PRR	21	30	261	375
Collective investment schemes PRR	68	79	848	988
Commodity PRR	4	14	51	175
Foreign exchange PRR	27	84	335	1,050
Total market risk capital requirement	3,150	5,066	39,379	63,322
Specific interest rate risk of securitisation positions	88	171	1,101	2,138

On table 50, VaR model based and SVaR contribute towards the modelled VaR RWAs (see table 8); APR, RNIV and IRC contribute towards the charges add-on and non-VaR RWAs; with the remainder contributing towards the standardised approach.

RWAs decreased by 37.8% to £39.4bn (2012: £63.3bn) due to improving market conditions and general reduction in exposures across the main books, for example, sovereign exposures affecting the IRC charge. See page 23 for more information on the market risk capital requirement.

The model includes RNIVs, as described on page 137. Significant RNIVs over the year have been:

- Correlation risk in equity baskets and option trades
- Exposure to certain pegged currencies
- Some derivatives are discounted based on a methodology that takes into account the optionality to post collateral in a range of currencies.

Non-traded market risk review

Net interest income sensitivity

The table below shows sensitivity analysis on the pre-tax net interest income for the non-trading financial assets and financial liabilities held at 31 December 2013 and 31 December 2012. The sensitivity has been measured using the Annual Earnings at Risk (AEaR) methodology as described on page 142. The benchmark interest rate for each currency is set as at 31 December 2013. The effect of structural hedging is taken into account.

Table 51: Net interest income sensitivity (AEaR) by business unit

As at 31 December	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Corporate Banking £m	Wealth and Investment Management £m	Other ^a £m	Total £m
2013								
+200bps	219	9	19	(84)	101	53	(92)	225
+100bps	118	5	9	(42)	50	27	(57)	110
-100bps	(140)	(1)	(8)	25	(160)	(15)	56	(243)
-200bps	(160)	(1)	(15)	26	(170)	(22)	49	(293)
2012								
+200bps	254	(3)	62	(99)	83	51	22	370
+100bps	135	(2)	29	(49)	41	25	3	182
-100bps	(175)	2	(25)	27	(143)	(15)	(45)	(374)
-200bps	(214)	2	(50)	18	(147)	(16)	(26)	(433)

Total AEaR to a +200bp shock decreased by 39% to £225m (2012: £370m), and to a -200bp shock, total AEaR decreased by 32% to £(293)m (2012: £(433)m). The drivers of these differences were predominantly due to large changes in UK RBB, Africa RBB and Other.

The change in UK RBB was due to a reduction in savings margin compression sensitivity due to additional hedges being transacted and a change in modelling pricing assumptions for managed rate deposits in that they will follow market movements more closely.

The change in Africa RBB was primarily due to exchange rates and a reduction in asset and liability mismatch positions.

The change in Other was a combination of changes in the equity structural hedge durations (across GBP, EUR and USD) and a change in the hedge ineffectiveness sensitivity driven by increases in hedge positions (partly due to the rights issue in 2013).

Banking book exposures held or issued by the Investment Bank are excluded as these are measured and managed using VaR. AEaR to 100bp shocks decreased for the same reasons as outlined above and is split by currency in the table below.

Table 52: Net interest income sensitivity (AEaR) by currency

As at 31 December	2013		2012	
	+100 bps £m	-100 bps £m	+100 bps £m	-100 bps £m
GBP	92	(199)	96	(273)
USD	9	(21)	30	(23)
EUR	(18)	(7)	20	(49)
ZAR	10	(9)	27	(25)
Other currencies	17	(7)	9	(4)
Total	110	(243)	182	(374)
As percentage of net interest income	0.95%	(2.09%)	1.56%	(3.21%)

Note

a Other consists of Group Treasury and adjustments made for hedge ineffectiveness.

Barclays measure some non-traded market risks using an Economic Capital (EC) methodology. EC is predominantly calculated using a daily VaR model and then scaled up to a 1 year EC confidence interval (99.98%). For more information on definitions of prepayment, recruitment and residual risk, and on how EC is used to manage market risk, see the market risk management section on page 142.

Table 53: Economic capital by business unit

As at 31 December	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Corporate Banking £m	Wealth and Investment Management £m	Total £m
2013							
Prepayment risk	29	–	–	10	2	–	41
Recruitment risk	111	–	–	2	1	–	114
Residual risk	6	13	38	4	1	3	65
2012							
Prepayment risk	38	–	–	13	2	–	53
Recruitment risk	27	–	–	1	1	–	29
Residual risk	5	15	35	2	1	1	59

Total Economic Capital (EC) increased by 56% to £220m, predominately due to the increase in recruitment risk, the risk that arises when the Group commits to providing a product at a predetermined price for a future period, but where the customer has no contractual obligation to take up the product. Recruitment risk EC in UK RBB increased from £27m to £111m driven by an increase in mortgage pre-hedging due to continuing high volumes (particularly in the five year term).

Analysis of equity sensitivity

The table below measures the overall impact of a +/- 100bps movement in interest rates on available for sale and cash flow hedge reserves. This data is captured using PV01 (Present Value of 1bp) which is an indicator of the shift in asset value for a 1bp shift in the yield.

Table 54: Analysis of equity sensitivity

As at 31 December	2013		2012	
	+100 bps £m	-100 bps £m	+100 bps £m	-100 bps £m
Net Interest Income	110	(243)	182	(374)
Taxation effects on the above	(27)	61	(51)	105
Effect on profit for the year	83	(182)	131	(269)
As percentage of net profit after tax	6.40%	(14.03%)	72.38%	(148.62%)
Effect on profit for the year (per above)	83	(182)	131	(269)
Available for sale reserve	(861)	861	(673)	673
Cash flow hedge reserve	(2,831)	2,808	(2,179)	2,260
Taxation effects on the above	923	(917)	799	(821)
Effect on equity	(2,686)	2,570	(1,922)	1,843
As percentage of equity	(4.20%)	4.02%	(3.20%)	3.07%

The higher sensitivity on AFS reserves is driven by an increase in debt securities held for liquidity purposes. The higher sensitivity on cash flow hedge reserves is driven by an increased volume of positions during the period.

Foreign exchange risk

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

a) Transactional foreign currency exposure

Transactional foreign exchange 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 prevent the holding of significant open positions in foreign currencies outside the trading portfolio managed by the Investment Bank which is monitored through DVaR.

There were no material net transactional foreign currency exposures outside the trading portfolio during 2013 or 2012. Due to the low level of non-trading exposures no reasonably possible change in foreign exchange rates would have a material effect on either the Group's profit or movements in equity for either of the years ended 31 December 2013 or 2012.

b) Translational foreign exchange exposure

The Group's investments in overseas subsidiaries and branches create capital resources denominated in foreign currencies principally US Dollar, Euro and South African Rand. 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 Common Equity Tier 1 Capital.

The Group's strategy is to minimise the volatility of the capital ratios caused by foreign exchange movements, by using the Common Equity Tier 1 Capital movements to broadly match the revaluation of the Group's foreign currency RWA exposures.

During 2013, total structural currency exposures net of hedging instruments remained stable at £16.2bn (2012: £15.7bn).

The economic hedges primarily represent the US Dollar and Euro preference shares and additional Tier 1 instruments that are held as equity, accounted for at historic cost under IFRS and do not qualify as hedges for accounting purposes.

Table 55: 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 2013						
US Dollar	34,220	5,555	12,558	16,107	5,812	10,295
Euro	9,336	538	5,570	3,228	2,833	395
Rand	3,835	–	114	3,721	–	3,721
Japanese Yen	454	89	352	13	–	13
Other	2,850	–	1,101	1,749	–	1,749
Total	50,695	6,182	19,695	24,818	8,645	16,173
As at 31 December 2012						
US Dollar	34,798	6,251	13,861	14,686	4,822	9,864
Euro	5,314	1,494	1,990	1,830	1,951	(121)
Rand	4,080	–	131	3,949	–	3,949
Japanese Yen	597	175	407	15	–	15
Other	3,040	–	1,027	2,013	–	2,013
Total	47,829	7,920	17,416	22,493	6,773	15,720

Pension risk review

The UK Retirement Fund (UKRF) represents approximately 91% of the Group's total retirement benefit obligations globally. The other material overseas schemes are in South Africa and the US where they represent approximately 5% and 2% respectively of the Group's total retirement benefit obligations. As such, this risk review section focuses exclusively on the UKRF.

Pension risk arises because the estimated market value of the pension fund assets might decline; or the investment returns might reduce; or the estimated value of the pension liabilities might increase.

See page 143 for more information on how pension risk is managed.

Assets

The Board of Trustees defines an overall long-term investment strategy for the UKRF, with investments across a broad range of asset classes. This ensures an appropriate mix of return seeking assets to generate future returns as well as liability matching assets to better match the future pension obligations. The main market risks within the asset portfolio are against interest rates and equities, as shown by the analysis of scheme assets within note 37 of the 2013 Annual Report.

Fair value of UKRF plan assets increased by 4% to £23.7bn (2012: £22.8bn), driven by equities on the back of an equities rally. However, equities risk within the portfolio was relatively unchanged as its percentage against the rest of the portfolio remained stable.

Liabilities

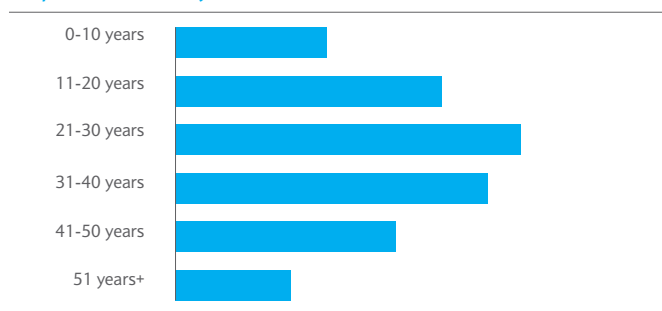
The retirement benefit obligations are a series of future cash flows with relatively long duration. On an IAS 19 basis these cash flows are sensitive to changes in the expected long term inflation rate and the discount rate (AA corporate bond yield curve):

- An increase in long term inflation corresponds to an increase in liabilities.
- An increase in the discount rate corresponds to a decrease in liabilities.

Pension risk is generated through the Group's defined benefits schemes and this risk is deemed to move to zero over time as the chart below shows. The chart below outlines the shape of the uninflated liability cashflow profile with the majority of the cash flows (approximately 75%) falling between 0 and 40 years, peaking within the 21 to 30 year band and reducing thereafter. The shape may vary depending on changes in inflation expectation and mortality and it is updated in line with triennial valuation process.

For more detail on liability assumptions see note 37 in the 2013 Annual Report.

Proportion of liability cashflows



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 positions on a total portfolio level. This ensures that the risks, diversification benefits and liability matching characteristics of the UKRF obligations and investments are adequately captured. VaR is measured and monitored on a monthly basis at the pension risk fora such as the Market Risk Committee, Pension Management Group and Pensions Executive Board. The VaR model takes into account the valuation of the liabilities based on an IAS 19 basis (see note 37 of the 2013 Annual Report). The Trustees, via their consultants Towers Watson, receive quarterly VaR measures on a funding basis.

In addition to this, the impact of pension risk to the Group is taken into account as part of the stress testing process. Stress testing is performed internally at least on an annual basis, covering scenarios such as European economic crisis and quantitative easing. The UKRF exposure is also included as part of the regulatory stress tests and exercises indicated the UKRF risk profile is resilient to severe stress events.

Unlike traded market risk, the capital requirement for pension risk is not reflected in risk weighted assets. Instead, the calculation is applied as a deduction from capital resources which has a similar effect on capital ratios.

Triennial valuation

The last triennial valuation was started with an effective date of 30 September 2010. In compliance with the Pensions Act 2004, the current valuation is being carried out with an effective date of 30 September 2013. During 2014, the Bank and Trustees will agree a scheme-specific fund.

Analysis of securitisation exposures

This section focuses on the credit risk, counterparty credit risk and market risk arising from securitisation positions. These exposures are subject to a different risk weighted assets calculation framework, and are disclosed separately.

- Banking book securitisation exposure reduced 23.6% to £21.7bn, primarily driven by reductions in Exit Quadrant assets.
- Trading book securitisation exposure reduced 8.3% to £3.3bn, predominantly driven by residential mortgages and commercial mortgages across a number of trading positions in UK and Europe.

We have reduced exposure to securitisations this year

Reduction

23.6%

Relating to banking book securitisation exposure.

Reduction

69.0%

Relating to capital requirements for banking book exposures.

Risk and capital position review >

Analysis of securitisation exposures

For the purposes of Pillar 3 disclosure, 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 are undertaken for a variety of reasons including the transfer of risk for Barclays or on behalf of a client.

The tables below detail exposures from securitisation trades entered into by the Group and cover banking book 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 86 for further details on Barclays' securitisation activities.

This year's enhancements have been made to provide further transparency and granularity from prior disclosures. Prior period tables have been restated where appropriate.

Barclays completes the Pillar 3 disclosures in accordance with the Basel framework, 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 – statutory versus regulatory view for securitisation exposures

Table 1 shows a reconciliation between Barclays PLC balance sheet for statutory purposes versus a regulatory review. Specifically for securitisation positions, the regulatory balance sheet will differ 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 144 for a summary of accounting policies for securitisation activities).
- Securitisation positions are treated in accordance with the Group's accounting policies, as set out in the 2013 Annual Report. 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 SPV. These balances are disclosed in table 59.

Location of securitisation risk disclosures

Securitisation exposures are subject to a different risk weighted asset framework, therefore further granular disclosures are provided in addition to the exposure balances disclosed in the credit, counterparty and market risk sections.

Securitisation positions are also treated as a deduction from capital rather than a risk weighted asset where it has received the maximum risk weight of 1250% or K_{IRB} is applied in accordance with the Basel framework.

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

As at 31.12.13	Exposure value £m	RWAs £m	Capital requirement £m	Table number in this document
Banking book				
Standardised approach				
Credit risk	277	102	8	14
Total standardised approach	277	102	8	60
Advanced IRB				
Credit risk	19,925	3,101	248	14
Counterparty credit risk	1,102	368	29	39, 40
Subject to capital deductions	404		404	62
Total IRB	21,431	3,469	681	60
Total banking book	21,709	3,571	689	60
Trading book – specific interest rate market risk				
Risk weighted assets	2,672	1,101	88	50
Capital deductions	604		604	62
Total market risk	3,276	1,101	692	60

Table 56: Securitisation activity during the year

This table discloses a summary of the securitisation activity during 2013, including the amount of exposures securitised and recognised gain or loss on sale in the banking book. Barclays is involved in the origination of traditional and synthetic securitisations. A securitisation is considered to be a synthetic securitisation where the underlying assets are not sold into the special purpose entity (SPE). Instead their performance is transferred into the vehicle through a synthetic instrument such as a credit default swap, a credit linked note or a financial guarantee.

	Banking book			
	Traditional £m	Synthetic £m	Total banking book £m	Gain/loss on sale £m
As at 31.12.13				
Originator				
Residential mortgages	–	99	99	–
Commercial mortgages	1,354	–	1,354	49
Credit card receivables	–	–	–	–
Leasing	–	–	–	–
Loans to corporates or SMEs	–	–	–	–
Consumer loans	–	–	–	–
Trade receivables	–	–	–	–
Securitisations/ Re-securitisations	–	–	–	–
Other assets	113	–	113	2
Total	1,467	99	1,566	51
As at 31.12.12				
Originator				
Residential mortgages	–	–	–	–
Commercial mortgages	1,176	–	1,176	44
Credit card receivables	–	–	–	–
Leasing	–	–	–	–
Loans to corporates or SMEs	–	–	–	–
Consumer loans	–	–	–	–
Trade receivables	–	–	–	–
Securitisations/ Re-securitisations	–	–	–	–
Other assets	–	–	–	–
Total	1,176	–	1,176	44

The value of assets securitised in the banking book increased by 33.2% to £1.6bn. Barclays' involvement in securitisation activities has remained consistent year on year:

- Increases in traditional commercial mortgage programmes are due to Barclays' continued involvement in the securitisation of commercial mortgage loans, alongside third party banks. The amount shown in table 56 represents Barclays' share of assets contributed to the securitisation.
- As part of these transactions, Barclays held assets on its balance sheet prior to securitisation.
- Barclays may participate in secondary trading of these positions in its trading book. At 31 December 2013, the exposure value of positions held was £21m. These are not reflected in the above table as for trading book purposes, Barclays is considered to be an investor.
- Increases in residential mortgage synthetic securitisations relate to the UK Retail Bank where credit protection has been received over of a portfolio of residential mortgages as part of the UK NewBuy scheme.
- Barclays also participates in re-securitisations of real estate mortgage investment conduits (Re-REMICs) and purchases trading book assets for securitisations as part of its general trading book activities. We have not included this in table 56 as during this period originated trading book assets were not subject to the same regulatory requirements (significant risk transfer assessment) as the banking book. For information, the total market value of assets contributed to re-REMICs during 2013 was £0.9bn (2012: £1.6bn).

Risk and capital position review >

Analysis of securitisation exposures continued

Table 57: Assets awaiting securitisation

This table discloses the value of assets held on the balance sheet at year end and awaiting securitisation.

Exposure Type	Banking book £m	Trading book £m
As at 31.12.13		
Originator		
Residential mortgages	58	–
Commercial mortgages	601	–
Credit card receivables	–	–
Leasing	–	–
Loans to corporates or SMEs	–	–
Consumer loans	–	–
Trade receivables	–	–
Securitisations/ Re-securitisations	–	–
Other assets	80	–
Total	739	–
As at 31.12.12		
Originator		
Residential mortgages	54	–
Commercial mortgages	173	–
Credit card receivables	–	–
Leasing	–	–
Loans to corporates or SMEs	–	–
Consumer loans	22	–
Trade receivables	–	–
Securitisations/ Re-securitisations	–	–
Other assets	–	–
Total	249	–

Banking book assets awaiting securitisation increased to £0.7bn, with no significant exposures to note.

Table 58: Outstanding amount of exposures securitised – asset value and impairment charges

This table presents the asset values and impairment charges relating to securitisation programmes where Barclays is the originator or sponsor. Where Barclays contributed assets to a securitisation alongside third parties, the amount represents the entire asset pool. Barclays is considered a sponsor of two multi-seller asset-backed commercial paper (ABCP) conduits.

	Banking book				Trading book	
	Traditional £m	Synthetic £m	Total banking book £m	Of which past due £m	Recognised losses £m	Traditional £m
As at 31.12.13						
Originator						
Residential mortgages	8,518	99	8,617	928	–	65
Commercial mortgages	5,781	–	5,781	–	–	–
Credit card receivables	–	–	–	–	–	–
Leasing	–	–	–	–	–	–
Loans to corporates and SMEs	4,616	2,920	7,536	169	–	–
Consumer loans	–	–	–	–	–	–
Trade receivables	–	–	–	–	–	–
Securitisations/ Re-securitisations	977	–	977	–	–	–
Other assets	–	–	–	–	–	–
Total (Originator)	19,892	3,019	22,911	1,097	–	65
Sponsor						
Residential mortgages	1,052	–	1,052	–	–	–
Commercial mortgages	–	–	–	–	–	–
Credit card receivables	–	–	–	–	–	–
Leasing	99	–	99	–	–	–
Loans to corporates and SMEs	–	–	–	–	–	–
Consumer loans	2,949	–	2,949	42	–	–
Trade receivables	152	–	152	–	–	–
Securitisations/ Re-securitisations	–	–	–	–	–	–
Other assets	605	–	605	–	–	–
Total (Sponsor)	4,857	–	4,857	42	–	–
Total	24,749	3,019	27,768	1,139	–	65

Risk and capital position review >

Analysis of securitisation exposures continued

Table 58 (Continued)

As at 31.12.12	Banking book				Trading book	
	Traditional £m	Synthetic £m	Total banking book £m	Of which past due £m	Recognised losses £m	Traditional £m
Originator						
Residential mortgages	13,497	–	13,497	1,358	–	72
Commercial mortgages	9,611	–	9,611	–	–	–
Credit card receivables	–	–	–	–	–	–
Leasing	–	–	–	–	–	–
Loans to corporates and SMEs	5,724	3,193	8,917	305	–	2
Consumer loans	–	–	–	–	–	–
Trade receivables	–	–	–	–	–	–
Securitisations/ Re-securitisations	3,386	–	3,386	486	159	20
Other assets	–	–	–	–	–	–
Total (Originator)	32,218	3,193	35,411	2,149	159	94
Sponsor						
Residential mortgages	2,117	–	2,117	61	4	–
Commercial mortgages	–	–	–	–	–	–
Credit card receivables	–	–	–	–	–	–
Leasing	86	–	86	–	–	–
Loans to corporates and SMEs	–	–	–	–	–	–
Consumer loans	2,639	–	2,639	74	–	–
Trade receivables	36	–	36	–	–	–
Securitisations/ Re-securitisations	19	–	19	–	–	–
Other assets	309	–	309	–	–	–
Total (Sponsor)	5,206	–	5,206	135	4	–
Total	37,424	3,193	40,617	2,284	163	94

Banking book securitised assets where Barclays is considered to be the originator or sponsor have reduced by 31.6% to £27.8bn reflecting;

Originator:

- Originated residential mortgage positions reduced 36.9% to £8.5bn largely due to the reclassification of £5.6bn warehouse positions that no longer meet the definition of originator, as the underlying assets were not held on Barclays' balance sheet.
- Exposures in commercial mortgages, loans to corporates and SMEs and re-securitisations have reduced by 34.8% to £14.3bn driven by the reduction in Exit Quadrant assets.

Sponsor:

- Reduction in sponsored positions relate to the sale of asset backed securities underlying the Surrey and Sussex conduits. Barclays continues to provide liquidity and programme-wide credit enhancement to its remaining conduits: Sheffield Receivables Corporation and Salisbury Receivables Company.

Note

a Minor reclassifications from prior year for sponsored positions to provide additional granularity.

Risk and capital position review >

Analysis of securitisation exposures continued

Table 59: Securitisation exposures – by exposure class

The table below discloses the aggregate amount of securitisation exposures held and has the population consistent with table 60, table 63, and table 64.

For originated positions, the table below discloses the exposure that Barclays has retained in the securitisation programmes disclosed in table 58. For clarity, table 58 discloses the underlying asset value of these programmes.

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

As at 31.12.13	Banking book				Trading book		
	Originator £m	Sponsor £m	Investor £m	Total banking book £m	Originator £m	Investor £m	Total trading book £m
On-balance sheet							
Residential mortgages	1,092	1,052	1,722	3,866	65	2,009	2,074
Commercial mortgages	56	–	4	60	–	305	305
Credit card receivables	–	–	492	492	–	103	103
Leasing	–	99	5	104	–	–	–
Loans to corporates or SMEs	4,106	–	1,099	5,205	–	248	248
Consumer loans	–	2,903	777	3,680	–	281	281
Trade receivables	–	152	–	152	–	–	–
Securitisations/ Re-securitisations	279	–	517	796	–	65	65
Other assets	–	605	672	1,277	–	117	117
Total on-balance sheet	5,533	4,811	5,288	15,632	65	3,128	3,193
Off-balance sheet							
Residential mortgages	531	–	1,159	1,690	–	66	66
Commercial mortgages	–	–	555	555	–	6	6
Credit card receivables	–	–	532	532	–	–	–
Leasing	–	–	–	–	–	–	–
Loans to corporates or SMEs	154	–	75	229	–	7	7
Consumer loans	–	46	1,838	1,884	–	–	–
Trade receivables	–	–	–	–	–	–	–
Securitisations/ Re-securitisations	–	–	36	36	–	4	4
Other assets	–	–	1,151	1,151	–	–	–
Total off-balance sheet	685	46	5,346	6,077	–	83	83
Total	6,218	4,857	10,634	21,709	65	3,211	3,276

Risk and capital position review >

Analysis of securitisation exposures continued

Table 59 (Continued)

As at 31.12.12	Banking book				Trading book		
	Originator £m	Sponsor £m	Investor £m	Total banking book £m	Originator £m	Investor £m	Total trading book £m
On-balance sheet							
Residential mortgages	669	1,302	4,417	6,388	72	2,084	2,156
Commercial mortgages	111	–	55	166	–	374	374
Credit card receivables	–	–	82	82	–	138	138
Leasing	–	86	7	93	–	–	–
Loans to corporates or SMEs	4,926	–	3,093	8,019	2	339	341
Consumer loans	8	2,639	746	3,393	–	283	283
Trade receivables	–	36	–	36	–	–	–
Securitisations/ Re-securitisations	1,118	19	301	1,438	20	79	99
Other assets	–	309	1,247	1,556	–	75	75
Total on-balance sheet	6,832	4,391	9,948	21,171	94	3,372	3,466
Off-balance sheet							
Residential mortgages	564	190	1,702	2,456	–	94	94
Commercial mortgages	689	–	336	1,025	–	3	3
Credit card receivables	–	–	745	745	–	–	–
Leasing	–	–	–	–	–	–	–
Loans to corporates or SMEs	171	–	84	255	–	8	8
Consumer loans	2	–	1,915	1,917	–	–	–
Trade receivables	–	–	–	–	–	–	–
Securitisations/ Re-securitisations	36	–	23	59	–	3	3
Other assets	10	–	772	782	–	–	–
Total off-balance sheet	1,472	190	5,577	7,239	–	108	108
Total	8,304	4,581	15,525	28,410	94	3,480	3,574

The total amount of securitisation positions in the **banking book** has reduced by 23.6% to £21.7bn, driven by:

- Exposures in originated and invested exposures in loans to corporates or SMEs and re-securitisations reduced due to the disposal of Exit Quadrant assets.
- Reduction in invested UK residential mortgage backed (RMBS) securities.

The **trading book** exposure has reduced by 8.3% to £3.3bn, driven by residential mortgages resulting from movements across a number of positions.

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 Barclays is a swap provider to a SPV.

Risk and capital position review >

Analysis of securitisation exposures continued

Table 60: Securitisation exposures – 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. Barclays has approval to use, and therefore applies the IRB approach for the calculation of its RWAs for the majority of the portfolio. The total population is as per table 59, table 63, and table 64.

As at 31.12.13	Exposure value				Capital requirements			
	Originator £m	Sponsor £m	Investor £m	Total £m	Originator £m	Sponsor £m	Investor £m	Total £m
Banking book								
IRB approach								
Ratings based approach								
<= 10%	2,784	1,171	6,207	10,162	17	7	40	64
> 10% <= 20%	413	193	1,899	2,505	4	2	20	26
> 20% <= 50%	1,719	42	1,979	3,740	35	1	41	77
> 50% <= 100%	20	–	172	192	1	–	10	11
> 100% <= 650%	665	–	45	710	54	–	12	66
> 650% <= 1250%	–	–	2	2	–	–	1	1
> 1250% / deducted	74	–	330	404	74	–	330	404
Non-1250% deduction	–	–	–	–	–	–	–	–
Internal assessment approach	–	3,451	–	3,451	–	30	–	30
Supervisory formula method	266	–	–	266	2	–	–	2
Total IRB	5,941	4,857	10,634	21,432	187	40	454	681
Standardised approach	277	–	–	277	8	–	–	8
Total banking book	6,218	4,857	10,634	21,709	195	40	454	689
Trading book								
IRB approach								
Ratings based approach								
<= 10%	–	–	363	363	–	–	2	2
> 10% <= 20%	–	–	991	991	–	–	4	4
> 20% <= 50%	–	–	853	853	–	–	19	19
> 50% <= 100%	–	–	277	277	–	–	16	16
> 100% <= 650%	–	–	160	160	–	–	31	31
> 650% <= 1250%	–	–	28	28	–	–	16	16
> 1250% / deducted	65	–	539	604	65	–	539	604
Non-1250% deduction	–	–	–	–	–	–	–	–
Total trading book	65	–	3,211	3,276	65	–	627	692

Risk and capital position review >

Analysis of securitisation exposures continued

Table 60 (Continued)

As at 31.12.12	Exposure value				Capital requirements			
	Originator £m	Sponsor £m	Investor £m	Total £m	Originator £m	Sponsor £m	Investor £m	Total £m
IRB approach								
Ratings based approach								
<= 10%	4,163	961	9,444	14,568	26	6	58	90
> 10% <= 20%	199	–	2,325	2,524	2	–	23	25
> 20% <= 50%	1,704	–	2,112	3,816	37	–	40	77
> 50% <= 100%	34	–	281	315	2	–	15	17
> 100% <= 650%	698	–	308	1,006	58	–	69	127
> 650% <= 1250%	12	–	3	15	6	–	1	7
> 1250% / deducted	694	205	922	1,821	694	205	922	1,821
Non-1250% deduction	–	–	–	–	–	–	–	–
Internal assessment approach	–	3,415	–	3,415	–	29	–	29
Supervisory formula method	475	–	–	475	7	–	–	7
Total IRB	7,979	4,581	15,395	27,955	832	240	1,128	2,200
Standardised approach	325	–	130	455	11	–	12	23
Total banking book	8,304	4,581	15,525	28,410	843	240	1,140	2,223
Trading book								
IRB approach								
Ratings based approach								
<= 10%	–	–	133	133	–	–	1	1
> 10% <= 20%	–	–	58	58	–	–	1	1
> 20% <= 50%	19	–	2,175	2,194	1	–	44	45
> 50% <= 100%	–	–	209	209	–	–	12	12
> 100% <= 650%	2	–	252	254	–	–	50	50
> 650% <= 1250%	–	–	77	77	–	–	43	43
> 1250% / deducted	73	–	576	649	73	–	576	649
Non-1250% deduction	–	–	–	–	–	–	–	–
Total trading book	94	–	3,480	3,574	74	–	727	801
Risk Weighted Band	IRB S&P Equivalent Rating				STD S&P Equivalent Rating			
<=10%	AAA to A+ (Senior Positions Only)				N/A			
> 10% <= 20%	A to A- (Senior Position Only) / AAA to A+ (Base Case)				N/A			
> 20% <= 50%	A to A- (Base Case)				AAA to AA-			
> 50% <= 100%	BBB+ to BBB (Base Case)				A+ to A-			
> 100% <= 650%	BBB- (Base Case) to BB (Base Case)				BBB+ to BB-			
> 650% <= 1250%	BB- (Base Case)				N/A			
> 1250% / deduction	B+ & Below (Base Case)				B+ & Below			
Non-1250% deduction	Cap deduction with assets rated BB- or above							

The total amount of securitisation positions in the **banking book** reduced 23.6% to £21.7bn primarily driven by;

- Decrease in the <10% band as a result of continued active reduction in CLO negative basis Exit Quadrant trades.
- Decrease in the 1250% band due to the disposal of Exit Quadrant assets, specifically the ABS CDO Super Senior positions.

Offset by:

- Increase in sponsored positions exposures to £4.9bn as Barclays continues to provide liquidity and programme wide credit enhancement to its remaining conduit vehicles. The majority of these positions are risk weighted using the internal assessment approach.

The **trading book** has reduced by 8.3% to £3.3bn in line with general market trading activities across the year.

Risk and capital position review >

Analysis of securitisation exposures continued

Table 61: Re-securitisation exposures - by risk weight band

This table is a subset of table 60 and discloses Barclays exposures to re-securitisations by capital approach. For the purposes of the table below, a re-securitisation is defined as a securitisation where at least one of the underlying exposures is a securitisation position. This is in line with Basel capital requirements.

For securitisations with mixed asset pools (for example some collateralised loan obligations), the exposure class disclosed in tables 59, 63 and 64 represents the exposure class of the predominant underlying asset class.

As at 31.12.13	Exposure value				Capital requirements			
	Originator £m	Sponsor £m	Investor £m	Total £m	Originator £m	Sponsor £m	Investor £m	Total £m
Banking book								
IRB approach								
Ratings based approach								
<= 10%	–	–	–	–	–	–	–	–
> 10% <= 20%	–	–	–	–	–	–	–	–
> 20% <= 50%	1,657	–	1,175	2,832	34	–	23	57
> 50% <= 100%	20	–	3	23	1	–	–	1
> 100% <= 650%	15	–	–	15	3	–	–	3
> 650% <= 1250%	–	–	–	–	–	–	–	–
> 1250% / deducted	–	–	46	46	–	–	46	46
Non-1250% deduction	–	–	–	–	–	–	–	–
Internal assessment approach	–	–	–	–	–	–	–	–
Supervisory formula method	–	–	–	–	–	–	–	–
Total IRB	1,692	–	1,224	2,916	38	–	69	107
Standardised approach	–	–	–	–	–	–	–	–
Total banking book	1,692	–	1,224	2,916	38	–	69	107
Trading book								
IRB approach								
Ratings based approach								
<= 10%	–	–	–	–	–	–	–	–
> 10% <= 20%	–	–	–	–	–	–	–	–
> 20% <= 50%	–	–	73	73	–	–	2	2
> 50% <= 100%	–	–	9	9	–	–	–	–
> 100% <= 650%	–	–	27	27	–	–	7	7
> 650% <= 1250%	–	–	8	8	–	–	5	5
> 1250% / deducted	65	–	107	172	65	–	107	172
Non-1250% deduction	–	–	–	–	–	–	–	–
Total trading book	65	–	224	289	65	–	121	186

Risk and capital position review >

Analysis of securitisation exposures continued

Table 61 (Continued)

As at 31.12.12	Exposure value				Capital requirements			
	Originator £m	Sponsor £m	Investor £m	Total £m	Originator £m	Sponsor £m	Investor £m	Total £m
Banking book								
IRB approach								
Ratings based approach								
<= 10%	–	–	–	–	–	–	–	–
> 10% <= 20%	–	–	–	–	–	–	–	–
> 20% <= 50%	1,245	–	1,771	3,016	25	–	32	57
> 50% <= 100%	10	–	84	94	1	–	5	6
> 100% <= 650%	10	–	48	58	2	–	11	13
> 650% <= 1250%	–	–	1	1	–	–	–	–
> 1250% / deducted	475	205	596	1,276	475	205	596	1,276
Non-1250% deduction	–	–	–	–	–	–	–	–
Internal assessment approach	–	19	–	19	–	–	–	–
Supervisory formula method	–	–	–	–	–	–	–	–
Total IRB	1,740	224	2,500	4,464	503	205	644	1,352
Standardised approach	–	–	–	–	–	–	–	–
Total banking book	1,740	224	2,500	4,464	503	205	644	1,352
Trading book								
IRB approach								
Ratings based approach								
<= 10%	–	–	–	–	–	–	–	–
> 10% <= 20%	–	–	–	–	–	–	–	–
> 20% <= 50%	–	–	37	37	–	–	1	1
> 50% <= 100%	–	–	4	4	–	–	–	–
> 100% <= 650%	2	–	49	51	–	–	11	11
> 650% <= 1250%	–	–	10	10	–	–	6	6
> 1250% / deducted	25	–	99	124	25	–	99	124
Non-1250% deduction	–	–	–	–	–	–	–	–
Total trading book	27	–	199	226	25	–	117	142

Banking book re-securitisations have decreased by 34.7% to £2.9bn across both originated and invested positions in line with the reduction in Exit Quadrant re-securitisation positions.

Risk and capital position review >

Analysis of securitisation exposures continued

Table 62: Total deductions for securitisation positions

This table discloses Barclays total capital deductions. A position is treated as a capital deduction where it has received the maximum risk weight of 1250% or K_{IRB} is applied in accordance with the Basel framework for securitisations. Where K_{IRB} is applied the capital deduction is the RWA equivalent/1250%.

	Banking book				Trading book		
	Originator £m	Sponsor £m	Investor £m	Total banking book £m	Originator £m	Investor £m	Total trading book £m
As at 31.12.13							
Residential mortgages	28	–	172	200	65	339	404
Commercial mortgages	2	–	4	6	–	54	54
Credit card receivables	–	–	14	14	–	–	–
Leasing	–	–	5	5	–	–	–
Loans to corporates and SMEs	44	–	19	63	–	72	72
Consumer loans	–	–	17	17	–	8	8
Trade receivables	–	–	–	–	–	–	–
Securitisations/ Re-securitisations	–	–	51	51	–	56	56
Other assets	–	–	48	48	–	10	10
Total	74	–	330	404	65	539	604
As at 31.12.12							
Residential mortgages	77	205	582	864	73	354	427
Commercial mortgages	21	–	43	64	–	51	51
Credit card receivables	–	–	–	–	–	4	4
Leasing	–	–	7	7	–	–	–
Loans to corporates and SMEs	43	–	3	46	–	87	87
Consumer loans	–	–	11	11	–	3	3
Trade receivables	–	–	–	–	–	–	–
Securitisations/ Re-securitisations	475	–	233	708	–	72	72
Other assets	10	–	53	63	–	5	5
Total	626	205	932	1,763	73	576	649

Banking book capital deductions have decreased 77% to £0.40bn driven by:

- Originated re-securitisation positions have reduced to nil following the disposal of ABS CDO super senior Exit Quadrant assets.
- Sponsored residential mortgage exposures have reduced to nil driven by the disposal of conduit ABS positions.
- Invested re-securitisation and residential mortgage exposures by reduced by 72.6% to £0.2bn relating to the reduction in Exit Quadrant assets specifically in CLO and structured credit positions.

Risk and capital position review >

Analysis of securitisation exposures continued

Table 63: Aggregate amount of securitised positions retained or purchased by geography - banking book

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

Exposure type	United Kingdom £m	Europe £m	Americas £m	Africa and Middle East £m	Asia £m	Total £m
As at 31.12.13						
Residential mortgages	3,010	64	1,847	235	400	5,556
Commercial mortgages	522	91	–	–	2	615
Credit card receivables	15	–	1,009	–	–	1,024
Leasing	–	–	104	–	–	104
Loans to corporates or SMEs	3,036	1,398	1,000	–	–	5,434
Consumer loans	261	201	5,102	–	–	5,564
Trade receivables	–	–	152	–	–	152
Securitisations/ Re-securitisations	–	302	530	–	–	832
Other assets	5	11	2,303	108	1	2,428
Total	6,849	2,067	12,047	343	403	21,709
As at 31.12.12						
Residential mortgages	4,925	212	2,544	69	1,094	8,844
Commercial mortgages	717	433	15	–	26	1,191
Credit card receivables	14	–	813	–	–	827
Leasing	–	–	93	–	–	93
Loans to corporates or SMEs	3,186	2,319	2,769	–	–	8,274
Consumer loans	231	244	4,835	–	–	5,310
Trade receivables	–	–	36	–	–	36
Securitisations/ Re-securitisations	15	484	998	–	–	1,497
Other assets	36	–	2,281	–	21	2,338
Total	9,124	3,692	14,384	69	1,141	28,410

The overall banking book exposure has reduced by 23.6% to £21.7bn due to a reduction of exposures across all geographies, the largest being America, UK and Europe. The reduction in residential mortgages and loans to corporates and SMEs is driven by the continued reduction in Exit Quadrant assets.

Risk and capital position review >

Analysis of securitisation exposures continued

Table 64: 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 £m	Europe £m	Americas £m	Africa and Middle East £m	Asia £m	Total £m
As at 31.12.13						
Residential mortgages	1,075	60	928	–	77	2,140
Commercial mortgages	19	27	265	–	–	311
Credit card receivables	23	5	75	–	–	103
Leasing	–	–	–	–	–	–
Loans to corporates or SMEs	42	82	131	–	–	255
Consumer loans	16	24	241	–	–	281
Trade receivables	–	–	–	–	–	–
Securitisations/ Re-securitisations	5	2	61	–	1	69
Other assets	–	–	117	–	–	117
Total	1,180	200	1,818	–	78	3,276
As at 31.12.12						
Residential mortgages	1,230	131	808	–	81	2,250
Commercial mortgages	55	45	274	–	3	377
Credit card receivables	48	6	84	–	–	138
Leasing	–	–	–	–	–	–
Loans to corporates or SMEs	70	81	198	–	–	349
Consumer loans	12	73	197	–	1	283
Trade receivables	–	–	–	–	–	–
Securitisations/ Re-securitisations	3	5	94	–	–	102
Other assets	8	2	65	–	–	75
Total	1,426	343	1,720	–	85	3,574

The overall trading book exposure has reduced by 8.3% to £3.3bn driven by reductions in the UK and Europe across a number of trading book positions.

Analysis of operational risk

This section contains details of capital requirements for operational risk, as well as the risk profile in terms of the frequency and losses associated with actual events in 2013.

- Barclays' operational risk profile in 2013 was dominated by further provisions for PPI (£1,350m) and interest rate hedging product redress (£650m).
- Capital requirements remained broadly stable, as the advanced measurement approach (AMA) calculation as at 31 December 2012 already took account of the potential for further losses related to these events. The small change is driven by acquisitions and disposals.

Operational risk RWAs remained stable in the year, though the Group took further provisions for conduct events

RWA increase

+£0.1bn

Loss amounts

90%

from clients, products and business practices category.

Risk and capital position review >

Analysis of operational risk

Operational risk capital requirements

Operational risks are inherent in the Group's business activities and are typical of any large operation. It is not cost effective to attempt to eliminate all operational risks and in any event it would not be possible to do so. Losses from operational risks of small significance are expected to occur and are accepted as part of the normal course of business. Those of material significance are rare and the Group seeks to reduce the likelihood of these in accordance with its risk appetite.

The Operational Principal Risk comprises the following Key Risks: CyberSecurity, External Suppliers, Financial Reporting, Fraud, Information, Legal, Payments, People, Premises and Security, Product, Regulatory, Taxation, Technology and Transaction Operations. For definitions of these key risks see page 148.

For more information on Legal, Regulatory and Taxation risks please see the Risk factors section of the 2013 Annual Report.

The following table details the Group's operational risk capital requirement. Barclays has approval from the PRA to calculate its operational risk capital requirement using a Basel 2 advanced measurement approach (AMA), although recently acquired businesses are excluded from this approval. Barclays uses the basic indicator approach while it transitions these areas to AMA.

See pages 147 to 150 for information on operational risk management.

Table 65: Risk weighted assets for operational risk

Risk weighted assets calculation approach									
	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Investment Bank £m	Corporate Banking £m	Wealth and Investment Management £m	Head Office and Other Operations £m	Total £m
As at 31.12.13									
Operational Risk									
Basic indicator approach	398	42	322	1,463	1,021	44	423	–	3,713
Standardised approach	–	–	–	–	–	–	–	–	–
Advanced measurement approach	6,282	2,086	3,764	5,010	23,787	6,673	2,839	159	50,600
Total operational risk capital requirement	6,680	2,128	4,086	6,473	24,808	6,717	3,262	159	54,313
As at 31.12.12									
Operational risk									
Basic indicator approach	243	308	239	1,343	987	35	339	–	3,494
Standardised approach	–	–	–	–	–	–	–	–	–
Advanced measurement approach	6,281	1,917	4,187	5,038	23,743	6,521	2,845	160	50,692
Total operational risk capital requirement	6,524	2,225	4,426	6,381	24,730	6,556	3,184	160	54,186

Barclays' operational risk capital requirement remained stable, at £54.3bn (2012: £54.2bn).

Barclays materially increased the capital requirement for operational risks during 2012, taking into account risk events impacting Barclays and the wider banking industry, principally relating to sales practices and market conduct risks, as well as adjustments for business growth and strategies.

Although the Group has taken a further charge of £2bn in relation to PPI and interest rate hedging product redress, the associated capital charge has not materially decreased during 2013.

Increases were made in respect of parts of the business using the basic indicator approach, where income from the prior three years is used as the relevant indicator (shown as Book size in table 9). Additional capital requirements were determined using the basic indicator approach in respect of Barclays Direct, acquired during the year (shown as Acquisitions and Disposals, including Exit Quadrant, in table 9). The value of the capital requirements for BAGL and Europe RBB increased when expressed in GBP (shown as Foreign exchange movement in table 9).

Operational risk profile

Barclays' operational risk profile in 2013 was dominated by further charges of £1,350m (2012: £1,600m) for PPI and interest rate hedging product redress of £650m (2012: £850m). In response to these and other historical issues, and following publication of the Salz review, work continues to enhance the internal control and risk management framework (see the risk management strategy, governance and risk culture section on page 101) with the creation of a new board level committee charged with specific oversight of operational and conduct risks, reputational matters and the citizenship strategy.

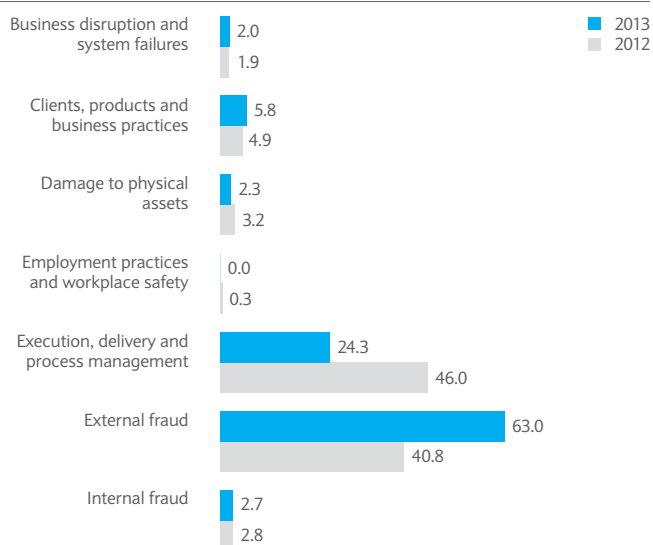
Within operational risk a high proportion of risk events have a low associated financial cost and a very small proportion of operational risk events will have a material impact on the financial results of the Group. In 2013 79.2% of the Group's net reportable operational risk losses had a value of £50,000 or less (2012: 74.7%) and accounted for only 1.8% (2012: 1.3%) of the Group's total net loss impact.

The analysis below presents Barclays' operational risk events by Basel 2 category. There has been a slight reduction in the proportion of losses by amount within the Clients, Products and Business Practices category to 90.0% (2012: 92.2%), but this is still heavily impacted by provisions for PPI and interest rate hedging product redress. Execution, Delivery and Process Management impacts increased to 5.2% (2012: 3.7%). These events are typical of the banking industry as a whole where high volumes of transactions are processed on a daily basis. These are often fully or partially recovered, resulting in low value net losses. External Fraud with 63% (2012: 41%), is the category with the highest frequency of events where high volume, low value events are also consistent with industry experience, driven by debit and credit card fraud.

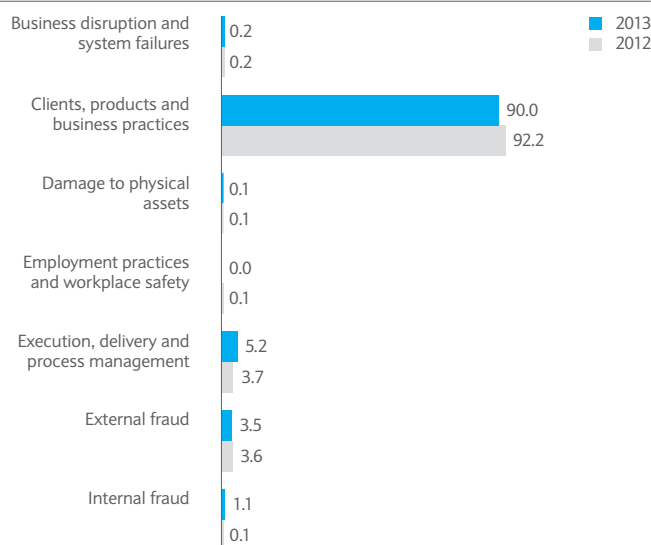
The Group's operational risk profile is informed by bottom-up risk assessments undertaken by each business unit and top-down qualitative review from the Operational Risk & Control Committee (ORCC). External Fraud and Technology have been noted by the ORCC as key operational risk exposures. External Fraud has increased driven by the higher number of fraud events, particularly in credit card portfolios, and business growth, whereas for Technology there is an ongoing programme of work to improve controls, through efficiency and automation, and a focus on infrastructure resilience. CyberSecurity risk continues to be an area of attention given the increasing sophistication and scope of potential cyber-attack. Risks to technology and CyberSecurity change rapidly and require continued focus and investment.

For further information see management of operational risk section (pages 148 to 150).

Operational risk events by risk category
% of total risk events by count



Operational risk events by risk category
% of total risk events by value



Risk management strategy, governance and risk culture

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

- A new Enterprise Risk Management Framework (ERMF) has been established in 2013 to further strengthen our approach to risk management, and ensure it is embedded at all levels of the organisation, across all Principal Risks (see pages 103 to 108).
- This new framework enables us to reinforce our risk culture, i.e. the set of common practices and principles that we follow when managing risks (see pages 102 to 103).
- A governance structure, encompassing the organisation of the function as well as executive and Board committees, supports the continued application of the ERMF.

i The following pages provide a comprehensive overview of Barclays approach to risk management and more specific information on policies that the Group determines to be of particular significance in the current operating environment.

This section outlines the Group's strategy for managing risk and how risk culture has been developed to ensure that there is a set of objectives and practices which are shared across the Group. It provides details of the Group's governance, how responsibilities are assigned and the committee structure. The last section provides an insight into how risk management is part of the strategy setting process, including the planning process, the setting of risk appetite and stress testing across the Group.

Barclays Risk Management Strategy

Barclays has clear risk management objectives and a well established strategy to deliver them, through core risk management processes.

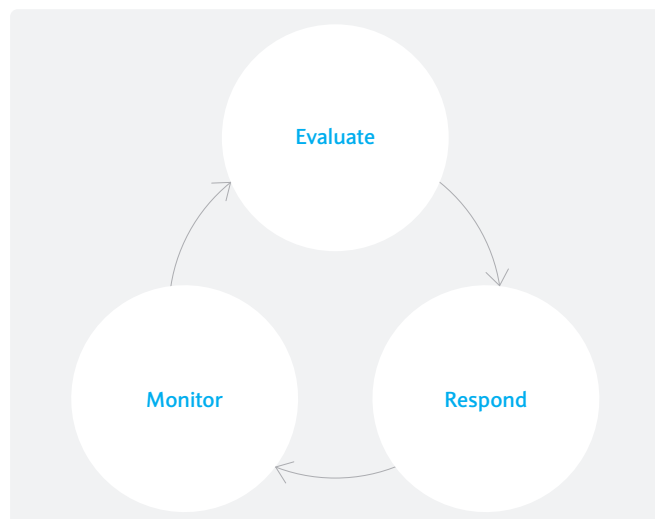
At a strategic level, the risk management objectives are to:

- Identify the Group's significant risks;
- Formulate the Group's risk appetite and ensure that the business profile and plans are consistent with it;
- Optimise risk/return decisions by taking them as closely as possible to the business, while establishing strong and independent review and challenge structures;
- Ensure that business growth plans are properly supported by effective risk infrastructure;
- Manage the risk profile to ensure that specific financial deliverables remain possible under a range of adverse business conditions; and
- Help executives improve the control and coordination of risk taking across the business.

In February 2013, Barclays announced the outcome of its strategic review and set out its commitments for 2015 which are critical to making Barclays the 'Go-To' bank for all its stakeholders.

As part of this commitment the Barclays 'Go-To' Enterprise Risk Management Framework (ERMF) sets out the activities, tools, techniques and organisational arrangements so that material risks facing the Bank can be better identified and understood, and that appropriate responses are in place to protect Barclays and prevent detriment to its customers, colleagues or community. This will help the Bank meet its goals, and enhance its ability to respond to new opportunities.

The aim of the 'Go-To' risk management process is to provide a structured, practical and easily understood set of three steps – Evaluate, Respond and Monitor (the E-R-M process) – that enables management to identify and assess those risks, determine the appropriate risk response, and then monitor the effectiveness of the risk response and changes to the risk profile.



1. Evaluate: Risk evaluation must be carried out by those individuals, teams and departments that are best placed to identify and assess the potential risks, and include those responsible for delivering the objectives under review.

2. Respond: The appropriate risk response effectively and efficiently ensures that risks are kept within appetite, which is the level of risk that Barclays is prepared to accept whilst pursuing its business strategy. There are three types of response: accept the risk but take the necessary mitigating actions such as using risk controls; stop the existing activity/do not start the proposed activity; or continue the activity but lay off risks to another party e.g. insurance.

3. Monitor: Once risks have been identified and measured, and controls put in place, progress towards objectives must be tracked. Monitoring must be ongoing and can prompt re-evaluation of the risks and/or changes in responses. Monitoring must be carried out proactively and is wider than just 'reporting' and includes ensuring risks are being maintained within risk appetite and checking that controls are functioning as intended and remain fit for purpose.

The process is orientated around material risks impacting delivery of objectives, and is used to promote an efficient and effective approach to risk management. This three step risk management process:

- Can be applied to every objective at every level in the bank, both top-down or bottom-up;
- Is embedded into the business decision making process;
- Guides our response to changes in the external or internal environment in which existing activities are conducted; and
- Involves all staff and all three lines of defence (see page 104).

Barclays' risk culture – enabling the 'Go-To' bank

In every area of Barclays' activities, outcomes of decisions or actions may be uncertain and could potentially impact whether, or how well, the Group delivers against its objectives. Risk management, therefore, plays a significant role in the Group achieving its goals and in turning Barclays into 'Go-To' bank.

Barclays risk culture is the set of objectives and practices, shared across the organisation, that drive and govern risk management.

Barclays' approach to managing risks >

Risk management strategy, governance and risk culture continued

The Salz Review^a issued recommendations to improve the culture of Barclays. Specifically, to develop a consistently strong risk culture, the report recommended:

- Embedding a strong, consistent risk control framework in all the businesses, that articulates responsibilities across the three lines of defence, and that reinforces the role of the front line;
- Clear risk appetite statements for all types of risk, embed adherence in all business units, and reinforce with strong management actions in cases of breaches; and
- Embedding risk and compliance criteria in performance evaluations, and in remuneration and promotion decisions.

During 2013 work streams have been initiated which implement the recommendations and help position the risk function to effectively and efficiently support Barclays' strategy.

The 'Transform Risk' initiative

During 2013 a new global management structure for risk was unveiled to improve delivery against the Transform commitments, to meet the demands of the regulators, the Board, and the wider business and also to create an appropriate environment for risk colleagues to work, advance their careers and contribute to the success of the Group.

'Transform Risk' is being led by the Risk Executive Committee, coordinated by the Global Risk COO, and supported by a team of people from across the risk function. It represents a significant shift in the operating model, process and systems, and will support the drive for both greater effectiveness and efficiency.

The Transform programme has provided the opportunity to extend best practices to more functions and business units, and in other cases identify needed updates or improvements. This work has been captured in the new Enterprise Risk Management Framework (ERMF) that has been deployed across the organisation and provides a common set of principles and standards that will form the fundamental elements of the risk culture.

The components of the ERMF set out a philosophy and approach that is applicable to the whole bank, to all colleagues and to all types of risk, hence establishing, maintaining and improving the risk culture of Barclays.

See Risk Governance and Assigning Responsibilities below.

Risk appetite and the 'tone from the top'

Communicating and enforcing risk appetite in all businesses creates a common understanding and fosters debate around what types of risks are acceptable, and what levels are appropriate at business and Group level.

To develop a consistently strong risk culture across the Group, Barclays has communicated clear statements as to the Group risk appetite for all risk types and further embedded adherence to Group-wide appetite into all businesses. In particular, risk appetite:

- Articulates the types and level of risk we are willing to take and why, to enable specific risk taking activities. It also specifies those risks we seek to avoid and why, to constrain specific risk taking activities;
- It will be embedded within key decision making processes including business planning, mergers and acquisitions, new product approvals and business change initiatives;
- It provides for performance management and disciplinary consequences in cases of breach; and
- Ultimately owned by the Group CEO, who is responsible for leading, managing and organising executive management to achieve execution of the Barclays strategy and business plans in line with risk appetite.

See Risk Appetite on page 110 for more information.

Supporting colleagues to manage risk – in the right way

By supporting colleagues to manage risk in the right way, the Group seeks to ensure that all risk managers share the Barclays values and a common understanding of the role that risk management plays in promoting them:

- Risk management capability and ability to act in a risk aware manner forms part of the assessment process for all new and promotion candidates globally;
- Management of risk and control is assessed as part of the annual performance appraisal process for all colleagues globally. Positive risk management behaviours will be rewarded;
- The Being Barclays Global Induction programme supports new colleagues in understanding the importance of risk to how Barclays does business and the link to the Barclays values; and
- Leadership master classes cover the building, sustaining and supporting a trustworthy organisation and are offered to colleagues globally.

Risk Governance and Assigning Responsibilities

Responsibility for risk management resides at all levels of the Group, from the Board and the Executive Committee down through the organisation to each business manager and risk specialist. Barclays distributes these responsibilities so that risk/return decisions are: taken at the most appropriate level; as close as possible to the business; and, subject to robust and effective review and challenge. The responsibilities for effective review and challenges reside with senior managers, risk oversight committees, the independent Group Risk function, the Board Financial Risk Committee (BFRC), Board Conduct, Reputation and Operational Risk Committee (BCROR), Board Enterprise Wide Risk Committee (BEWRC) and, ultimately, the Board.

As part of the Transform programme, the Group has introduced the Enterprise Risk Management Framework (ERMF) which sets out standard group-wide governance arrangements. It also sets out the roles and responsibilities of all employees with respect to risk management, including the Chief Risk Officer and the Chief Executive Officer. The ERMF is a key deliverable of the programme and sets out a comprehensive and effective approach for the management of all risks at Barclays and supports the step change in risk management and control including:

- Sustainable and consistent implementation of the three lines of defence (see three lines of defence below);
- Further improvements to the management of risks including increased focus on conduct and reputational risks;
- Consistent application of Barclays risk appetite across all Principal Risks; and,
- Streamlining and simplification of the policy hierarchy.

The ERMF is intended to be widely read and to set out a philosophy and approach that is applicable to the whole bank, all colleagues and to all types of risk. It also sets out specific requirements for key individuals, including the Chief Risk Officer and Group Chief Executive, to undertake and the overall governance framework that will oversee its effective operation.

The ERMF sets out the activities, tools, techniques and organisational arrangements to ensure that all material risks are identified and understood, and that appropriate responses are in place to protect the Group and prevent detriment to its customers, colleagues or community, enabling the Bank to meet its goals, and enhance our ability to respond to new opportunities.

Note

a An independent review by Anthony Salz, commissioned by the Board.

Barclays' approach to managing risks >

Risk management strategy, governance and risk culture continued

The ERMF includes those risks incurred by Barclays that are foreseeable, continuous, and material enough to merit establishing specific bank-wide control frameworks. These are known as Key Risks and are grouped into six Principal Risks. Conduct and reputation risks were reclassified as Principal Risks in 2013. See Principal Risks on page 108 for more information.

A clear and consistent control framework entails specific responsibilities. As a result, not only has the definition of the three lines of defence been clarified (see three lines of defence below) but its scope has been extended to all businesses and functions. This creates the proper context for setting standards and establishing the right practices throughout the bank. See Risk Culture on pages 102 to 103 for more information.

Three lines of defence

The three lines of defence operating model enables Barclays to separate risk management activities between those parties that:

1. Own and take risk, and implement controls (first line);
2. Oversee and challenge the first line, provide second line risk management activity and support controls (second line); and
3. Provide assurance that the E-R-M process is fit for purpose, and that it is being carried out as intended (third line).

The Enterprise Risk Management process is the 'defence' and organising businesses and functions into three 'lines' enhances the E-R-M process by formalising independence and challenge, whilst still promoting collaboration and the flow of information between all areas:

First Line: Own and take risk, and implement controls

First line activities are characterised by:

- Ownership of and direct responsibility for Barclays' returns or elements of Barclays' P&L; or
- Ownership of major operations, systems and processes fundamental to the operation of the bank; or
- Direct linkage of objective setting, performance assessment and reward to P&L performance.

With respect to risk management the first line responsibilities include:

- Taking primary accountability for risk identification, ownership, management and control (including performance of portfolios, trading positions, operational risks, etc.) within approved mandate, as documented under the Key Risk Control Frameworks, including embedding a supportive risk culture;
- Collaborating with second line on implementing and improving risk management processes and controls;
- Monitoring the effectiveness of risk controls and the risk profile compared to the approved risk appetite; and
- Maintaining an effective control environment across all risks, processes and operations arising from the business, including implementing standards to meet Group policies.

Second Line: Oversee and challenge the first line, provide second line risk management activity and support controls

Second line activities are characterised by:

- Oversight, monitoring and challenge of the first line of defence activities;
- Design, ownership or operation of Key Risk Control Frameworks impacting the activities of the first line of defence;
- Operation of certain second line risk management activities; and
- No direct linkage of objective setting, performance assessment and reward to revenue (measures related to mitigation of losses and balancing risk and reward are permissible).

With respect to risk management the second line of defence responsibilities include:

- Defining the Enterprise Risk Management Framework;
- Establishing the control environments for the Key Risks, including Key Risk Control Frameworks, policies, and standards;
- Defining delegated discretions and set limits within the control frameworks to empower risk taking by the first line;
- Assisting in the direction of the portfolio to achieve performance against risk appetite;
- May define and operate approval processes for certain decisions within the second line to protect the Bank from material risks;
- Communicating, educating and advising the first line on their understanding of the risk framework and its requirements;
- Collaborating with the first line to support business growth and drive an appropriate balance between risk and reward without diminishing the independence from the first line; and
- Reporting on the effectiveness of the risk and control environment to executive management and Board committees.

Third line: Provide assurance that the E-R-M process is fit for purpose, and that it is being carried out as intended

Third line activities are characterised by:

- Providing independent and timely assurance to the Board and Executive Management over the effectiveness of governance, risk management and control.

With respect to risk management the third line of defence responsibilities include:

- Assessing the effectiveness of risk management and risk mitigation in the context of the current and expected business environment; and
- Acting independently and objectively, without taking responsibility for the operations of the bank or the definition of the Enterprise Risk Management Framework and Group policies.

Governance

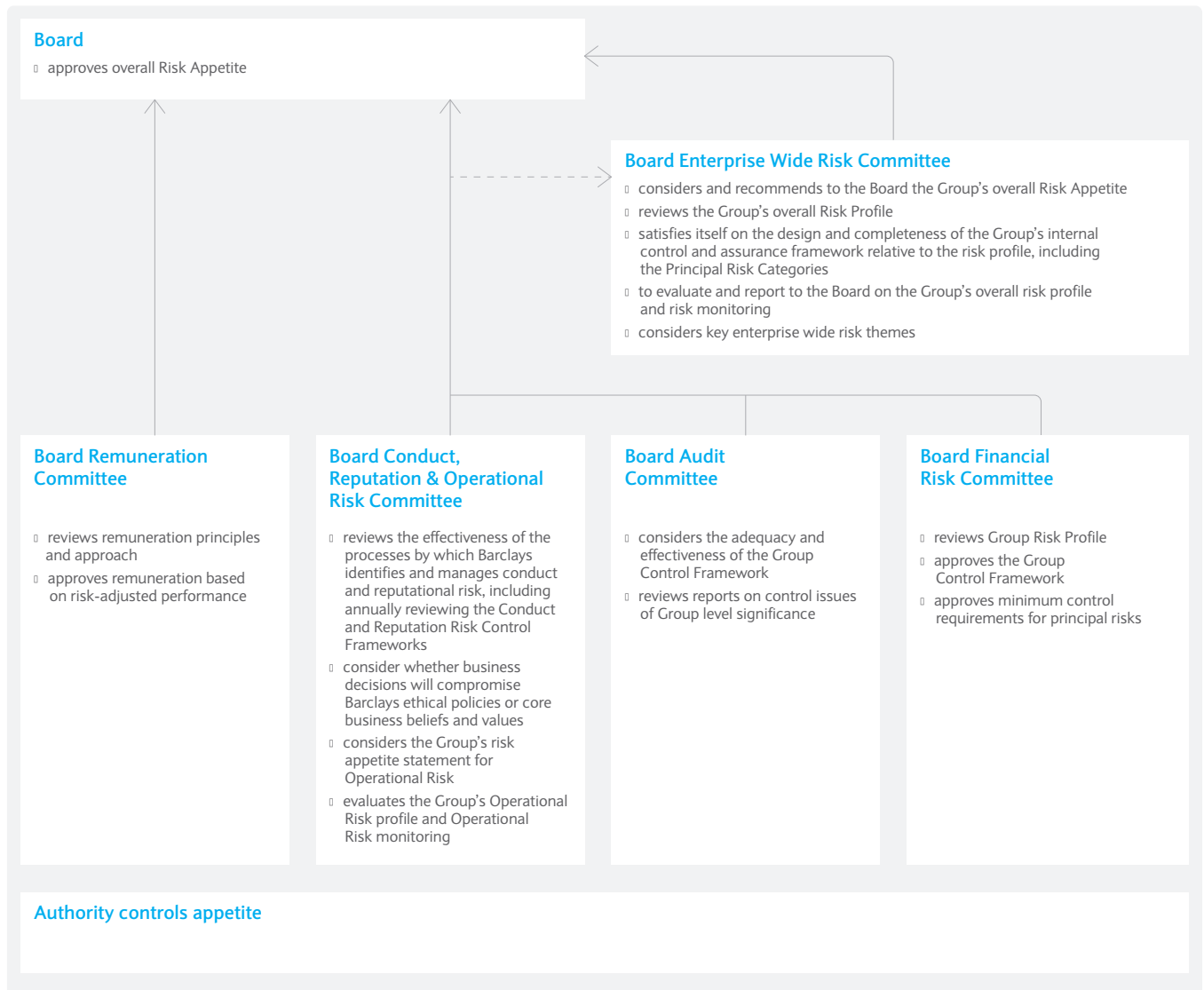
Governance Structure

Risk exists when the outcome of taking a particular decision or course of action is uncertain and could potentially impact whether, or how well, we deliver on our objectives.

Barclays faces risks throughout its business, every day, in everything it does. Some risks we choose to take after appropriate consideration – like lending money to a customer. Other risks may arise from unintended consequences of internal actions, for example an IT system failure or poor sales practices. Finally, some risks are the result of events outside the Bank but which impact our business – such as major exposure through trading or lending to a market counterparty which later fails.

All employees must play their part in the Bank's risk management, regardless of position, function or location, and are required to be familiar with risk management policies that are relevant to their activities, know how to escalate actual or potential risk issues, and have a role appropriate level of awareness of the Enterprise Risk Management Framework, risk management process and governance arrangements.

Board Oversight



Barclays' approach to managing risks >

Risk management strategy, governance and risk culture continued

There are four key Board level committees which review and monitor risk across the Group. These are: the Board, the Board Enterprise Wide Risk Committee, the Board Financial Risk Committee and the Board Conduct, Reputation and Operational Risk Committee.

The Board

The Board (Board of Directors of Barclays PLC) is responsible for approving risk appetite (see page 110), which is the level of risk the Group chooses to take in pursuit of its business objectives. The Chief Risk Officer regularly presents a report to the Board summarising developments in the risk environment and performance trends in the key portfolios. The board oversees the management of the most significant risks through the regular review of risk exposures and related key controls. Executive management responsibilities relating to this are set via the Group's ERMF.

The Board Enterprise Wide Risk Committee (BEWRC)

The BEWRC was introduced in 2013 and is a committee of the Board, from which it derives its authority and to which it regularly reports. The principal purpose of the Committee is to review, on behalf of the Board, management's recommendations on risk, in particular:

- Consider and recommend to the Board the Group's overall risk appetite;
- Review, on behalf of the Board, the Group's overall Risk Profile; and
- Satisfy itself on the design and completeness of the Group's internal control and assurance framework relative to the risk profile, including the Principal Risk Categories.

BEWRC membership comprises the Group Chairman and Chairmen of the Board Audit Committee, Board Conduct, Reputation and Operational Risk Committee, Board Financial Risk Committee and Board Remuneration Committee. The Group CEO, Group CRO, Group Finance Director, Head of Compliance, General Counsel and Chief Internal Auditor are mandatory attendees.

The Board Financial Risk Committee (BFRC)

BFRC monitors the Group's risk profile against the agreed appetite. Where actual performance differs from expectations, the actions being taken by management are reviewed to ensure that the BFRC is comfortable with them. After each meeting, the Chair of the BFRC prepares a report for the next meeting of the Board. Barclays first established a separate BFRC in 1999 and all members are non-executive directors. The Finance Director and the Chief Risk Officer attend each meeting as a matter of course.

The BFRC receives regular and comprehensive reports on risk methodologies and the Group's risk profile including the key 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 Chief Risk Officer or senior risk managers in the businesses. The Chair of the Committee prepares a statement each year on its activities (see the BFRC Chairman's report on pages 70 to 72 of the 2013 Annual Report).

The Board Conduct, Reputation and Operational Risk Committee (BCROR)

The BCROR was created in 2013 in order to strengthen the Board level governance over conduct risk and reputation matters. It reviews the effectiveness of the processes by which Barclays identifies and manages conduct and reputational risk and considers whether business decisions will compromise Barclays' ethical policies or core business beliefs and values. It also considers the Group's risk appetite statement for operational risk and evaluates the Group's operational risk profile and operational risk monitoring.

In addition, the Board Audit and Board Remuneration Committees receive regular reports on risk to assist them in the undertaking of their duties. See the BCROR Chairman's Report on pages 73 to 74 of the 2013 Annual Report for additional details of its membership and activities of the BCROR.

The Board Audit Committee (BAC)

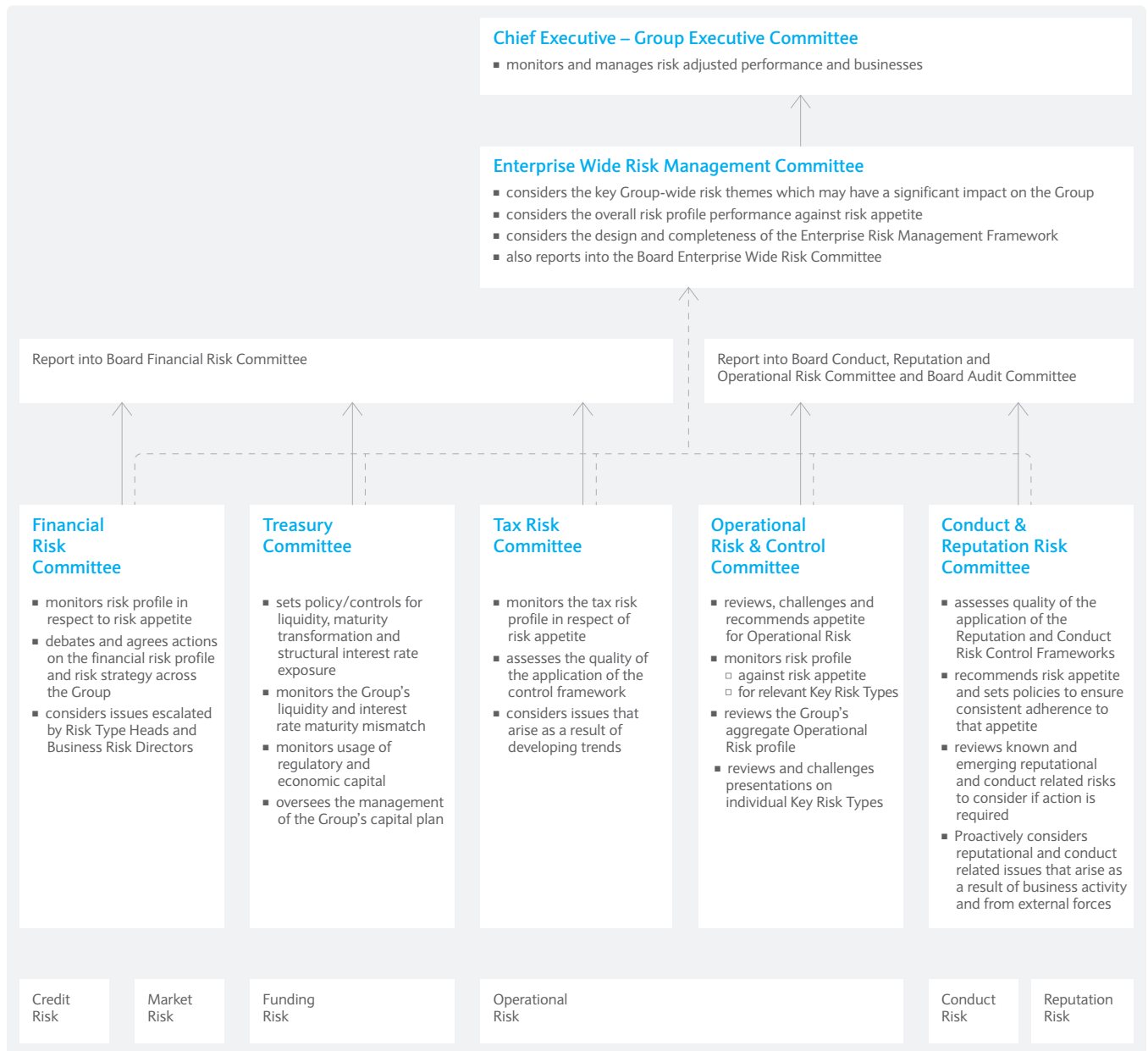
The BAC receives quarterly reports on control issues of significance and a half-yearly review of the adequacy of impairment allowances, which it reviews relative to the risk inherent in the portfolios, the business environment, the Group's policies and methodologies and the performance trends of peer banks. The Chair of the BAC also sits on the BFRC. See the BAC Chairman's Report on pages 62 to 67 of the 2013 Annual Report for additional details on the membership and activities of the BAC.

The Board Remuneration Committee (BRC)

The BRC receives a detailed report on risk management performance from the BFRC which is considered in the setting of performance objectives in the context of incentive packages. See the Remuneration Report on pages 89 to 125 of the 2013 Annual Report for additional details on membership and activities of the Board Remuneration Committee.

Summaries of the relevant business, professional and risk management experience of the Directors of the Board are given in the Board of Directors section on pages 83 to 85 of the 2013 Annual Report. The terms of reference for each of the principal Board Committees are available from the Corporate Governance section at: <http://group.barclays.com/about-barclays/about-us#corporate-governance>.

Reporting and Control



The launch of the Transform programme and subsequent introduction of the ERMF has introduced a more integrated 'One Risk' approach to how the Group manages risk, including governance, risk appetite, processes, and the effectiveness of its controls, together with leveraging colleague development opportunities.

During its day-to-day operations the Group faces a number of risks, which may be: i) assessed and considered appropriate (e.g. granting a loan to a customer); ii) as a result of unintended consequences of internal actions (e.g. IT system failure); or (iii) as a result of events outside the Group's control but which impacts our business (e.g. financial disruption in a region in which the Group operates).

The Group's approach to risk taking is structured, systematic and comprehensive, built into the decision making as objectives and aligned to the Evaluate, Respond and Monitor (E-R-M) process as defined in the section 'Barclays Risk Management Strategy'.

The Enterprise Wide Risk Management Committee (EWRMC) was created in 2013 and was established by, and derives its authority from, the Group Chief Risk Officer (CRO). It supports the CRO in the provision of oversight and challenge of the systems and controls in respect of risk management, particularly:

- Review, challenge and recommend risk appetite;
- Monitor risk profile against risk appetite; and
- Review the design and completeness of the ERMF and Principal Risk categories.

EWRMC membership includes the Group CRO, Group Chief Executive Officer (CEO), Group Finance Director, Group General Counsel, and Head of Compliance.

Barclays' approach to managing risks >

Risk management strategy, governance and risk culture continued

The CRO is a member of the Executive Committee and has overall day-to-day accountability for risk management under delegated authority from the CEO. While the CEO is accountable for proposing a risk appetite that underpins the strategic plan to the Board for approval, the CRO is responsible for providing oversight, advice and challenge to the CEO, and providing a recommendation to the Board. Risk appetite therefore sets the 'tone from the top' and provides a basis for ongoing dialogue between management and Board level around Barclays' current and evolving risk profile.

The CRO manages the independent Group Risk function and chairs the Financial Risk Committee (FRC) and the Operational Risk and Control Committee (ORCC), which monitor the Group's financial and non-financial risk profile relative to established risk appetite. Reporting to the CRO, and working in the Group Risk function, are risk type heads for retail credit risk, wholesale credit risk, market risk, operational risk and fraud risk. The risk type heads are responsible for establishing a Group-wide framework for oversight of the relevant risks and controls. The risk type teams liaise with each business as part of the monitoring and management processes.

In addition, each business has an embedded risk management function, headed by a Business Chief Risk Officer (BCRO). BCROs and their teams are responsible for assisting business heads in the identification and management of their business risk profiles and for implementing appropriate controls. These teams also assist Group Risk in the formulation of Group policies and their implementation across the businesses. The business risk directors report jointly to their respective business heads and to the CRO.

The risk type heads within the Group Risk function and the BCROs within the businesses report to the Chief Risk Officer and are members of the FRC or ORCC as appropriate.

During 2013 a Risk Executive Committee was created, which is responsible for the effectiveness and efficiency of risk management and embedding a strong risk culture, approval of the Group's risk governance framework, and agreement and endorsement of the overall infrastructure strategy for the risk function. It is also the senior decision making forum for the risk function excluding matters relating to the risk profile. It is chaired by the CRO with a membership comprising senior risk management from the risk centre and the businesses.

The CEO must consult the Chairman of the BFRC in respect of the Chief Risk Officer's performance appraisal and compensation as well as all appointments to or departures from the role.

The Group Treasurer heads the Group Treasury function and chairs the Treasury Committee which:

- Manages the Group's liquidity, maturity transformation and structural interest rate exposure through the setting of policies and controls;
- Monitors the Group's liquidity and interest rate maturity mismatch;
- Monitors usage of regulatory and economic capital; and
- Has oversight of the management of the Group's capital plan.

The Head of Compliance chairs the Conduct and Reputation Committee which assesses quality of the application of the Reputation and Conduct Risk Control Frameworks. It also recommends risk appetite, sets policies to ensure consistent adherence to that appetite, and reviews known and emerging reputational and conduct related risks to consider if action is required.

Principal Risks

Risk management responsibilities are laid out in the ERMF, which covers the categories of risk in which Barclays has its most significant actual or potential risk exposures.

The ERMF:

- Creates clear ownership and accountability;
- Ensures the Group's most significant risk exposures are understood and managed in accordance with agreed risk appetite (for financial risks) and risk tolerances (for non-financial risks); and
- Ensures regular reporting of both risk exposures and the operating effectiveness of controls.

A Principal Risk comprises individual Key Risk Types to allow for more granular analysis of the risk associated within it. The six Principal Risks are: i) Credit; ii) Market; iii) Funding; iv) Operational; v) Conduct; and vi) Reputation.

Each Key Risk is owned by a senior individual known as the Group Key Risk Officer who is responsible for developing a risk appetite statement and overseeing and managing the risk in line with the ERMF. This includes the documentation, communication and maintenance of a risk control framework which makes clear, for every business across the firm, the mandated control requirements in managing exposures to that Key Risk. These control requirements are given further specification, according to the business or risk type, to provide a complete and appropriate system of internal control.

Business function heads are responsible for obtaining ongoing assurance that the key controls they have put in place to manage the risks to their business objectives are operating effectively. Six-monthly reviews support the regulatory requirement for Barclays to make an annual statement about its system of internal controls.

Group Key Risk Officers report their assessments of the risk exposure and control effectiveness to Group-level oversight committees and their assessments form the basis of the reports that go to the:

BFRC:

- Financial Risk Committee has oversight of credit and market risks; and
- Treasury Committee has oversight of funding Risk.

and, BCRORC:

- Operational Risk and Control Committee has oversight of all operational risk types, with the exception of tax risk, which is primarily overseen by the Tax Risk Committee; and
- Conduct and Reputation Risk Committee has oversight of the conduct and reputation Risks.

Each Group Key Risk Officer also undertakes an annual programme of risk based conformance reviews.

Conformance and assurance

Conformance and assurance is undertaken to assess the control environment:

Conformance: Activities undertaken to check the degree to which defined processes are being followed.

- Conformance testing – is a planned, systematic and documented programme of checking, that has the objective of providing evidence that controls have been operated in accordance with documented process. Testing results provide management with a view of the effectiveness of the control environment supporting their operations.
- Conformance review – is a planned, risk based programme of activity to assess the quality of conformance testing. Conformance review is undertaken by individuals who are independent of the management team running the operations. Review results enable management to assess how much assurance they can place on the results of conformance testing. Conformance testing and conformance review may also identify opportunities for improvement to policies and standards.

Assurance: Undertaken to independently assess the overall enterprise risk management framework, which includes testing specific elements of the control environment documented in standards and checking that conformance activities are reliable, to provide the Board confidence in the risk and control framework.

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 high risks and in so doing enhancing the controls culture within the Group. The BAC reviews and approves Internal Audit's plans and resources, and evaluates the effectiveness of Internal Audit. An assessment by external advisers is also carried out periodically.

The Executive Models Committee (EMC) is chaired by the Chief Risk Officer. The EMC, reports into the Enterprise Wide Risk Management Committee and fulfils the specific requirement of approving the Group's most material (A*) models, as required by the PRA. The EMC receives submissions from the businesses responsible for the A* models and reviews and approves A* models and Post Model Adjustments (PMAs) related to those models.

The Disclosure Committee reviews and evaluates the Group's disclosure controls and procedures and has responsibility for considering the materiality of information and determining disclosure obligations on a timely basis. It is chaired by the Group Finance Director. It reports into the Group Executive Committee and the BAC.

Risk management in the setting of strategy

The planning cycle is centred on the medium term planning (MTP) process, performed once a year. This embeds the Group's objectives into detailed business plans which take account the likely business and macroeconomic environment. The risk functions at Group and business levels are heavily involved in this process.

The planning cycle



In addition to supporting transaction decisions, the measurement and control of credit, market, operational and other risks have considerable influence on Barclays' strategy. The Board is solely responsible for approving the MTP, the associated risk appetite statement, and the capital plans. As such, the business plans of Barclays must incur a level of risk that falls within the Board's tolerance, or be modified accordingly. The BRFC has been in place since 1999 and is devoted to review the firm's risk and make appropriate recommendations to the Board. For details of the activities of the Board and the BRFC in 2013 see pages 103 to 106 and the BRFC Chairman's report on pages 70 to 72 of the 2013 Annual Report.

The risk appetite and the Group-wide stress testing processes, described below, are closely linked to the MTP process and also support strategic planning and capital adequacy. The risk appetite process ensures that senior management and the Board understand the MTP's sensitivities to key risk types, and includes a set of M&S limits to ensure the Group stays within appetite. Stress testing informs management on the impact to the business of detailed scenarios. Integral to the Group-wide stress testing process is to explicitly identify a set of actions that management would take to mitigate the impact of a stress.

One of the main objectives of managing risk is to ensure that Barclays achieves an adequate balance between capital requirements and resources. The capital planning cycle is fully integrated within strategic planning.

Barclays' approach to managing risks >

Risk management strategy, governance and risk culture continued

Medium-Term Planning (MTP) process

The MTP process, performed annually, requires each business to present its plans for business performance over the coming five years (with a key focus on the first three years of the plan). The MTP details the businesses strategy, the portfolio composition and the expected risk trends. Achieving the planned performance in each business is dependent upon the ability of the business to manage its risks. It is an iterative process featuring weekly reviews at the most senior levels as the plan is updated until final agreement. The output includes a detailed statement of the Group's strategy over the medium-term, as well as detailed financial projections.

Risk managers support the MTP by providing robust review and challenge of the business plans to ensure that the financial projections are internally consistent; value creating; achievable given risk management capabilities (e.g. supported by appropriate risk infrastructure) and that they present a suitable balance between risk and reward. This culminates in the risk review meetings in which the CRO and senior management in each of our businesses discuss the findings from the risk reviews, and changes to the business plans are mandated as necessary.

The business plans are prepared with reference to a consistent set of economic assumptions which are agreed by senior management and reviewed within Group Risk to ensure that they appropriately reflect emerging risk trends. They are used as baseline scenarios in the stress testing and risk appetite processes.

The output from the business plan forms the basis of all strategic processes. In particular, the plans comprise projections of capital resources and requirements given profit generation, dividend policy and capital issuance. Risk variables are also considered, most importantly in the forecasting of the Group's impairment charge, on the assessment of the business capital requirements going forward and in sensitivity analyses of the plans (which include risk appetite and stress testing).

Risk appetite

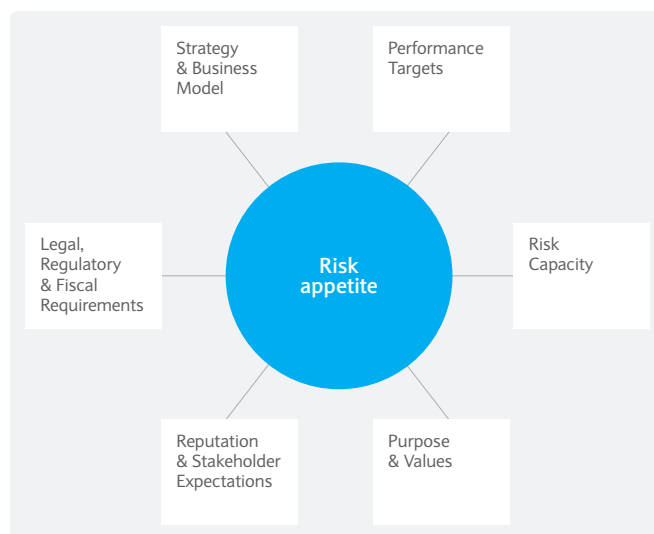
Risk appetite is defined as the level of risk that Barclays is prepared to accept whilst pursuing its business strategy, recognising a range of possible outcomes as business plans are implemented.

Risk appetite sets the 'tone from the top' and provides a basis for ongoing dialogue between management and Board with respect to Barclays' current and evolving risk profile, allowing strategic and financial decisions to be made on an informed basis.

At Barclays, the risk appetite framework is intended to achieve the following objectives:

- Articulate the risks the Group is willing to take and why, to enable specific risk taking activities; and articulate those risks to avoid and why, to constrain specific risk taking activities;
- Consider all Principal and Key Risks both individually and, where appropriate, in aggregate;
- Consistently communicate the acceptable level of risk for different risk types; this may be expressed in financial or non-financial terms, but must enable measurement and effective monitoring;
- Describe agreed parameters for Barclays' performance under varying levels of financial stress with respect to:
 - Profitability, loss and return metrics
 - The ability to continue to pay a dividend; and
- Be embedded in key decision-making processes including mergers and acquisitions, new product approvals and business change initiatives.

Unapproved breaches of risk appetite and/or limits will result in performance management and disciplinary consequences.



Setting risk appetite

In this regard, the Group CEO is responsible for:

- Leading the development of the Barclays strategy and business plans that align to our Goal, Purpose and Values and includes a risk appetite and risk profile proposal for Board approval;
- Leading, managing and organising executive management to achieve execution of the Barclays strategy and business plans in line with the Board approved Purpose, Values, Code of Conduct ('the Barclays Way') and risk appetite. This includes assessing risk holistically, ensuring the soundness of the financial position of Barclays, and that due consideration is given to the impact of Barclays on society, customers and clients, colleagues and the wider financial system;
- Barclays' performance including financial and operational activities, risk profile (current and outlook) compared to approved risk appetite, and compliance with all laws, regulations and the Barclays Operating Framework; and
- Providing accurate, transparent and timely reporting to the Board on Barclays' performance against plan, and include the risk profile (current and outlook) compared to risk appetite under normal and stressed scenarios.

The Group CRO is responsible for:

- Providing oversight, advice and challenge to the CEO with respect to the strategic plan;
- Management of the risk appetite setting processes;
- Recommending risk appetite to the Board;
- Ensuring the Board receive regular management information that compares the risk appetite set for Barclays and the businesses by risk type and in aggregate where appropriate; and
- Developing, operating and maintaining a comprehensive risk management framework for Barclays that ensures the business performs in line with the approved risk appetite.

The Board review and approve risk appetite in aggregate and for all individual Principal Risks.

The Risk function is responsible for implementation, operation and monitoring of the Group's approach to risk appetite.

Risk appetite is formally reviewed on an annual basis in conjunction with the Medium-Term Planning (MTP) process.

Barclays' approach to managing risks >

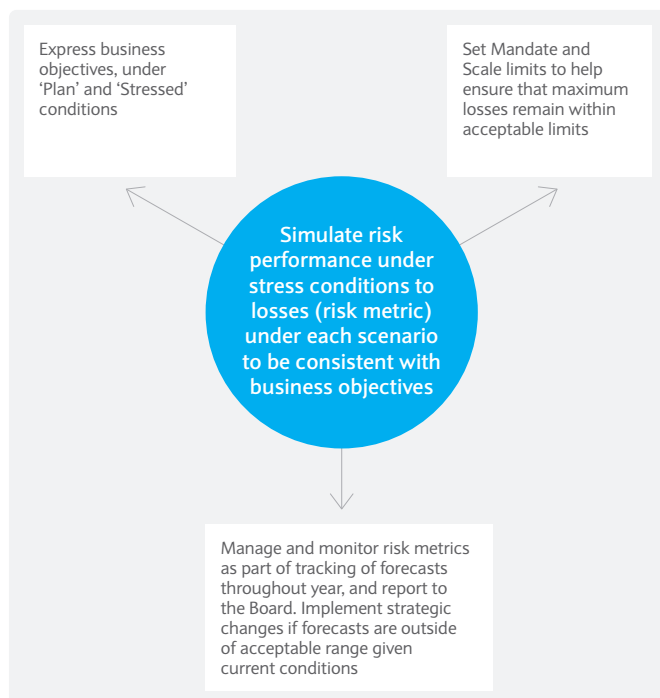
Risk management strategy, governance and risk culture continued

Group-wide stress tests are an integral part of the annual MTP process and ensure that the Group's financial position and risk profile provide sufficient resilience to withstand the impact of severe economic stress. A key objective of the Group-wide stress test process is to identify and document management actions that would be taken to mitigate the impact of stress. The bottom-up process ensures all levels of management are informed of the impact of the stress scenarios and are aware of appropriate management actions to be taken when a stress event occurs. The approach also includes reverse stress testing techniques which aim to identify the circumstances under which our business model would become no longer viable, leading to a significant change in business strategy. See Stress testing on page 112 for more information.

Risk appetite is approved and disseminated across Key Risks and businesses, including the use of 'M&S' limits to enable and control specific activities that have material concentration risk implications for the Group. These limits also help avoid large one-off losses that are specific to Barclays and outside stakeholder expectations.

Barclays has run a risk appetite process since 2004 and this process comprises 'Financial Volatility', which is the level of potential deviation from expected financial performance Barclays is prepared to sustain, and 'Mandate and Scale', which ensures the Group stays within appetite. The strategy and business activities are reflected in key performance metrics, which are dependent in large part on risk performance.

Simulate risk



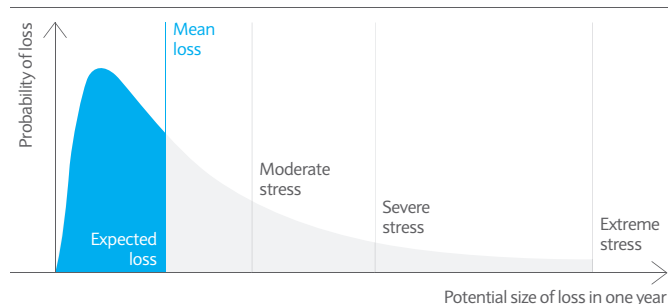
Financial volatility

Financial volatility is defined as the level of potential deviation from expected financial performance that Barclays is prepared to sustain at relevant points on the risk profile. When setting appetite, management and the Board articulate the Group's strategy and summarise objectives in terms of key financial metrics. The Group's risk profile is assessed via a 'bottom-up' analysis of the Group's business plans to establish the volatility of the key metrics. If the projections entail too high a level of risk (i.e. breach the top-down financial objectives at the through-the-cycle, moderate or severe level), management will challenge each area to re-balance the risk profile to bring the bottom-up risk appetite back within top-down appetite. Performance against risk appetite usage is measured and reported to the Executive Committee and the Board regularly throughout the year. Our top-down appetite is quantified through an array of financial performance and capital metrics which are reviewed by the Board on an annual basis. For 2013, the strategic metrics in the table below were set at three levels: 'through-the-cycle', and stressed 'one in seven' and 'one in twenty-five', which are defined as:

- Through-the-cycle: the average losses based on measurements over many years;
- 1 in 7 (moderate) loss: the worst level of losses out of a random sample of 7 years; and
- 1 in 25 (severe) loss: the worst level of losses out of a random sample of 25 years.

These scenarios are defined through a level of probability of occurrence rather than through a specific set of economic variables like in stress tests.

Risk appetite concepts (diagram not to scale)



The potentially larger but increasingly less likely levels of loss are illustrated in the risk appetite concepts chart above. Since the level of loss at any given probability is dependent on the portfolio of exposures in each business, the statistical measurement for each key risk category gives the Group clearer sight and better control of risk taking throughout the enterprise. Specifically, this framework enables it to:

- Improve management confidence and debate regarding the Group's risk profile;
- Re-balance the risk profile of the MTP where breaches are indicated, thereby achieving a superior risk-return profile;
- Identify unused risk capacity, and thus highlight the need to identify further profitable opportunities; and
- Improve executive management control and co-ordination of risk taking across businesses.

Measure relevant to strategy and risk	Link between strategy and risk profile
Profit before tax, Return on equity, Return on RWAs	Fundamental economic and business indicators, which best describes shareholder focus in terms of profitability and ability to use capital resources efficiently.
Loan loss rate (LLR)	Describes the credit risk profile and whether impairment is within appetite.
Core Tier 1 and leverage ratios	Monitors our capital adequacy in relation to capital plan.
Dividends	Measures the risks of being able to continue paying appropriate dividends.

In summary, the stress levels represent the risk tolerance of Barclays in terms of its key objectives. These objectives act as constraints on risk performance and imply maximum levels of acceptable losses that are tracked quarterly and reported to the Board. Any breaches must be approved and remedial actions mandated.

Mandate and Scale

The second element to the setting of risk appetite in Barclays is an extensive system of Mandate and Scale limits, which is a risk management approach that seeks to formally review and control business activities to ensure that they are within Barclays' mandate (i.e. aligned with expectations), and are of an appropriate scale (relative to the risk and reward of the underlying activities). Barclays achieves this by using limits and triggers to avoid concentrations which would be out of line with expectations, and which may lead to unexpected losses of a scale that would be detrimental to the stability of the relevant business line or the Group. These limits are set by the independent risk function, formally monitored each month and subject to Board-level oversight.

For example, in our commercial property finance and construction portfolios, a comprehensive series of limits are in place to control exposure within each business and geographic sector. To ensure that limits are aligned 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.

Barclays uses the Mandate and Scale framework to:

- Limit concentration risk;
- Keep business activities within Group and individual business mandate;
- Ensure activities remain of an appropriate scale relative to the underlying risk and reward; and
- Ensure risk taking is supported by appropriate expertise and capabilities.

As well as Group-level Mandate & Scale limits, further limits are set by risk managers within each business unit, covering particular portfolios.

Interaction of risk appetite with business strategy

The strategy and business activities are reflected in key performance metrics, which are dependent in large part on risk performance. Risk appetite, as described above, helps to ensure that the strategy is adaptable to various degrees of financial stress.

Each year, the MTP process ensures that appetite takes account of the strategy (detailed on page 110).

The Group risk profile developing in the plan is assessed in the financial volatility scenarios via a bottom-up process; this is then compared with the top-down view articulated via the key financial metrics described above. Any gap between the two views is challenged by management in order to re-balance the risk profile and bring the bottom-up risk appetite back within top-down appetite.

For further information on risk factors and the operating and business environment, refer to the risk factors section (see pages 133 to 141 of the 2013 Annual Report).

Stress testing

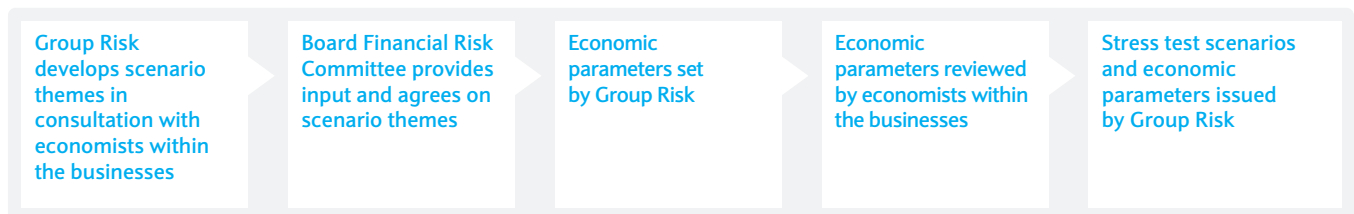
Group-wide stress tests are an integral part of the annual MTP process and annual review of risk appetite to ensure that the Group's financial position and risk profile provide sufficient resilience to withstand the impact of severe economic stress. The following diagram outlines the key steps in the Group-wide stress testing process, which are described below. Barclays also maintains recovery plans which consider actions to facilitate recovery from severe stress or an orderly resolution. These actions are additional to those included in the Group-wide stress testing process described in this section.



- **Scenario design and setting:** BFRC agrees the range of scenarios to be tested and the independent Group Risk function leads the process. Macroeconomic stress test scenarios are designed to be both severe and plausible, and relevant to our business. The following diagram summarises the process for designing and agreeing the

scenarios to be run. The process includes Group Risk consultation with economists in the businesses. This ensures relevance of scenarios to our businesses and a consistent interpretation of the scenarios across the Group.

Scenario design and setting



At the Group level, stress test scenarios capture a wide range of macroeconomic variables that are required to assess the impact of the stress scenario for each portfolio, and reflect the wide range of models used across the Group to assess the impact of the stress. This includes for example, GDP, unemployment, asset prices, foreign exchange rates and interest rates. Economic parameters are set using expert judgement and are calibrated using historical and quantitative analysis to ensure internal coherence and appropriate severity. In addition, our scenarios are tested against the PRA's stress test scenarios.

Examples of types of scenarios/themes run as Group-wide stress tests include:

- A global recession scenario capturing the wide range of businesses across Barclays;
- US-centred macroeconomic scenario; and
- A peripheral Eurozone stress as part of the reverse stress testing framework (see below).

- **Businesses prepare MTP/business plans:** each business prepares detailed business plans which are used as the baseline for running their stress test analysis. The MTP business plans are prepared at performance cell level across a detailed set of performance metrics covering income, impairment, balance sheet and RWA information (which is also reflected in the stress testing results) – see page 110 for further details on the MTP process. The stress testing results are used to inform MTP business plans, so there may be a number of iterations before the MTP business plans are finalised.
- **Businesses run stress testing models:** the stress testing process is detailed and comprehensive using bottom-up analysis performed by each of Barclays' businesses, covering detailed performance metrics as outlined above and results are produced for each performance cell. It includes all aspects of the Group's balance sheet across all risk types and is forward looking over a five year period. Our stress testing approach combines running statistical models with expert judgement to ensure the results accurately reflect the impact of the stress test economic scenario. An overview of our stress testing approach by Principal Risk is provided in the table below:

Principal Risk	Stress testing approach
Credit risk	<ul style="list-style-type: none"> ■ Credit risk impairments: For retail portfolios businesses use regression models to establish a relationship between arrears movements and key macroeconomic parameters, such as interest rates and unemployment, incorporating roll-rate analysis to estimate stressed levels of arrears by portfolio. In addition, combination of house price reductions and increased customer drawdowns for revolving facilities leads to higher loss given default (LGD) which also contributes 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 macroeconomic parameters such as GDP, inflation and interest rates. ■ 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. 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. ■ Credit risk weighted assets: The impact of the scenarios is calculated via a combination of business volumes and similar factors to impairment drivers above, as well as the regulatory calculation and the level of pro-cyclicality of underlying regulatory credit risk models.
Market risk	<ul style="list-style-type: none"> ■ Trading book losses: All market risk factors on the balance sheet are stressed using specific market risk shocks (and are used for the counterparty credit risk analysis, above). The severity of the shocks applied are dependent on the liquidity of the market under stress, e.g. illiquid or sticky positions are assumed to have a longer holding period than positions in liquid markets. ■ Pension fund: The funding position of pension funds are stressed, 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.
Funding risk	<ul style="list-style-type: none"> ■ The risk of a mismatch between assets and liabilities, leading to funding difficulties, is assessed. Businesses apply scenario variables to forecasts of customer loans and advances and deposits levels, taking into account management actions to mitigate the impact of the stress which may impact business volumes. The Group funding requirement under stress is then estimated and takes into account lower availability of funds in the market. ■ The analysis of funding risk also contributes to the estimate of stressed income and costs: <ul style="list-style-type: none"> □ Stress impact on non-interest income is primarily driven by lower projected business volumes and hence lower income from fees and commissions; □ 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; and □ The impact on costs is mainly driven by business volumes and management actions to partly offset profit reductions (due to impairment increases and decreases in income) such as headcount reductions and lower performance costs.
Operational risk, Conduct risk and Reputation risk	<ul style="list-style-type: none"> ■ These Principal Risks are generally not assessed as part of economic scenario assessments, as they are not directly linked to the economic scenario. Note that Operational risk, however, is included as part of the reverse stress testing framework that incorporates assessment of idiosyncratic operational risk events. <ul style="list-style-type: none"> □ Management of Operational risk is described on pages 415 to 417 of the 2013 Annual Report □ Management of Conduct risk is described on pages 228 to 229 of the 2013 Annual Report □ Management of Reputation risk is described on pages 226 to 227 of the 2013 Annual Report

- **Review and challenge:** the business' stress test methodologies and results are subject to a detailed review and challenge both within the businesses (including review and sign-off by business CROs) and by Head Office Functions. In particular, this includes detailed risk review of both the stressed estimates (e.g. impairments), and the methodology used to translate the economic scenario to stressed estimates. Businesses are required to document their stress test methodologies and results, including key assumptions made. The stress testing results are presented and discussed as part of the MTP risk reviews held between each business and Barclays CRO.
- **Results (pre- and post-business management actions):** a key objective of the Group-wide stress test process is to identify and document management actions that would be taken to mitigate the impact of stress. Businesses are required to report results both pre- and post-business management actions, such as cost reductions and increased collections activity to reduce impairments, and to document these actions. The bottom-up process ensures all levels of management are informed of the impact of the stress scenarios and are aware of appropriate management actions to be taken when a stress event occurs. For instance, during the recession of 2008-2010 a programme of work based on the stress management actions was implemented and directly overseen by the Group Executive Committee.

- **Capital plan including capital management actions:** the business' stress test results are aggregated to form a Group view of the impact of the stress, which are used by Barclays Treasury Capital Management to determine the stress impact on the Group capital plans. As part of this assessment, capital management actions such as reducing dividend payments or redeeming certain capital instruments may be considered. These are in addition to the business management actions included in business' stress testing results. Further management actions available in Barclays' recovery plan that are not included in the Group-wide stress testing results.
- **Committee presentations and approval of stress scenario results:** the stress test results are presented for review by the Executive Committee and BFRC, and are also shared with the Board.

The results of our H2 2013 internal Group-wide stress test exercise show that the Group's profit before tax remains positive under the modelled severe global stress scenario, with the Group remaining well capitalised above the required regulatory minimum level. The stress test results are also shared with the PRA, e.g. as part of our internal capital adequacy assessment process (ICAAP) submission.

Barclays' approach to managing risks >

Risk management strategy, governance and risk culture continued

Reverse stress testing

The Group-wide stress testing framework also includes reverse stress testing techniques which aim to identify the circumstances under which Barclays' business model would no longer be viable, leading to a significant change in business strategy. Examples include extreme macroeconomic downturn scenarios, such as a break-up of the Euro area, 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 fully integrated into our risk appetite framework. Reverse stress testing methodology includes identifying tail risks associated with specific low likelihood circumstances, and identifying appropriate mitigating actions. For example, the approach for managing Eurozone peripheral risks was informed by the results of the reverse stress testing assessment ran in 2010.

Business and risk type specific stress tests

Barclays also uses stress testing techniques at portfolio and product level 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 business, affordability thresholds incorporate stressed estimates of interest rates. In the Investment Bank, global scenario testing is used to gauge potential losses that could arise in conditions of extreme market stress. Stress testing is also conducted on positions in particular asset classes, including interest rates, commodities, equities, credit and foreign exchange.

Information on the Group's stress testing specifically relating to liquidity risk is set out in the funding risk – Liquidity section. Further information on market risk stress testing is provided in the market risk section.

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 weights under the internal ratings based approach of the Basel framework.

- Pages 117 to 127 cover the aspects of the Group's risk management framework specific to credit risk, including committees and the Group reporting structure.
- As 66% of our regulatory capital is for credit risk, we devote pages 118 to 127 to detailing how we approach the internal ratings models, and how the framework supports risk differentiation and management.

i Credit risk is the risk of suffering financial loss should any of the Group's customers, clients or market counterparties fail to fulfil their contractual obligations to the Group. The granting of credit is one of the Group's major sources of income and, as the most significant risk, the Group dedicates considerable resources to its control.

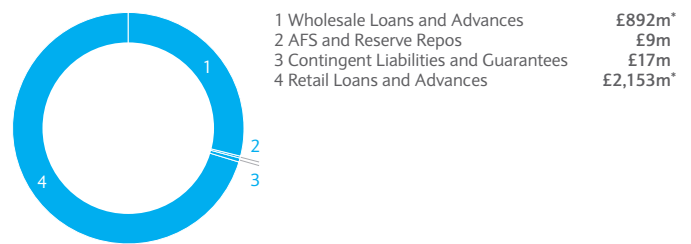
Overview

The credit risk that the Group faces arises mainly from wholesale and retail loans and advances together with the counterparty credit risk arising from derivative contracts entered into with clients. This is demonstrated by the impairment charge analysis chart. Other sources of credit risk arise from trading activities, including debt securities, settlement balances with market counterparties, available for sale assets and reverse repurchase loans.

Credit risk management objectives are to:

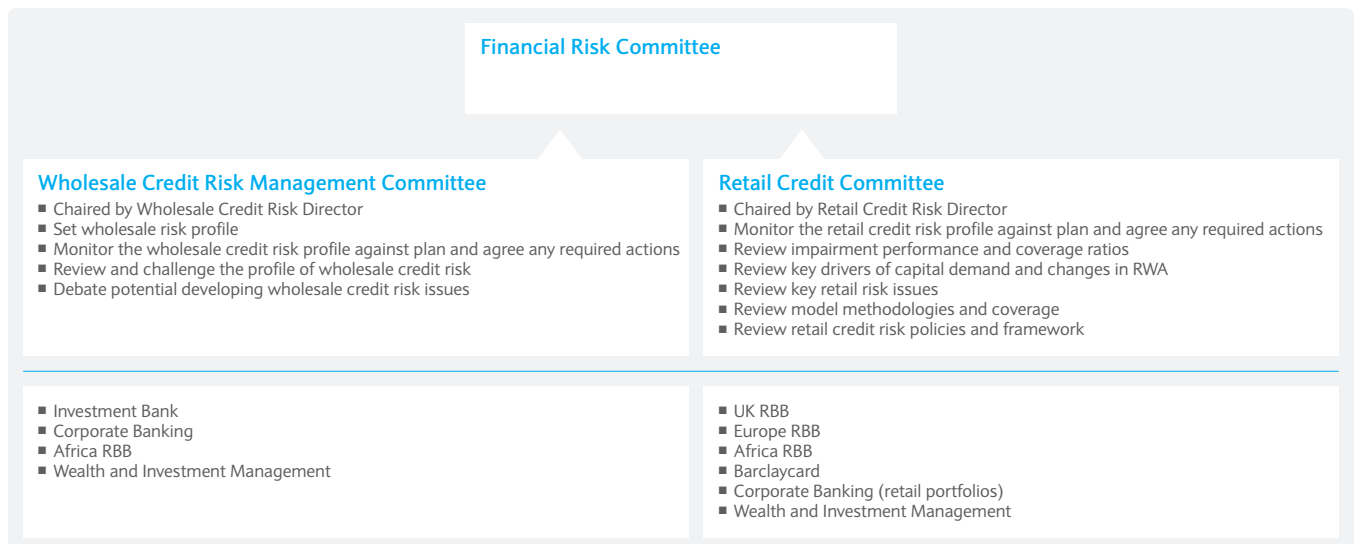
- Maintain a framework of controls to ensure credit risk-taking is based on sound credit risk management principles;
- Identify, assess and measure credit risk clearly and accurately across the Group and within each separate business, from the level of individual facilities up to the total portfolio;
- Control and plan credit risk-taking in line with external stakeholder expectations and avoiding undesirable concentrations;
- Monitor credit risk and adherence to agreed controls; and
- Ensure that risk-reward objectives are met.

Total credit impairment charge and other provisions (£3,071m)



*Excludes charges against contingent liabilities and guarantees

Organisation and structure



Barclays' approach to managing risks >

Management of credit risk and the internal ratings based approach continued

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 smaller in value and can be managed on a homogenous portfolio basis.

Barclays has structured the responsibilities of credit risk management so that decisions are taken as close as possible to the business, whilst ensuring robust review and challenge of performance, risk infrastructure and strategic plans. The credit risk management teams in each business are accountable to the business risk directors in those businesses who, in turn, report to the CRO and also to the heads of their businesses.

The responsibilities of the credit risk management teams in the businesses include: sanctioning new credit agreements; monitoring risk against limits and other parameters; ensuring all elements of post sanction fulfilment are completed in line with terms of the sanction; maintaining robust systems, data gathering, quality, storage and reporting methods for effective credit risk management; for wholesale portfolios performing effective turnaround and workout scenarios via dedicated restructuring and recoveries teams; and for retail portfolios maintaining robust collections and recovery processes/units.

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 entrusted with the higher levels of delegated authority. The largest credit exposures are approved at the Credit Committee which is managed by Central Risk. In the wholesale portfolios, credit risk managers are organised in sanctioning teams by geography, industry and/or product.

The role of the Central Risk function is to provide Group-wide direction, oversight and challenge of credit risk-taking. Central Risk sets the Credit Risk Control Framework, which provides a structure within which credit risk is managed together with supporting credit risk policies. Central Risk also provides technical support, review and validation of credit risk measurement models across the Group.

Reporting

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

- Measuring exposures and concentrations;
- Monitoring performance and asset quality;
- Monitoring for weaknesses in portfolios;
- Raising allowances for impairment and other credit provisions; and
- Returning assets to a performing status or writing off assets when the whole or part of a debt is considered irrecoverable.

Details on the above stages and credit management can be found on pages 393 to 397 of the Annual Report.

Internal ratings based (IRB) approach

This approach relies on the Group's internal models to derive risk weights. The IRB approach is divided into two alternative applications, advanced and foundation:

- **Advanced IRB (AIRB):** Barclays uses its own estimates of probability of default (PD), loss given default (LGD) and credit conversion factor to model a given risk exposure;
- **Foundation IRB:** Barclays applies its own PD as for Advanced, but it uses standard parameters for the LGD and the credit conversion factor. The foundation IRB approach is specifically designed for wholesale credit exposures. Hence retail, equity, securitisation positions and non-credit obligations asset exposures are treated under Standardised or AIRB.

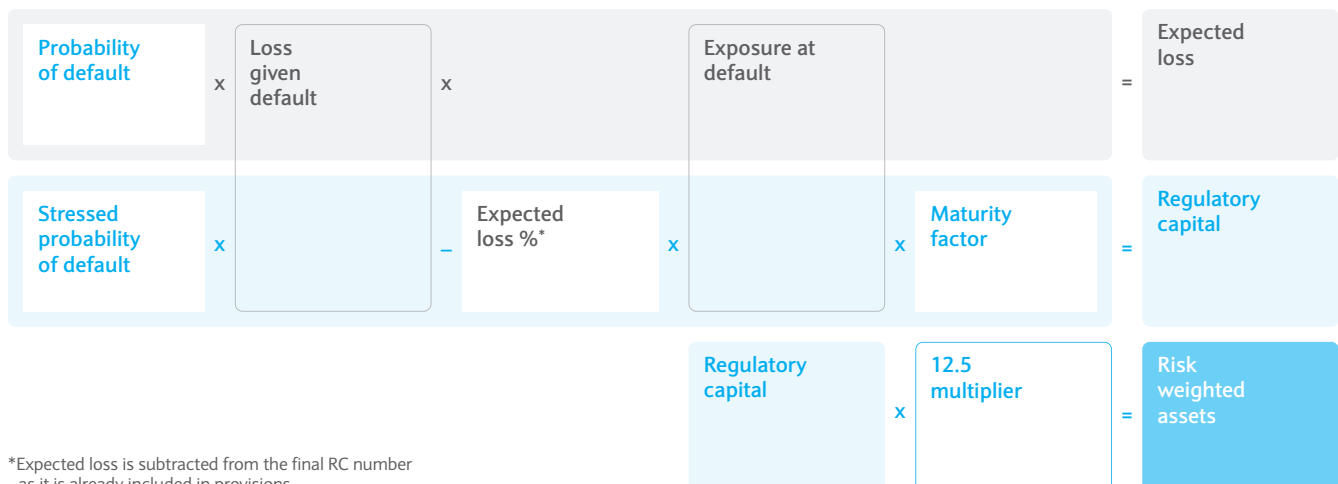
The IRB calculation for credit risk

The principal objective of credit risk measurement is to produce the most accurate possible quantitative assessment of the credit risk to which the Group is exposed, from the level of individual facilities up to the total portfolio. Integral to this is the calculation of internal ratings, which are used in many aspects of credit risk management and in the calculation of regulatory and economic capital. The key building blocks of this process are:

- Probability of default (PD);
- Exposure at default (EAD); and
- Loss given default (LGD).

See Table 3 on page 15 for a summary of the coverage of the IRB approach.

The building blocks of Expected Loss, Pillar 1 Regulatory Capital requirements and RWAs



*Expected loss is subtracted from the final RC number as it is already included in provisions

Each customer or facility is allocated an estimated PD, LGD and EAD, which is used in the credit rating system for a particular customer within each asset class:

To calculate **probability of default (PD)**, Barclays assesses the credit quality of borrowers and other counterparties and assigns them an internal risk rating. Barclays recognises the need for two different expressions of PD depending on the purpose for which it is used. For the purposes of calculating regulatory and economic capital, long-run average through-the-cycle (TTC) PDs are required for wholesale and retail secured products (see "Applications of internal ratings", below). However, for the purposes of pricing and existing customer management, PDs should represent the best estimate of probability of default given the current position in the credit cycle. Hence, point-in-time (PIT) PDs are also required. PIT PDs are also used for the calculation of capital on certain retail unsecured products. Each PD model outputs an estimate of default probability that is PIT or TTC. Bespoke conversion techniques, appropriate to the portfolio in question, are then applied to convert the model output to the appropriate PD estimate. In deriving the appropriate conversion, industry and location of the counterparty and an understanding of the current and long-term credit conditions are considered.

Should a customer default, some part of the exposure is usually recovered. The part that is not recovered, the actual loss, together with the economic costs associated with the recovery process, comprise the loss given default (LGD), which is expressed as a percentage of EAD. The Group estimates average LGD using historical information. The level of LGD depends principally on:

- the type of collateral (if any);
- the seniority or subordination of the exposure;
- the industry in which the customer operates (if a business);
- the length of time taken for the recovery process and the timing of all associated cash flows;
- the work out expense.

The outcome is also dependent on economic conditions that may determine, for example, the prices that can be realised for assets, whether a business can readily be refinanced or the availability of a repayment source for personal customers.

For the purposes of regulatory capital an adjustment is made to the modelled LGD to account for the increased losses experienced under downturn conditions, giving a downturn LGD.

Exposure at default (EAD) represents the expected level of usage of the credit facility should default occur. At the point of default, the customer exposure can vary from the current position due to the combined effects of additional drawings, repayment of principal and interest and fees. EAD parameters are all derived from internal estimates and are determined from internal historical behaviour. The lower bound of EAD for regulatory capital purposes is the current balance at calculation of EAD. For derivative instruments, exposure in the event of default is the estimated cost of replacing contracts where counterparties have incurred obligations that they have failed to satisfy.

Applications of internal ratings

The three components described – the PD, LGD and EAD – are building blocks used in a variety of applications that measure credit risk across the entire portfolio. These parameters can be calculated to represent different aspects of the credit cycle:

- PD estimates can be calculated on a TTC basis, reflecting the predicted default frequency in an average 12 month period across credit cycle, or on a PIT basis, reflecting the predicted default frequency in the next 12 months.

- LGD and EAD estimates can be calculated as downturn measures, reflecting behaviour observed under stressed economic conditions, or as business as usual (BAU) measures, reflecting behaviour under conditions that are considered normal based on experience.

These parameters, in suitable combination, are used in a wide range of credit risk measurement and management. Barclays uses internal ratings for the following purposes:

- 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: originally introduced in the early 1990s to provide a common measure of risk across the Group. Wholesale credit grading now employs a 21 point scale of default probabilities. These are shown page 404 of the 2013 Annual Report.
- Risk-reward and Pricing: PD, EAD and LGD metrics are used to assess the profitability of deals and portfolios and to allow for risk-adjusted pricing and strategy decisions.
- Risk appetite: measures of expected loss and the potential volatility of loss are used in the Group's risk appetite framework.
- Impairment calculation: under IAS 39, many of the Group's collective impairment estimates incorporate the use of these PD and LGD models, adjusted as necessary.
- Collections and recoveries: model outputs are used to identify segments of the portfolio where collection and recovery efforts should be prioritised.
- Economic capital (EC) calculation: most EC calculations use the same PD and EAD inputs as the regulatory capital (RC) process. The process also uses the same underlying LGD model outputs as the RC calculation, but does not incorporate the same economic downturn adjustment used in RC calculations.
- Risk management information: Group risk and the business units generate risk reports to inform senior management on issues such as the business performance, risk appetite and consumption of EC. Model outputs are used as key indicators in those reports.

Ratings processes and models for wholesale exposures

To construct ratings for wholesale customers, including institutions, corporates, specialised lending, purchased corporate receivables and equity exposures, Barclays uses external models, rating agencies and internally constructed models. The applicability of each of these approaches to the Group's customers has been validated to internal rating standards (see "The control mechanisms for the rating system" section, below). The rating system is constructed to ensure that a client receives the same rating regardless of the part of the business with which it is dealing. To achieve this, a model hierarchy is adopted which requires users to adopt a specific approach to rating each counterparty depending upon the nature of the business and its location.

PD models

Internally built models are widely used. Barclays employs a range of methods in the construction of these models:

- **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 parts of the portfolio where the risk drivers are specific to a particular counterparty, but where there is insufficient data to support the construction of a statistical model. These models utilise the knowledge of credit experts that have in depth experience of the specific customer type being modelled. For any of the portfolios where Barclays has a low number of default observations specific rules are adopted to ensure that the calibration of the model meets the current Basel and FSA criteria for conservatism.
- **Statistical models** such as behavioural and application scorecards are used for our high volume portfolios such as small/medium enterprises (SME). The model builds typically incorporate the use of large amounts of internal data, combined with supplemental data from external data suppliers. Wherever external data is sourced to validate or enhance internally held data, similar data quality standards to those applicable to the management of internal data are enforced.

LGD models

In wholesale portfolios, the main approaches to calculating LGD aim to establish the effects of drivers (including industry, collateral coverage, recovery periods, seniority and costs) by looking at Barclays historical experience, supplemented with other external information where necessary. Estimates built using historical information are reviewed to establish whether they can be expected to be representative of future loss rates, and adjusted if necessary.

EAD models

In a similar fashion, wholesale EAD models estimate the potential utilisation of headroom based on historical information also considering the future outlook of client behaviour.

Ratings processes and models for retail exposures

Barclays' 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 models within Barclays are built in-house using internal data. Whilst most models are statistically or empirically derived, some expert lender models (similar to those described in the wholesale context) are used, particularly in situations where data scarcity precludes the statistically robust derivation of certain model parameters. In these cases appropriate assumptions are typically used, and wherever possible they are validated against internal and external experience.

In a retail context, there is a clear product delineation in terms of the models that are used. This is because in retail PDs/EADs/LGDs are assigned at a product level (and only in some cases at an exposure level).

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 (known as regression analysis), 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** are derived from the historically observed performance of existing clients as well as being supplemented by the same data as is used for application scoring. The techniques used to derive the output are the same as for application scoring. The output scores are used for existing customer management activities as well as for allocating a PD to existing customers for the purpose of capital calculation.

LGD models

Retail LGD models are built using bespoke methods chosen to best model the operational recovery process and practises. In a number of secured portfolios, LGD drivers are parameterised with market factors (e.g. house price indices) and so are able 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 are made to adjust losses to stressed conditions.

EAD models

EAD 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. These are frequently further segmented at a delinquency bucket level. The most sophisticated EAD models are based on behavioural factors, determining customer level CCFs from characteristics of the individual facility. For capital calculations, customised downturn adjustments are made to adjust for stressed conditions.

Management of model risk within Barclays – the control mechanisms for the rating system

Model risk is the potential for adverse consequences (e.g. financial loss, reputational impact, regulatory censure etc) from decisions based on incorrect or misused model outputs and reports. This can arise from fundamental model weaknesses leading to inaccurate outputs, errors in implementation, or incorrect/inappropriate use. Model risk has been identified as a risk to be managed under each Principal/Key Risk control frameworks.

Model risk policies are in place to support the management of model risk by providing detailed requirements around the main model risk factors:

- **Data and input processing:** Whether the data used in model building, validation and monitoring is relevant and of sufficient quality.
- **Design/conceptual soundness:** Assesses whether the underlying design, theory and logic is driven by the intended use, is mathematically accurate and leads to expected results.
- **Implementation and system control:** Whether the model was implemented correctly, so that it behaves in the way it was intended. This also covers the risk of the model environment being changed without proper controls by authorised personnel.
- **Model use and performance:** This is assessed as part of the monitoring and validation process (see page 125).
- **Model governance:** This covers all other areas of compliance with internal policy and external requirements, for instance breaches in the model risk policy or the application of post model adjustments.

Governance structure

The ownership structure around model risk is organised around clear delineation of roles and responsibilities and model materiality.

To apply the governance standards, an independent unit validates the models. Reports are then taken through a technical and business committee, where model owners, practitioners and technical experts discuss performance issues. Depending on the models' materiality the model is taken further to more senior committees. Note that externally developed models are subject to the same governance standards as internal models, and must be approved for use following the validation and independent review process. External models are also subject to the same standards for ongoing monitoring and annual validation requirements.

To ensure that the governance process is effective, and that management time is focused on the more material models, each model is assigned a materiality rating. The policies define the materiality ranges for all model types, based on an assessment of the impact that a model error would have on the Group. For instance, PD, LGD and EAD models receive a "A" materiality rating where their product exceeds £50m.

The most material a model is deemed to be, the higher the level of required sign-off for continued use will be. Furthermore, Barclays has independent validation units at business and Group (for the most material levels) that specialise in reviewing models.

The Group ensures that senior executives at Group level (including the Chief Risk Officer, Credit Risk Director and Wholesale and Retail Credit Risk Directors) as well as in the businesses (including CEOs and managing directors in the relevant areas) understand the operation and design of the rating system used to assess and manage credit risk. This enables them to carry out their responsibilities effectively.

If a model is found to perform sub-optimally, it may be subjected to a PMA before approval for continued use is granted.

Validation of new models

Although the final level of model sign-off will vary, depending on model materiality, the standards do not change with the materiality level. This process ensures that the most significant models are subject to the most rigorous review, and that senior management has a good understanding of the most material models in the Group.

The model risk policies set detailed standards that a model must meet during development and subsequent use. For new models, documentation must be sufficiently detailed to allow an expert to understand all aspects of model development such that they could reproduce the model. It must include a description of the data used for model development, the methodology used (and the rationale for choosing such a methodology), a description of any assumptions made, and details of the limitations and assumptions of the model.

All new models are subject to independent validation before they can be signed off for implementation. The independent validation exercise must demonstrate that the model is fit for purpose and provides accurate estimates. To that end, checks and analyses performed include:

- Model has their intended use, performance and limitations communicated to all relevant users and stakeholders.
- The model is built to represent real-world interactions as closely and transparently as possible.
- It is documented to allow others to assess choice of methodology, to replicate key analyses and to assess the validity of assumptions.
- Implemented in a timely manner and continuously maintained ensuring use in the manner intended.
- Pre-notify the relevant regulators. Note that models are only authorised for use in calculating regulatory capital once the regulators have performed all reviews and checks that they deem necessary.
- Models cannot be used until all relevant approvals are obtained.

Validation of existing models

To ensure that models remain fit for purpose, are still used correctly, and are not incorrectly implemented (for instance if the model was migrated to a new system without proper oversight), regular validations must take place. The models must:

- Be regularly challenged, tested and verified to pass the tests for "fit for purpose" and continued use.
- Be monitored regularly to prove that they measure and perform as intended.
- Have any related material issues put forward to the relevant committee for discussion and resolution.
- All implemented models within the Group are subject to ongoing performance monitoring to ensure that any deficiencies are identified early, and that remedial action can be taken before the decision making process is affected. For instance:
 - The models can be reweighted to reflect a different influencing factors distribution.
 - Buffers can be put in place to drive more conservative capital calculations, and taking account of the impact on decision processes involving risk, pricing and reporting.

In addition to regular monitoring, models are subject to an annual validation process to ensure that they will continue to perform as expected, and that assumptions used in model development are still appropriate. In line with initial sign-off requirements, annual validations are also formally reviewed at the appropriate technical committee.

Within the Investment Bank, where models are used to value positions within the trading book, the positions are subject to regular independent price testing. Prices are compared with direct external market data where possible. When this is not possible, analytical techniques are used, such as industry consensus pricing services. These services enable peer banks to compare structured products and model input parameters on an anonymous basis. The conclusions and any exceptions to this exercise are communicated to senior levels of business management.

Table 66 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. It is Barclays' policy to validate the models on an annual basis.

Selected features of material models

The table on the next page contains selected features of the Group's most material credit risk models, classified as materiality A and A*. PD, LGD and EAD models receive an "A" materiality rating or above where their product exceeds £50m. In the table:

- The PD models account for £105.2bn, or 65% of total IRB approach RWAs, including advanced and foundation.
- The LGD models, that are only applicable to the advanced IRB approach, account for £124.3bn, or 82% of advanced IRB approach RWAs.
- The EAD models, that are also only applicable to the advanced IRB approach, account for £105.1bn, or 70% of advanced IRB approach RWAs.

Table 66: AIRB credit risk models selected features

As at 31.12.13

Component modelled	Business Unit	Portfolio	Size of associated portfolio (RWAs)	Model description and methodology	Number of years loss data	Basel asset classes measured	Regulatory thresholds applied by Barclays
PD	Investment Bank, Corporate Banking, Absa	Publicly traded corporates	£21.6bn	Statistical / model uses a Merton-based methodology.	>10 years	Corporates	PD floor of 0.03%
	Investment Bank, Corporate Banking, Absa	Customers rated by external rating agencies	£26.6bn	Rating Agency Equivalent model converts agency ratings into estimated equivalent PIT default rates using credit cycles based on rating agency data.	>10 years	Corporate, Financial Institutions and Sovereigns	PD floor of 0.03% for corporates and institutions
	Corporate Banking, Barclays Business	Corporate and SME customers with turnover < £20m	£7.2bn	Statistical model that uses regression techniques to derive relationship between observed default experience and a set of explanatory variables.	6-10 years	Corporates Corporate SME Retail SME	PD floor of 0.03%
	Corporate Banking, Barclays Business, Investment Bank	Corporate customers with turnover ≥ £20m	£12.7bn	Statistically derived model sourced from an external vendor for use in the rating systems.	6-10 years	Corporate Corporate SME	PD floor of 0.03%
	UKRBB	Home Finance	£16.5bn	Statistical scorecards estimated using regression techniques. They are calibrated against long-run industry default data.	6-10 years	Retail Mortgages (residential and buy-to-let mortgages)	PD floor of 0.03%
	UKRBB	Business Banking	£4.6bn	Statistical scorecards calibrated against long-run default data.	>10 years	Mainly used for Retail SME	PD floor of 0.03%
	Barclaycard	Barclaycard UK	£9.6bn	Statistical scorecards estimated using regression techniques. They are calibrated against internal default data.	6-10 years	Retail QRRE	PD floor of 0.03%
	Europe RBB	Spain Mortgages	£3.0bn	Statistical scorecards calibrated against long-run industry default data.	6-10 years	Retail Mortgages	PD floor of 0.03%
	Africa RBB	Absa Home Loans	£3.4bn	Statistical scorecards calibrated against long-run default data.	6-10 years	Retail Mortgages (residential and buy-to-let mortgages)	PD floor of 0.03%
LGD	Investment Bank Corporate Banking	Corporates and Financial Institutions	£54.2bn	Statistical regression model that produces a downturn LGD and a long run average LGD. Inputs include collateral, seniority level and recoveries data.	>10 years	Corporate Financial Institutions	-
	Investment Bank	Sovereign Entities	£10.1bn	Regression calibrated to Moody's Sovereign losses. Model inputs are Economist Intelligence Unit country scores. Final model LGD is calculated using a scorecard that adjusts the overall average historical loss.	>10 years	Sovereign	A 45% floor for sovereign exposures is applicable as at year-end 2012.
	Corporate Banking Business Banking	Corporate and Business Banking customers	£27.5bn	Model calculates LGD taking account of EAD, collateral value (discounted to reflect disposal in stressed circumstances and time to recover) and an allowance for non-collateral recovery.	>10 years	Corporates Corporate SME Retail SME	-
	UKRBB	Home Finance	£16.5bn	Data driven estimates of loss and probability of possession are complemented with expert judgment where appropriate.	>10 years	Retail Mortgages (residential and buy-to-let mortgages)	LGD floor of 10% at portfolio level.
	Barclaycard	Barclaycard UK	£9.6bn	Statistical models combining regression and other forecasting techniques.	6-10 years	Retail QRRE	

Table 66 (Continued)

Component modelled	Business Unit	Portfolio	Size of associated portfolio (RWAs)	Model description and methodology	Number of years loss data	Basel asset classes measured	Regulatory thresholds applied by Barclays
LGD	Europe RBB	Spain Mortgages	£3.0bn	Data driven estimates of loss and probability of possession are complemented with expert judgment where appropriate.	6-10 years	Retail Mortgages	LGD floor of 10% at portfolio level.
	Africa RBB	Absa Home Loans	£3.4bn	A data driven statistical approach estimates loss and probability of possession complemented with expert judgment where appropriate.	6-10 years	Retail Mortgages (residential and buy-to-let mortgages)	LGD floor of 10% at portfolio level.
EAD	Investment Bank	Corporates and Financial Institutions	£41.1bn	Statistical regression based model predicts Credit Conversion Factors (CCFs) along with Product Credit Conversion Factors (PCCFs). These are applied based on the facility product type to the balance and limit information in order to derive a corresponding EAD.	>10 years	Corporate Financial Institutions	EAD must be at least equivalent to current balance utilisation at account level.
	Corporate Banking	Corporate and Business Banking customers	£31.5bn	EAD is calculated by reference to product type, the size of business (sales turnover), and industry for certain specialised sectors to determine the conversion factors on undrawn exposure.	6-10 years	Corporates Corporate SME Retail SME Institutions	EAD must be at least equivalent to current balance utilisation at account level.
	UKRBB	Home Finance	£16.5bn	Rule-based calculation validated using historical data.	>10 years	Retail Mortgages (residential and buy-to-let mortgages)	EAD must be at least equivalent to current balance utilisation at account level.
	Barclaycard	Barclaycard UK	£9.6bn	Statistical scorecards estimated using regression techniques. They are calibrated against internal default data.	6-10 years	Retail QRRE	EAD must be at least equivalent to current balance utilisation at account level.
	Europe RBB	Spain Mortgages	£3.0bn	Rule-based calculation validated using historical data.	6-10 years	Retail Mortgages	EAD must be at least equivalent to current balance utilisation at account level.
	Africa RBB	Absa Home Loans	£3.4bn	Statistical approach using historic data to determine a credit conversion factor, which is applied to the non-defaulted assets in appropriate cohorts to forecast EAD.	3-5 years	Retail Mortgages (residential and buy-to-let mortgages)	EAD must be at least equivalent to current balance utilisation at account level.

Credit Model Performance – Estimated versus Actual

The following table shows the estimated one-year PD, estimated PIT LGD and EAD from the IRB exposure models. They are compared with data from actual defaults. These comparisons are used to help assess whether the models are fit for purpose.

The PDs relate to the portfolios managed following the advanced and foundation IRB approaches. Individual portfolio PDs within an exposure class have been weighted at the same level as they were estimated (usually obligor or facility) to yield average PDs. The LGD percentages and EAD ratios are based on defaulted assets in advanced approach portfolios (the foundation approach does not estimate these figures but uses parameters stipulated by PRA regulations).

Differences between this table and values used as inputs in the capital calculation

The forecasts shown in the table are based on Barclays' model calibrations; these are compared with actual values for the same variables realised over the estimation period. The estimates (and actuals) represent the direct output from the models rather than outputs used in regulatory capital calculations that may be adjusted to apply more conservative assumptions to reflect:

- PD values on a TTC basis factoring in the long-run default rate in comparison to the annual default rate presented in this table; LGD on a "downturn" basis, reflecting the impact of stress on collateral recovery.
- Minimum values for certain parameters typically that imply higher severity than Barclays modelled and observed values. For example, retail loans secured by real estate collateral have a regulatory minimum LGD of 10%.

Note that for RWA calculation purposes no post model adjustments are applied that reduce capital requirements compared to what the model output prescribes.

Estimate versus actual analysis at Barclays

Risk models are subject to the Group's risk model policy that contains detailed guidance on the minimum standards for model development. For instance, PDs must be estimated over a sufficient period, show sufficient differentiation in predictions for different customers, show conservatism where data limitations exist, and follow prescriptive techniques. These standards are achieved via an independent validation process (using 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.

Further detail is provided in the Risk Management Strategy, Governance and Risk Culture section on page 101.

Probability of default measures

- The estimated PDs are simple averages at the level of single exposures (usually facilities for retail asset classes, and obligors for wholesale asset classes), for the total portfolio population. The estimate is a forward looking average PD modelled at the beginning of the 12 month period.
- 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 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, Basel 3 add-ons). Some retail portfolios use TTC PDs for this analysis and these are also subject to regulatory adjustments, though only in cases where such adjustments increase the overall RWAs. The PIT measure is subject to under or over prediction depending on the relative position of the portfolio to the credit cycle.
- Actual PD is the default rate for each asset class, which is the ratio of the defaulted population to the total population over the last 12 months in terms of unit of exposure.

Average LGD measures

- Estimated LGDs are derived from simple averages at facility or customer level at the time of default for the set of closed cases over the last 12 months.
- The point-in-time LGD measures are used as a predicted measure in internal monitoring and annual validation of the models. The capital calculation uses downturn LGDs (not shown above) with additional adjustments where modelled outputs display evidence of risk understatement (including credit expert overrides, regulatory adjustments, and Basel 3 add-ons).
- The actual LGD rate is the simple average observed loss rates of all the closed cases during the last 12 months, regardless of the time of default.

EAD ratio is calculated as the estimated EAD as a proportion of the actual EAD for the defaulted population.

Table 67: Analysis of expected performance versus actual results

This table provides an overview of credit risk model predictions against the actual portfolio performance throughout the year, assessed through the analysis of average PDs, average LGDs and EAD ratios.

The table compares the raw model output to the actual experience in Barclays' 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.

IRB exposure class/year	PD of total portfolio		LGD of defaulted assets		EAD of defaulted assets
	Estimate %	Actual %	Estimated %	Actual %	Estimate to actual ratio
As at 31.12.13					
Wholesale					
Central governments or central banks					
Investment Bank	0.31	–	–	–	–
Corporate Banking	–	–	–	–	–
Absa	0.41	–	n/a	n/a	n/a
Institutions					
Investment Bank	0.80	0.02	–	–	–
Corporate Banking	0.43	–	–	–	–
Absa	0.52	–	n/a	n/a	n/a
Corporates					
Investment Bank	1.27	0.48	67	60	1.02
Corporate Banking	2.14	2.50	40	28	1.05
Absa	1.16	3.19	n/a	n/a	n/a
Retail					
SME	7.15	5.89	79	72	1.08
Secured by real estate collateral UK	0.61	0.49	3	2	1.02
Secured by real estate collateral Rest of World	1.85	2.09	9	23	1.03
Qualifying revolving retail	1.58	1.68	78	72	1.00
Other retail	6.39	6.07	64	67	1.07
As at 31.12.12					
Wholesale					
Central governments or central banks					
Investment Bank	0.36	–	–	–	–
Corporate Banking	0.23	–	–	–	–
Absa	0.74	–	n/a	n/a	n/a
Institutions					
Investment Bank	0.97	0.02	–	–	1.43
Corporate Banking	1.11	–	–	–	–
Absa	1.05	–	n/a	n/a	n/a
Corporates					
Investment Bank	1.65	0.31	44	15	1.08
Corporate Banking	2.75	1.70	45	45	1.11
Absa	1.85	2.15	n/a	n/a	n/a
Retail					
SME	7.06	5.91	68	72	1.06
Secured by real estate collateral UK	0.67	0.53	4	1	1.02
Secured by real estate collateral Rest of World	1.98	2.10	14	24	1.03
Qualifying revolving retail	1.64	1.77	84	83	1.02
Other retail	7.44	4.81	62	60	1.01

Table 67 (Continued)

IRB exposure class/year	PD of total portfolio		LGD of defaulted assets		EAD of defaulted assets
	Estimate %	Actual %	Estimated %	Actual %	Estimate to actual ratio
As at 31.12.11					
Wholesale					
Central governments or central banks					
Investment Bank	0.24	–	–	–	–
Corporate Banking	n/a	n/a	n/a	n/a	n/a
Absa	0.85	–	n/a	n/a	n/a
Institutions					
Investment Bank	1.02	0.01	67	64	0.88
Corporate Banking	0.87	0.38	–	–	1.00
Absa	0.98	–	n/a	n/a	n/a
Corporates					
Investment Bank	1.77	0.50	37	34	1.13
Corporate Banking	3.53	1.76	50	51	1.06
Absa	1.78	1.76	n/a	n/a	n/a
Retail					
SME	6.74	5.55	65	69	1.04
Secured by real estate collateral UK	0.68	0.57	4	1	1.02
Secured by real estate collateral Rest of World	2.13	2.84	8	15	1.02
Qualifying revolving retail	1.85	2.12	83	83	1.00
Other retail	7.89	6.36	63	60	1.01
As at 31.12.10					
Wholesale					
Central governments or central banks					
Investment Bank	0.36	–	–	–	–
Corporate Banking	n/a	n/a	n/a	n/a	n/a
Absa	1.06	–	n/a	n/a	n/a
Institutions					
Investment Bank	1.00	0.01	48	37	–
Corporate Banking	0.80	0.37	n/a	n/a	n/a
Absa	0.95	–	n/a	n/a	n/a
Corporates					
Investment Bank	2.23	0.45	44	45	0.98
Corporate Banking	3.29	1.78	58	37	1.10
Absa	1.24	0.70	n/a	n/a	n/a
Retail					
SME	6.59	6.91	64	65	1.13
Secured by real estate collateral UK	0.71	0.59	4	1	1.02
Secured by real estate collateral Rest of World	4.27	3.62	5	14	1.03
Qualifying revolving retail	2.18	2.12	79	85	1.04
Other retail	7.36	6.96	56	59	1.01

Note that some of the data underlying the table follows the business model monitoring cycle that does not precisely coincide with year ends; we do not consider this introduces a bias in a particular direction.

Note that LGD and EAD for foundation IRB portfolios (wholesale Absa asset classes) are prescribed measures and not derived using credit risk models, hence do not form part of this report.

Developments in 2013

Corporate Banking average PD

- The PD estimate for Corporate Banking, as at the beginning of 2013, reduced to 2.14% (January 2012: 2.75%). This is driven by the two models for companies with a turnover of less than £20m that reflected an improvement in economic conditions. However, the observed actual default rate increased to 2.5% in the year (2012: 1.7%). For RWA calculation purposes adjustments are made to the inputs to compensate for differences between estimates and actual observed values to ensure models are conservative at every point of the cycle.
- Similarly, the Absa corporate models show higher actual defaults compared to predicted; the associated models were re-designed and replaced during the year. Adjustments to RWAs are in place that fully compensate for this. For RWA calculation purposes adjustments are made to the inputs to compensate for differences between estimates and actual observed values to ensure models are conservative at every point of the cycle.

SME average LGD

- The increase in the estimated SME LGD, to 78.71% (2012: 68.21%) reflects the actual 2012 experience that showed higher LGDs than predicted. Models are regularly updated, and increases in actual LGD are reflected in any recalibrations of the model, and therefore in subsequent estimations.

Qualifying revolving retail average LGD

- The lower actual QRRE LGD is driven by Absa retail portfolios that have shown volatility in recent years due to acquisitions.

Secured by real estate collateral in Rest of World

- The 2013 PD estimate is based on models in force as at the end of 2012; the model has since been re-designed in January 2013 and takes account of actual experience in 2012 and 2013. These estimates will be shown in the 2014 Pillar 3 report. Previously, adjustments to RWAs were in place to ensure capital levels were adequate.
- Similarly, a new LGD model is being validated, and adjustments are in place to ensure that the RWA calculation is appropriately conservative.

Management of counterparty credit risk and credit risk mitigation techniques

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 129 a high-level description of the types of exposures incurred in the course of Barclays' activity supplements the analytical tables in pages 65 to 72.
- 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 130.

Counterparty credit risk

Derivative counterparty credit exposures

The Group buys and sells 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 margin daily with cash or other security at the exchange, to which the holders look for ultimate settlement.

The Group also buys and sells 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 customers. In many 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 a 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 (e.g. repurchase agreements), or long settlement transactions.

Internal capital for counterparty credit risk is assessed and allocated based on the economic capital for wholesale credit risk calculation. The magnitude of the exposure is determined by considering the current mark to market of the contract, the historic volatility of the underlying asset and the time to maturity. This allows calculation of a Credit Equivalent Exposure (CEE) for such exposures. The total economic capital for a portfolio of such exposures is then calculated in a manner similar to a book of loans.

Wrong-way risk in a trading exposure arises when there is significant correlation between the underlying asset or associated collateral and the counterparty, which in the event of default would lead to a significant mark to market loss. When assessing the credit exposure of a wrong-way trade, analysts take into account the correlation between the counterparty and the underlying asset as part of the sanctioning process.

Adjustments to the calculated CEE are considered on a case by case basis. In the case of specific wrong-way risk trades, which are self-referencing or reference other entities within the same counterparty, specific approval by a senior credit officer is required.



See credit risk mitigation section on page 130 for policies governing collateral management.

Derivative netting and collateral arrangements

Credit risk from derivatives is mitigated where possible through netting agreements whereby derivative assets and liabilities with the same counterparty can be offset. Group policy requires all netting arrangements to be legally documented. The ISDA Master Agreement is the Group's preferred agreement for documenting over the counter (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 Credit Support Annex (CSA) collateral agreements.

Collateral is obtained against derivative assets, depending on the creditworthiness of the counterparty and/or nature of the transaction. Any 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 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 Barclays the power to realise any collateral placed with it in the event of the failure of the counterparty, and to place further collateral when requested or in the event of insolvency, administration or similar processes, as well as in the case of early termination.

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

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

Derivative counterparty credit risk measurement (Credit Value Adjustments)

Barclays participates in derivative transactions, it is exposed to counterparty credit risk 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 mark to market 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, which is replicated by purchasing and selling credit default swaps (CDS) on the counterparty to create a hedge position that mirrors the expected exposure profile for the counterparty.

CVA for derivative positions are calculated as a function of the expected exposure, which is the average of future hypothetical exposure values (or mark to market) for a single transaction or group of transactions by the same counterparty, and the CDS spread for a given horizon.

In order to calculate the expected exposure, the expected mark to market is calculated using Monte Carlo simulations of risk factors that may affect the valuation of the derivative. These simulations include credit mitigants such as exposure netting, collateral, mandatory break clauses and set-off 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.

Credit risk mitigation

Barclays employs a range of techniques and strategies to actively mitigate credit risks to which it is exposed. These can broadly be divided into three types:

- Netting and set-off;
- Collateral; and
- Risk transfer.

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

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, Investment Bank, Corporate Banking and other business areas may all take property, cash or other physical assets as collateral for exposures to retailers, property companies or other client types.

Netting and set-off

In many jurisdictions in which Barclays operates, credit risk exposures can be reduced by applying netting and set-off. In exposure terms, this credit risk mitigation technique is used mainly in derivative transactions with financial institutions and has the largest overall impact on net exposure to derivative financial instruments compared with other risk mitigation techniques.

For derivative transactions, Barclays will often seek to enter into standard master agreements with counterparties (e.g. ISDA). These master agreements allow for netting of credit risk exposure to a counterparty resulting from a derivative transaction against Barclays' obligations to the counterparty in the event of default, to produce a lower net credit exposure. These agreements may also reduce settlement exposure (e.g. for foreign exchange transactions) by allowing for payments on the same day in the same currency to be set off against one another.

In the majority of its portfolios, Barclays uses the Internal Model Method (IMM) to calculate counterparty credit risk exposures.

Collateral

The Group has the ability to call on collateral in the event of default of the borrower or other 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 charge over residential property, which is subordinate to first charge held either by the Group or by 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: Barclays also often seeks to enter into a Credit Support Annex (CSA) with counterparties with which Barclays has master 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 or weekly) to collateralise the mark-to-market exposure of a derivative portfolio;
- Reverse repurchase agreements: collateral typically comprises highly liquid securities which have been legally transferred to Barclays subject to an agreement to return them for a fixed price; and
- Financial guarantees and similar off-balance sheet commitments: cash collateral may be held against these arrangements.

For details of the fair value of collateral held please refer to Maximum exposure table on pages 143 and 144 of the 2013 Annual Report. For detail of collateral in credit portfolios see pages 165 and 178 of the 2013 Annual Report.

In exposure terms, the main portfolios that Barclays takes collateral for are home loans and reverse repurchase agreements with financial institutions.

Floating charges over receivables

The Group may also obtain collateral in the form of floating charges over receivables and inventory of corporate and other business customers. The value of this collateral varies from period to period depending on the level of receivables and inventory. It is impracticable to provide an estimate of the amount (fair value or nominal value) of this collateral. The Group may in some cases obtain collateral and other enhancements at a counterparty level, which are not specific to a particular class of financial instrument. The fair value of the credit enhancement gained has been apportioned across the relevant asset classes.

Collateral for derivative contracts

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 Barclays the power to realise any collateral placed with it in the event of the failure of the counterparty.

Valuation of collateral and impact of market moves

Typically assets other than cash are subject to regular revaluation (for example via physical review, linking to an external index or depreciation of the asset) to ensure they continue to achieve appropriate mitigation of risk. Customer agreements often include requirements for provision of additional collateral should valuations decline or credit exposure increase, for example due to market moves impacting a derivative exposure.

The carrying value of non-cash collateral reflects the fair value of the physical assets limited to the carrying value of the asset where the exposure is over-collateralised. In certain cases where active markets or recent valuations of the assets are not available, estimates are used. For assets collateralised by residential or commercial property (and certain other physical assets), where it is not practicable to assess current market valuations of each underlying property, values reflect historical fair values updated for movements in appropriate external indices. For further information on LTV ratios in principal home loans portfolios, see the portfolio review section on pages 165 to 172 of the 2013 Annual Report.

Liens over fluctuating assets such as inventory and trade receivables, known as floating charges, over the assets of a borrower are monitored at least annually. The valuation of this type of collateral takes into account the ability to establish objectively a price or market value, the frequency with which the value can be obtained (including a professional appraisal or valuation), and the volatility or a proxy for the volatility of the value of the collateral.

For assets collateralised by traded financial instruments, values reflect mark to market or mark to model values of those assets, applying a haircut where appropriate. 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.

Valuation of collateral – property

When property is taken as collateral it is monitored to ensure that the current value is not less than its value at origination. Monitoring is undertaken annually for commercial property or via linking to an external index for residential property. More frequent monitoring may be carried out where the property sector is subject to significant deterioration.

Deterioration is monitored principally by geography. Specific exercises to monitor property values may be undertaken where the property sector in a given geography has been subject to significant deterioration and where Barclays has a material concentration of property collateral.

Monitoring may be undertaken either a portfolio level (Retail) or at the level of an individual property (Wholesale).

In Retail businesses, monitoring on a portfolio level refers to a more frequent process of indexing collateral values on each individual loan, using a regional or national index, and updating LGD values. This monitoring may be a desktop assessment and need not necessarily include physical assessment of properties. In the event of charge-off, an individual valuation of the property is undertaken within three months of the charge-off event and subsequently undertaken at least every six months whilst in charge-off.

In Wholesale, monitoring is undertaken by individuals who are not part of the sales / relationship part of the business. The monitoring may be a desktop assessment and need not necessarily include physical assessment of properties. Where an appropriate local index is not available, property values are monitored on an individual basis as part of the annual review process for the loan. For larger loans, in addition to the regular annual review, the property value is reviewed by an independent valuer at least once every three years. This review is a more detailed assessment than the standard property monitoring review, and may include a fresh professional valuation. In addition, an independent valuer reviews the property valuation where information indicates that the value of the property may have declined materially relative to general market prices. In addition, trigger points are defined under which property values must be reviewed.

Valuation of collateral – distressed assets

The net realisable value from a distressed sale of collateral obtained by the Group upon default or insolvency of counterparty will in some cases be lower than the carrying value recognised above. Assets obtained are normally sold, generally at auction, or realised in an orderly manner for the maximum benefit of the Group, the borrower and the borrower's other creditors in accordance with the relevant insolvency regulations. For business customers, in some circumstances, where excess funds are available after repayment in full of the outstanding loan, they are offered to any other, lower ranked, secured lenders. Any additional funds are returned to the customer. Barclays does not, as a rule, occupy repossessed properties for its business use or use assets obtained in its operations.

Additional revaluations are usually performed when a loan is moved to EWL or WL. Exceptions to this may be considered where it is clear a revaluation is not necessary, for instance where there is a very high margin of security or a recent valuation has been undertaken. Conversely, a material reduction in the value of collateral held represents an increase in credit risk and will often cause a loan to be placed on the EWL or WL.

Any one of the above events may also trigger a test for impairment, depending on individual circumstances of the loan. When calculating impairment, the difference between an asset's carrying amount and the present value of all estimated cash flows discounted at the original effective interest rate will be recognised as impairment. Such cash flows include the estimated fair value of the collateral which reflects the results of the monitoring and review of collateral values as detailed above and valuations undertaken as part of our impairment process.

Whether property values are updated as part of the annual review process, or by indexation of collateral values, the updated collateral values feed into the calculation of risk parameters which, in turn, feed into identified and unidentified impairment calculations at each balance sheet date.

Trends in loan loss rates incorporate the impact of any decrease in the fair value of collateral held.

Collateral – regulatory capital benefit

Where regulatory capital is calculated under advanced IRB 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.

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 credit worthy than the original counterparty, then overall credit risk will have been reduced; and
- where recourse to the first counterparty remains, both counterparties must default before a loss materialises. This will be 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.

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

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, customers and counterparties 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.

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 134 we provide an overview of the market risks we incur across the bank.
- The governance structure specific for market risks is explained on page 131.

The rest of the section is divided into traded, non-traded and other risks:

- Traded market risk, the risk of the Group being impacted by changes in the level or volatility of positions in the trading book, is covered on pages 136 to 142. Measurement techniques such as VaR, are discussed, and techniques applied when statistical techniques are not appropriate.
- Non-traded market risks, the risk that the Group is unable to hedge its banking book at prevailing market level, mainly arising as a result of lending and deposit taking activities, are discussed from pages 142 and 143, along with a discussion of how they are managed.
- Other market risks, such as those associated with Barclays pension obligations, are analysed separately from page 143.

Introduction to the management of market risk



Barclays' definition of market risk

Market risk is the risk of the Group's earnings or capital being reduced due to:

- The Group being impacted by changes in the level or volatility of positions in its trading books. This includes changes in the interest rates, credit spreads, commodity prices, equity prices and foreign exchange levels ('traded market risk').
- The Group being unable to hedge its banking book balance sheet at prevailing market levels ('non-traded market risk').
- The Group's defined benefit obligations increasing or the value of the assets backing these defined benefit obligations decreasing due to changes in both the level and volatility of prices ('pension risk').

Each of the above has been identified by Barclays' management as key risks underlying the principal risk: market risk.

Traded market risk overview

Traded 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, Barclays 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.

Non-traded market risk overview

Barclays banking book operations generate non-traded market risk, primarily through interest rate risk arising from the sensitivity of net interest margins to changes in interest rates. Banking businesses, such as RBB or Corporate Banking, engage in internal derivative trades with Treasury to remove this interest rate risk, however, the businesses remain susceptible to market risk from three key sources:

- Prepayment risk: Balance run-off may be faster or slower than expected due to economic conditions or customers response to interest rates. This can lead to a mismatch between the anticipated balance of products provided to customers and the hedges executed with Treasury;
- Recruitment risk: The volume of new business may be lower or higher than expected requiring the business to unwind or execute hedging transactions with Treasury at different rates than expected; and
- Residual risk and margin compression: The business may retain a small element of interest rate risk to facilitate the day-to-day management of customer business. Additionally, in the current low rate environment, Barclays managed rate deposits are exposed to margin compression. This is because for any further fall in base rate Barclays must absorb an increasing amount of the rate move in its margin.

Barclays banking operations also generate non-traded market risk through the sensitivity of balance sheet items to movements in market levels, primarily foreign exchange and interest rates.

Pension risk overview

Barclays maintains a number of defined benefit pension schemes for past and current employees. The ability of the pension fund to meet the projected pension payments is maintained principally through investments.

Pension risk arises because the estimated market value of the pension fund assets might decline; or their investment returns might reduce; or the estimated value of the pension liabilities might increase. Barclays monitors the market risks arising from its defined benefit pension schemes, and works with the trustees to address shortfalls. In these circumstances, Barclays 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.

Organisation and structure

Traded risk in the businesses resides primarily in Investment Bank, while non-traded market risk resides mainly in Retail and Business Banking, Corporate Banking, Wealth and Investment Management and Treasury. Pension risk is monitored centrally with the cost borne across businesses.

Overview of the business market risk control structure



Roles and responsibilities

The objectives of Barclays market risk management is to:

- understand and control market risk by robust measurement, limit setting, reporting and oversight;
- facilitate business growth within a controlled and transparent risk management framework;
- ensure that traded market risk in the businesses resides primarily in Investment Bank including Absa CIBW; and
- minimise non-traded market risk.

To ensure the above objectives are met, Barclays has a well established governance structure in place, whereby the risks are identified, assessed, controlled and reported on throughout the organisation.

The Board Financial Risk Committee (BFRC) reviews and approves market risk appetite for the Group. The Group Market Risk Director is responsible for the Barclays Market Risk Control Framework and, under delegated authority from the Group Chief Risk Officer, sets a limit framework within the context of the approved market risk appetite.

The Market Risk Committee approves and makes recommendations concerning the market risk profile across Barclays Group. This includes approving the Barclays Market Risk Control Framework and Group Market Risk Policies; reviewing arising market or regulatory issues, limits and utilisation; and proposing risk appetite levels to the Board. The Committee is chaired by the Group Market Risk Director and attendees include the Group Chief Risk Officer, respective business aligned risk managers and senior managers from Group Market Risk as well as Internal Audit.

The head of each business is accountable for all market risks associated with its activities. The head of the market risk team covering each business is responsible for implementing the risk control framework for market risk. The control frameworks for traded, non-traded and pensions risk are all governed by the Market Risk Control Framework, which sets out how market risk should be identified, measured, controlled, reported and reviewed. The Framework also outlines and references Group Market Risk policies.

Market risk oversight and challenge is provided by business committees, Group committees, including the Market Risk Committee and Group Market Risk. The chart above gives an overview of the business control structure.

Risk management in the setting of strategy

Appetite for market risk is recommended by the risk function, to be agreed by BFRC. Mandate and scales are set to control levels of market risk and ensure the Group remains within risk appetite. The Group runs an annual Group-wide stress testing exercise which aims to simulate the dynamics of exposures across Barclays Group and cover all risk factors. The exercise is also designed to measure the impact to Barclays' fundamental business plan, and is used to manage the wider Group's strategy.

See pages 109 to 115 for more detail on the role of risk in the setting of strategy.

Market risk culture

The Investment Bank risk function, which includes the market risk function, reports directly to the Group Chief Risk Officer, in line with the Transform initiative. Market risk managers are independent from the businesses they serve which embeds a risk culture with strong adherence to limits that support Group wide risk appetite. See pages 102 to 109 for more detail on Barclays' risk culture.

Management of traded market risk

Barclays' governance structure helps ensure all market risks that the Group is exposed to are well managed and understood.

Traded market risk is generated primarily as a result of market making activities, syndications and providing structured risk management solutions to clients at Barclays Investment Bank only. The Investment Bank also manages the Interest Rate risks for other businesses through the Group Treasury function. Positions will contribute both to market risk limits and regulatory capital if relevant.

Measure	Description
Management Value at Risk (VaR)	An estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for one business day.
Primary stress tests	An estimate of potential losses that might arise from extreme market moves or scenarios to key liquid risk factors.
Secondary stress tests	Modelled losses to unfavourable market movements to illiquid market risk exposures.
Combined scenario stresses	Multi asset scenario analysis of extreme, but plausible events that may impact the market risk exposures of the Investment Bank.

Barclays' use of Management VaR for traded market risk is broader than the application for use of VaR for regulatory capital and captures standardised, advanced and certain banking books where traded market risks are deemed to exist. The wider scope of Management VaR is what Barclays deems as material market risk exposures which may have a detrimental impact on the performance of the investment bank. The scope used in Regulatory VaR (see page 75) applies only to trading book positions as defined by the PRA which is a narrower scope.

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.

Traded market risk measurement – management view

Market risk management measures

Barclays uses a range of complementary approaches to measure traded market risk which aim to capture the level of losses that the Investment Bank is exposed to due to unfavourable changes in asset prices. The primary tools to control the firm's exposures are:

Management VaR

- Estimates the potential loss arising from unfavourable market movements.
- Management VaR differs from the Regulatory VaR used for capital purposes.
- Backtesting performed to ensure 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, the Investment Bank uses a historical simulation methodology with a two-year equally weighted historical period, at the 95% confidence level for all trading books and some banking books. VaR is split by risk factor as summarised below:

Risk factor	Description
Interest rate	Changes in the level of interest rates can impact prices of interest rate sensitive assets, such as bonds and derivative instruments, for example, Interest Rate Swaps.
Spread risk	Spread Risk (difference between bond yields and swap rates) arises when the business has positions in both bonds and derivative instruments; both assets may trade at different levels but are fundamentally exposed to similar risk.
Foreign exchange risk	The impact of changes in foreign exchange rates and volatilities. Investment Bank may be exposed to adverse or favourable movements in FX prices (e.g. movement of FX trade after entering into a forward rate FX contract).
Equity risk	Market risk may arise due to changes in equity prices, volatilities and dividend yields, for example, the Investment Bank is exposed to this risk as part of its market making activities, syndication or underwriting Initial Public Offerings.
Commodity risk	Commodity risk arises primarily from the Investment Bank's commodities businesses, who provide hedging solutions to clients and access to financial investors.
Inflation risk	The impact of changes in inflation rates and volatilities on cash instruments and derivatives. This arises as part of market making activities, whereby Investment Bank may be exposed to changes in inflation rates, for example, market making syndications for inflation linked securities.
Credit risk	The market risk that arises from the uncertainty of credit quality impacting prices of assets, for example, positions such as Corporate Bonds, Securitised products and derivative instruments, for example, Credit Default Swaps provide market risk exposure.
Basis risk	The impact of changes in interest rate tenor basis (e.g. the basis between swaps vs. 3M LIBOR and swaps. 6M LIBOR) and cross currency basis and is primarily generated as a result of market making activities.

In some instances, historical data is not available for particular market risk factors for the entire lookback period, for example, complete historical data would not be available for an equity following an Initial Public Offering. In these cases, market risk managers will proxy the unavailable market risk factor data with available data for a related market risk factor.

The output of the Management VaR model can be readily tested through backtesting process. Backtesting checks instances where actual losses exceed the predicted potential loss estimated by the VaR model. If the number of instances is too high, where actual losses exceed the predicted potential loss estimated by the VaR model, this could indicate limitations with the VaR calculation, for example, the calculation is not capturing certain market risk factors.

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'). RNIVs can be of two varieties:

- Non VaR-type RNIVs: Represents a risk which would not be well captured by any VaR model either because it represents an event not historically observed (e.g. currency peg break) or a market risk factor which is not seen to move frequently (e.g. correlation).
- VaR-type RNIVs: Represents risks that are not captured in VaR, mainly because of infrastructure limitations or methodology limitations.

Risk managers estimate RNIVs on a regular basis to improve the accuracy of the VaR capture model.

When reviewing VaR estimates, the following considerations should be taken into account:

- The historical simulation uses the most recent two years 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; and
- VaR does not indicate the potential loss beyond the VaR confidence level.

Limits are applied at the total Investment Bank 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 76 for a review of Management VaR in 2013.

Primary stress tests

Key tool 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, 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 geographies, products and sectors;
- Emerging Markets – stresses across specific countries including corporate and sovereign credit, interest rates and currency shocks;
- Commodities – adverse commodity price changes across both physical and derivative markets; and
- Securitised Products – stresses to securitised structures and associated hedges.

Primary stresses apply moves to liquid assets incorporating up to a few 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 publish results to senior managers to highlight concentrations and the level of exposures. Primary stress loss limits are applied across the Investment Bank and is a key market risk control.

Secondary stress tests

- Key tool used by management to measure illiquid market risks from extreme market movements or scenarios in each major trading asset class.

Secondary stress tests are used in measuring potential losses arising from illiquid market risks that cannot be hedged or reduced within the time period covered in primary stress tests. Therefore, the extended holding period under stress may compound the estimated losses under a stressed environment which is a more conservative assumption. 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 firm 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.

Combined scenario stresses

- Key tool 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.

The combined scenario stresses apply simultaneous shocks to several risk factors assessed by applying respective changes in 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 Investment Banking trading exposures. Combined scenarios are a useful tool in identifying concentrations of exposures and highlighting areas that may provide some diversification.

The estimated impact on market risk exposures are calculated and reported by the market risk management function on a weekly 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 such as a global recession, deterioration in the availability of liquidity and contagion effects of a slowdown in one of the major economies are examples of combined scenarios. If necessary, market event specific scenarios are also calculated, such as, an unfavourable outcome of a US debt ceiling negotiation and the impact of a disorderly exit of quantitative easing programmes.

See page 78 for a review of combined scenario stresses in 2013.

Traded 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 requirement, in line with the regulatory requirements set out in the Capital Requirements Directive

Measure	Definition
Regulatory Value at Risk (VaR)	An estimate of the potential loss arising from unfavourable market movements calibrated to 99% confidence interval 10 day holding period.
Stressed Value at Risk (SVaR)	An estimate of the potential loss arising from a 12 month period of significant financial stress over a 10 day holding period.
Incremental Risk Charge (IRC)	An estimate of the incremental risk arising from rating migrations and defaults, beyond what is already captured in specific market risk VaR for the non correlation trading portfolio.
All Price Risk (APR)	An estimate of all the material market risk, including rating migration and default for the correlation trading portfolio.

Regulatory VaR

- Estimates the potential loss arising from unfavourable market movements.
- Regulatory VaR differs from the management approach

VaR Variable	Regulatory	Management
Confidence interval	99%	95%
Scope	As approved by the Regulator (PRA)	Barclays' management view of market risk exposures. Includes trading books and banking books exposed to price risk
Look-back period	2 years	2 years
Liquidity Horizon	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. Regulatory VaR levels contribute to the calculation of the market risk RWAs.

Management VaR allows the bank to supervise the total risk within the Investment Bank, including the trading book and some banking books. Management VaR is also utilised for internal capital model (economic capital).

Regulatory VaR is fundamentally the same as the Management VaR (see page 136), with the key differences listed above.

The model includes RNIVs, as described on page 137. See page 79 for significant RNIVs over the year.

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; and
- Regulatory capital is allocated to individual businesses, but not actively used by management to set limits on traded market risk.

As part of CRD III, Barclays is required to compute a market risk capital requirement based on a 10 day, 99% VaR metric calibrated to a period of significant financial stress. This Stressed VaR ('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.

('CRD III') and the PRA's Prudential Sourcebook for Banks, Building Societies and Investment Firms ('BIPRU'). 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.

Regulatory measurements are not used for market risk management purposes due to the scope and model assumptions.

Regulatory measures for traded market risk

There are a number of regulatory measures which Barclays has permission to use in calculating regulatory capital (internal models approval). These are listed below:

The SVaR model is required to be identical to the VaR model used by Barclays, with the exception that the SVaR model must be calibrated to a one-year period of significant financial stress ('the SVaR period'). Barclays selects the SVaR period to be a one-year period that maximises the sum of general market risk Regulatory VaR and specific market risk Regulatory VaR for positions in scope of regulatory approval. The SVaR period is reviewed on a quarterly basis or when required by material changes in market conditions or the trading portfolio.

SVaR cannot be meaningfully backtested and is not sensitive to current market conditions and consequently, it is more difficult to use SVaR as a direct risk management tool as compared to VaR. Many market risk factors with complete historical data over a two 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.

As part of CRD3, Barclays was required to introduce IRC to capture 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.

Barclays 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 Internal Ratings Based approach to measuring credit risk capital, with a fixed correlation between sovereign names.

Barclays 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 in spread and the actual impact is obtained by interpolating or extrapolating the actual spread move from these pre-computed values.

Barclays IRC model assumes that ratings transitions, defaults and any spread increases occur on an instantaneous basis. Consequently there is no need to model a reduction in duration or roll off of positions over the one year horizon.

All Price Risk (APR)

Captures all market risks affecting the correlation trading portfolio.

APR covers the correlation trading portfolio and is intended to capture all risk factors relevant to corporate nth-to-default (on a basket of referenced names) and tranching credit derivatives. The capital requirement is based on a 99.9% confidence interval over a one year holding period. The model generates a scenario based on a Monte Carlo simulation and revalues the portfolio under the simulated market scenario. The model captures the following risk factors in the credit correlation portfolio;

- Default and ratings migration over a one year time horizon
- Credit spread volatility
- Recovery risk – uncertainty of the recoverable value under default
- Correlation risk
- Basis risk – basis between credit indices and its underlying constituents
- Hedge slippage – portfolio rebalancing assumption

Barclays APR model is based on the IRC model but also captures market risks not related to transition or default events, such as movements in credit spreads or correlations. These risk factors are included as part of the Monte Carlo simulation using distributions calibrated to historically observed moves.

Regulatory traded risk measurements summary

Barclays maintains a Trading Book Policy Statement ('TBPS') 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.

Currently all trading books must be managed by either Investment Bank or separately by Absa CIBW. Businesses with trading books are required to document their implementation of trading book standards which define how the Barclays-wide TBPS requirements will be implemented. In particular, businesses are expected to evidence trading intent, for example, by setting and enforcing risk and position limits and defining the consequences of breaching these limits.

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 by the PRA in BIPRU. If any of the criteria specified in the TBPS are not met for a position, then that position must be allocated to the banking book.

Most of Barclays market risk regulatory models are assigned the highest model materiality rating of 'A*'. Consequently, the Regulatory VaR model is subject to annual re-approval at the Executive Models Committee ('EMC'), which is chaired by the Group Chief Risk Officer and the Group Chief Financial Officer. EMC considers evidence of model suitability provided by the model owner, as well as an independent validation conducted by the Group Centre Independent Validation Unit. The following table summarises the models used for market risk regulatory purposes and the applicable regulatory thresholds.

Table 68: 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; £5.0bn	Equally-weighted historical simulation of potential daily P&L arising from market moves	Regulatory VaR is computed with 10 day holding period and 99% confidence level
SVaR	1 model; £9.9bn	Same methodology as used for VaR model	Regulatory SVaR is computed with 10 day holding period and 99% confidence level
IRC	1 model; £2.1bn	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
APR	1 model; £1.0bn	Monte Carlo simulation of P&L arising from ratings migrations and defaults and market-driven movements in spreads and correlations	APR is computed with one year holding period and 99.9% confidence level. As required in CRD III, the APR charge is subject to a floor set with reference to standard rules charge

See page 78 for a review of regulatory measures in 2013.

Regulatory Backtesting

Backtesting is the method by which Barclays 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. Barclays' backtesting process is a regulatory requirement and seeks to estimate the performance of the regulatory VaR model if it had been employed in prior periods. Performance is measured by the number of exceptions to the model i.e. net trading P&L loss in one trading day is greater than the estimated VaR for the same trading day. If exceptions occur regularly (a 99% confidence interval indicates that one exception will occur in 100 days), Barclays' procedures could be underestimating VaR.

Backtesting is performed at a legal entity level and at sub-portfolio levels on Barclays' regulatory VaR model. Regulatory backtesting compares Regulatory VaR at 99% confidence level (1 day holding period equivalent) to a clean and hypothetical P&L as defined in BIPRU 7.10. The consolidated Barclays Bank Plc and Barclays Capital Securities Ltd is the highest level of consolidation for the VaR models that are used in the calculation of regulatory capital.

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 model is consistent with a good working VaR model and is achieved for models that have four or fewer backtesting exceptions in a 12-month period. Backtesting counts the number of days when a loss (as defined by the PRA) exceeds the corresponding VaR estimate, measured at the 99% regulatory confidence level. For the Investment Bank's VaR model, green model status was maintained for 2013.

Backtesting is also performed on management VaR to ensure it remains reasonable and fit for purpose.

The table below shows the VaR backtesting exceptions in 2013. A backtesting exception is generated when a loss is greater than the VaR for a given day.

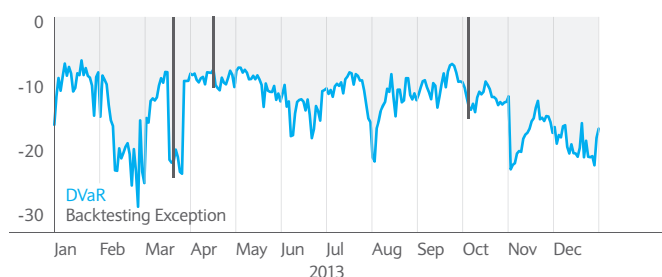
Regulatory portfolios	Total exceptions	Status
Equities	3	Green
Commodities	3	Green
Foreign Exchange	3	Green
Credit Correlation	2	Green
Fixed Income Rates	2	Green
Emerging Markets (excluding credit)	2	Green
Credit Support Annex Aware Discounting Valuation	1	Green
Treasury	0	Green
Client Capital Management	0	Green
Fixed Income Credit	0	Green
Emerging Markets Credit	0	Green
Counterparty Risk Trading Single Name Trading	0	Green

Barclays' approach to managing risks >

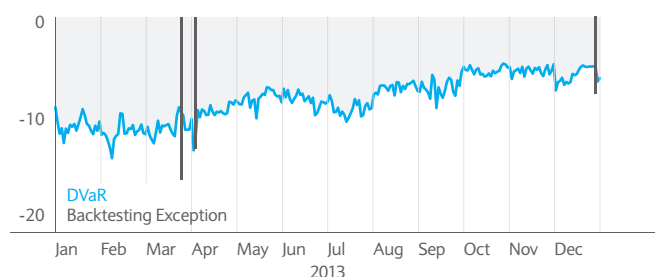
Management of market risk continued

The charts below show VaR for Barclays' regulatory portfolios where at least one exception has occurred during 2013. The black lines indicate losses on the small number of days on which they exceeded the VaR amount.

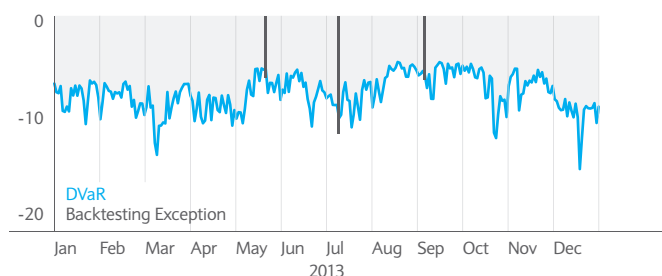
Equities (£m)



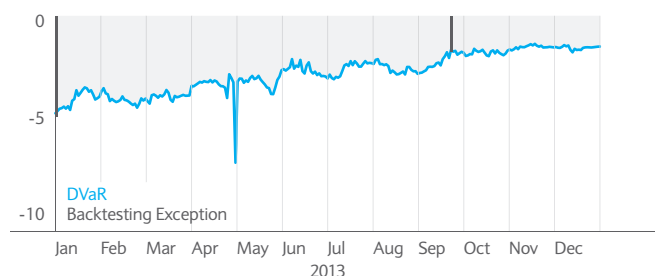
Commodities (£m)



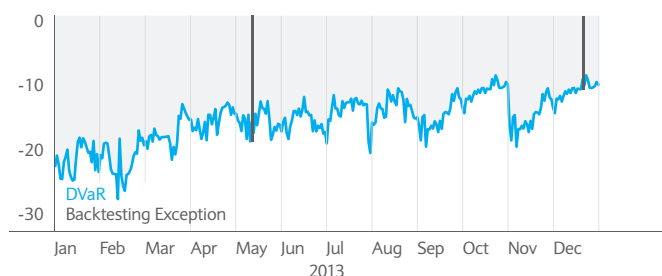
Foreign Exchange (£m)



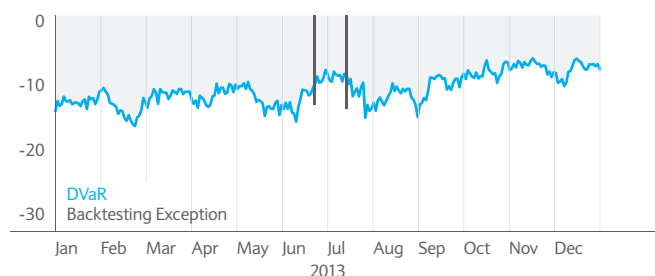
Credit Correlation (£m)



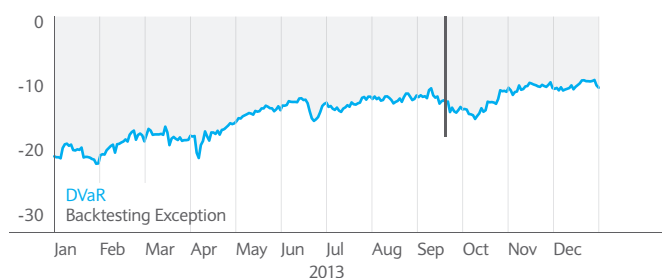
Fixed Income Rates (£m)



Emerging Markets (excluding credit) (£m)



Credit Support Annex Aware Discounting Valuation (£m)



Typical drivers of the exceptions shown above are as follow:

- Exceptional market moves, outside the confidence level at which the model operates, for example, the market volatility caused by the Federal Reserve tapering announcement.
- Risks which are not captured in VaR (for more information on RNIVs see page 137).

Exceptions are reported to internal management and regulators on a regular basis and exceptions are investigated to ensure the model performs as expected. As a result of these investigations our models retained 'green' status.

Traded Market Risk Control

The metrics that Barclays use to measure market risk are controlled through the use of appropriate limit framework. Limits are set at the total Investment Bank portfolio level, risk factor level, for example, interest rate risk, and at business level, for example, Emerging Markets. Stress limits and many book limits, such as foreign exchange and interest rate sensitivity limits, are also used to control risk appetite.

The BFRC ratified firm wide limits are termed A-level limits for total management VaR, risk factor VaR, primary stress and secondary stresses. These are then cascaded down by risk managers in order to meet the firm wide risk appetite.

Barclays' approach to managing risks >

Management of market risk continued

Each A-level limit is set after consideration is given to revenue generation opportunities and overall risk appetite approved by the Board. Compliance with limits is monitored by the independent Risk function in the Investment Bank with oversight provided by Group Market Risk.

Throughout 2013, Group Market Risk continued its ongoing programme of conformance reviews on the Investment Bank's market risk management practices. These reviews are intended to verify the business's conformance with Barclays Market Risk Control Framework and best practices.

Summary of measures for non-traded market risk

Measure	Definition
Annual Earnings at Risk	Impact on earnings of a parallel (upward or downward) movement in interest rates.
Economic Value of Equity (EVE)	Change in the present value of the banking book of a parallel (upward or downward) interest rate shock.
Economic Capital	Economic Capital (EC) is held to protect against unexpected loss (in excess of expected loss) and calculated over a one year time horizon.
Value at Risk (VaR)	An estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for a set period of time.
Stress Testing	Scenario based stress testing using a variety of economic parameters to quantify the impact to P&L and the Balance Sheet under various levels of stress.

The risk in each business is measured and controlled using both an income metric (Annual Earnings at Risk) and value metrics (Economic Value of Equity, Economic Capital and VaR).

Annual Earnings at Risk (AEaR)

AEaR measures the sensitivity of net interest income over the next one year period. It is calculated as the difference between the estimated income using the current yield curve and the lowest estimated income following a parallel increase or decrease in interest rates (200bps), subject to a minimum interest rate of 0%. 200bp shocks are consistent with industry best practise and supported by banking regulators.

The main model assumptions are:

- The balance sheet is kept at the current level i.e. no growth is assumed; and
- Balances are adjusted for an assumed behavioural profile. This includes the treatment of fixed rate loans including mortgages.

AEaR is applied to the entire banking book, including the liquidity buffer and trades to hedge against non-traded market risk. The metric provides a measure of how interest rate risk may impact the Groups Profit & Loss, providing a simple comparison between risk and returns. The main disadvantage of the metric is its short term focus, as it only measures the impact on a position in the first 12 months. In order to counter this, the Group has implemented additional Economic Value risk metrics.

See page 80 for a review of AEaR in 2013.

Economic Value of Equity (EVE)

Economic Value of Equity (EVE) calculates the change in the present value of the banking book for a parallel upward and downward interest rate (200bps) shock. This shock is useful for drawing comparisons across portfolios, and is also a regulatory reporting requirement. Note that the EVE calculation measures sensitivity in terms of present value, while AEaR measures income sensitivity.

The EVE measure is applied to the entire banking book, including the liquidity buffer and trades to hedge against non-traded market risk and covers the full life of transactions and hedges, ensuring the risk over the whole life of positions are considered. The main weaknesses of this model stem from its simplicity. In particular, it does not capture the impact of business growth or of management actions and is based on the balance sheet as at the reporting date.

Traded market risk reporting

Investment Bank market risk managers produce a number of detailed and summary market risk reports daily, weekly, fortnightly and monthly for business and risk managers. These are sent to Group Market Risk for review and a risk summary is presented at the Market Risk Committee and the Investment Bank's Traded Positions Risk Review. The overall market risk profile is also presented to BFRC on a regular basis.

Management of non-traded market risk

Non-Traded Risk Measurement

Barclays uses a range of complementary technical approaches to measure non-traded market risk.

Economic Capital (for recruitment, prepayment and residual risk)

Economic Capital (EC) consistent models are used to measure unexpected losses to a 99.98% confidence interval over a 1 year period which reflects the level of confidence (consistent with the Bank's target AA rating). Within non-traded risk, this measure aims to capture recruitment risk, prepayment risk and residual risk for banking book products. EC metrics typically measure variations in economic value from specific sources of risk, for example, prepayment risk EC for fixed rate mortgages predicts the cost of hedging to reduce any mismatch exposure resulting from the impact of an interest rate shock on customer prepayment levels.

EC is used in the active management of the banking book. Limits are set against EC metrics and breaches trigger mitigating actions to reduce exposure to appropriate levels. EC modelling is typically applied only to fixed rate products and the majority of variable rate and administered rate portfolios are not subject to an EC measure.

As part of the Group's risk appetite and limit framework, limits are set by product and portfolio for the three EC categories across each business unit. Each business unit, in line with Treasury, is tasked with managing the risk to within the levels that in practise involves ensuring any required pre or post hedging takes place in a timely fashion to minimise recruitment and residual risk.

An advantage of EC is that it can calculate unexpected losses to an appropriate degree of confidence given the nature of the risks and covers sources of loss beyond the scope of other models (for instance, AEaR only covers income changes over a one year period; EVE only considers existing business and does not include any dynamic customer behaviour assumptions). The main weaknesses come from necessary simplifying assumptions. In the case of models based on statistical confidence intervals, the choice of the statistical distribution may drive under-prediction of very extreme events (i.e. the real distribution may be "fat-tailed"). To mitigate this, the Group continues to improve its models using long time series of historical data to capture the extreme effects.

See page 81 for a review of EC in 2013.

Value at Risk

Value at Risk (VaR) is an estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for a set period. For internal market risk management purposes, the Investment Bank uses a historical simulation methodology with a two-year equally weighted historical period, at the 95% confidence level for banking book portfolios covered by the measure. This calculation is a present value sensitivity while AEaR is an income sensitivity.

Daily Value at Risk is used to measure residual interest and foreign exchange risks within certain banking book portfolios, following a methodology and approach consistent with that of the trading book.

Quarterly Scaled Value at Risk is used to measure risk in the Liquidity Buffer Investment Portfolio. The calculation uses a 5 year historical period, a 95% confidence level and is scaled from daily to quarterly by a constant of 8.1. The five year historical period is considered to be more reflective of the AFS Banking Book portfolio, i.e. less reactive to current market conditions whilst still capturing the stress period of 2008 and 2009.

Stress Testing

Stress losses are calculated for liquidity buffer portfolio, but not subject to controlled limits.

All Non-traded Market Risk positions are subject to the Banks annual stress testing exercise where scenarios based on economic parameters are used to determine the potential impact of the positions on P&L and the Balance Sheet.

Non-traded Market risk Control

Non-traded market risk is controlled through the use of limits on many of the above risk measures. Limits are set at the total business level and then cascaded down. The total business level limits for AEaR, EVE, EC and VaR are agreed by the Group Market Risk Committee. Compliance with limits is monitored by the respective business market risk team with oversight provided by Group Market Risk.

The interest rate risk for balances with no defined maturity date and an interest rate that is not linked to the base rate is managed by Group Treasury. A series of continuous rolling hedges are used to mitigate the interest rate risk in the banking book.

Non-traded Market risk Reporting

Barclays' Group market risk function produces a number of detailed market risk reports on a daily, weekly, fortnightly and monthly basis, for business and risk managers. A risk summary is presented at the Market Risk Committee.

Asset Management Structural Risk

Asset management structural risk arises where the fee and commission income earned by asset management products is affected by a change in market levels, primarily through the link between income and the value of assets under management. Asset management structural risk mainly resides in Wealth and Investment Management, where the risk is incorporated into the medium term plan and group wide stress test.

Asset management structural risk is subject to Group policy, with limits set and is reported to the Market Risk Committee.

Asset management structural risk is measured using AEaR considering a 30% fall in equity markets and 200bps increase in yields. Group policy is for businesses to monitor and regularly assess potential hedging strategies.

Management of Pension Risk

Pension risk control

As the investment strategy of the UKRF is owned and defined by the Trustees who are independent to the bank, pension risk is not governed by the conventional limit framework observed in traded and non-traded market risk. However, risk and positions are reported monthly to the Market Risk Committee (MRC) and periodically to the Pension Management Group (PMG), Pension Executive Board (PEB) and BFRC.

Group Market Risk is responsible for the ongoing challenge of the risk profile and to that aim will ensure the following:

- At least annual review of all Pension Funds shortfalls;
- Detailed review of liability driven data;
- Ensure a continuous and detailed interaction exists between Group Market Risk and the pension asset manager;
- To conduct, where necessary, any deep dives to ensure a consistent view of the risk positions of the fund.

Pension risk measurements

The following metrics are used to describe pension risk:

- Asset/Liability mismatch under IAS19, Funding and Solvency Rules;
- Asset VaR and liability VaR;
- Total pension risk VaR i.e. which includes potential diversification between assets and liabilities.

The VaR used for pension risk is calibrated at a 95% confidence level, with a one year horizon to reflect the long-term nature of the risk. Whilst the asset portfolio is sensitive to the volatility to any asset class the pension asset manager invests in, the liabilities are mainly exposed to inflation, and interest rates and corporate credit spreads which are the main components of the discount rate.

See page 82 for a review of pension risk in 2013.

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 145.
- A description of the risks incurred in the course of securitisation activities, and how we manage them, is contained on page 146.

Barclays' approach to managing risks >

Management of securitisation exposures

This section discloses information about Barclays' 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.

For the purposes of Pillar 3 disclosures on pages 85 to 97, 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 Barclays or on behalf of a client.

Barclays also undertakes funding transactions for the purposes of generating term liquidity. The nature of these transactions means they are not considered under the UK PRA BIPRU 9 securitisation framework. For that reason, these types of transactions are excluded from the quantitative disclosures on pages 85 to 97. Other types of transactions, for instance certain government-guaranteed transactions, are also outside of the framework and not disclosed in this section.

Objectives of securitisation activities

In the course of its business, Barclays has undertaken securitisations of its own originated assets as well as the securitisation of third party assets via special purpose vehicles, sponsored conduit vehicles and shelf programmes.

Barclays has securitised its own originated assets in order to manage the Group's credit risk position and to generate term liquidity for the Group balance sheet. In addition, Barclays has warehoused assets prior to securitising them at clients' request. Barclays also participates in primary securitisations in commercial mortgage-backed securities (CMBS), agency CMBS and asset-backed securities (ABS), and distributes bonds to clients.

Further, Barclays makes a secondary market for a range of European and American securitised products, including agency residential mortgage-backed securities (RMBS), non-agency RMBS, CMBS and ABS. Barclays also provides derivative transactions to securitisations sponsored by itself and third parties. These transactions are included in Barclays trading book and form part of its market-making activities in interest rate and foreign exchange products.

The role and involvement of Barclays in securitisations in 2013

Barclays adopts the following roles in the securitisation processes in which it is involved:

Originator of assets prior to securitisation

Barclays originates or purchases commercial mortgage loans or asset-backed loans for the purpose of securitisation. The securities are then sold to investors through a broker-dealer subsidiary.

Providing residential mortgage warehousing facilities for third party assets prior to securitisation or exit via whole-loan sale

Barclays provides warehouse financing to third party residential mortgage whole loan originators, largely 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").

Executor of securitisation trades including bond marketing and syndication

Barclays transacts primarily as a principal in investment-grade asset-backed securities (ABS) and commercial mortgage-backed securities (CMBS) with institutional investors and other broker-dealers. Products include consumer ABS (e.g. credit card, student loan and auto), non-traditional ABS (e.g. timeshares, cell towers, whole business

securitisations), asset-backed collateralised debt obligations (ABS CDO), CMBS bonds, commercial real estate collateralised debt obligations (CRE CDO), and Fannie Mae delegated underwriting and servicing bonds (DUS).

Barclays may also originate and purchase commercial mortgage loans for the purpose of securitisation for sale to investors. The Group also transacts directly with government-sponsored entities as placement agent to structure and underwrite or distribute new issues.

The bank may also trade all non-agency prime, alternative-A (Alt-A), and subprime mortgage-backed securities issued by financial institutions on behalf of private label mortgage originators. Products include non-agency pass-through securities, adjustable-rate mortgages (ARMs) and collateralised mortgage obligations (CMOs). The bank can also create re-securitisations of real estate mortgage investment conduits (Re-REMICs) of mortgage-backed securities.

Purchaser of third party securitisations to support client franchise

Barclays may purchase third party securitisations, acting as an investor. In such transactions the Group would not be defined as an originator or sponsor for regulatory purposes.

Sponsoring conduit vehicles

Barclays acts as managing agent and administrative agent of two multi-seller asset-backed commercial paper (ABCP) conduits, Sheffield and Salisbury, through which interests in securitisations of third party-originated assets are funded via the issuance of asset-backed commercial paper. Barclays also funds on its own balance sheet securitisations similar to the ones funded via its sponsored conduits.

From a regulatory perspective, Barclays would be defined primarily as a sponsor of these conduits. In relation to such conduit activity, Barclays may provide all or a portion of the backstop liquidity to the commercial paper, programme-wide credit enhancement and, as appropriate, interest rate and foreign currency hedging facilities. Barclays receives fees for the provision of these services. Barclays currently provides liquidity and programme-wide credit enhancement to two multi-seller conduits: Sheffield Receivables Corporation and Salisbury Receivables Company.

The conduits are vehicles that hold securities classified as available for sale, measured at fair value with changes in fair value recognised through other comprehensive income (OCI) and non-securities classified as loans and receivables, measured at amortised cost on their stand-alone financial statements. They fund the assets through the issuance of asset-backed commercial paper.

Funding transactions to generate term liquidity

Secured funding forms a component of the Group's diversified funding sources providing access to secured market counterparties and complementing the diversification of funding by maturity, currency and geography. Barclays issues asset-backed securities (ABS) and covered bonds that are secured primarily by customer loans and advances. In 2013, Barclays raised secured term funding (including both private and public issuances).

The Group currently manages four primary, on-balance sheet asset-backed funding programmes to obtain term financing for mortgage and credit card lending. 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 the first securitisation programme backed by US domiciled credit card receivables registered with the Securities and Exchange Commission in Q4 2012.

Synthetic transactions

Barclays participates in a number of risk transfer schemes under the UK NewBuy umbrella. These are cash collateralised and insolvency-remote insurance structures which fall under the BIPRU 9 framework for regulatory capital reporting purposes.

Barclays' approach to managing risks >

Management of securitisation exposures continued

Securitisation risks, monitoring and hedging policies

Securitisation exposures are subject to Barclays' credit risk policies and procedures. This includes the requirement to review each exposure on an annual basis, following a detailed initial analysis, with particular focus on the underlying asset performance, key risk drivers and the impact or potential impact on such exposure. Changes to the credit risk profile of securitisation exposures will also be identified through ongoing performance monitoring (including ratings movement which feed the internal risk systems). In addition, periodic stress tests of a sample population of the portfolio as part of ongoing risk management are conducted as well as in response to Group-wide or Regulatory requests. This process is also applied to re-securitisation exposures.

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.

In addition to credit risk, the securitised assets (including those underlying re-securitisations) are subject to liquidity risk, interest rate risk and, in some instances, FX risk. The nature and scale of these risks varies from transaction to transaction - for example, individual retail exposures have very limited liquidity in their own right, but are marketable as a pool or in securitised form. All securitised (and re-securitised) assets are also subject to a degree of operational risk associated with documentation and the collection of cash flows.

In providing warehouse financing, Barclays is exposed to mark-to-market (if counterparty defaults on related margin call) and potential risk related to representations and warranties should it be later 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.

Rating methodologies and ECAs used for securitisations

Barclays employs ratings issued by external credit assessment institutions (ECAs) to risk weight its securitisation exposure where appropriate. The ECAs used are Standard & Poor's, Moody's, Fitch and DBRS.

For each Asset-Backed Commercial Paper (ABCP) transaction, the internal assessment approach (IAA) framework mirrors the ECAI methodology, which also includes Moody's and S&P, who rate the Sheffield and Salisbury programmes. Under the IAA framework, the securitisation exposure must be internally rated, and the Group's internal assessment process must meet certain requirements in order to map its own internal rating to an ECAI. Stress testing on a securitisation structure is performed as prescribed by an ECAI methodology for the relevant ratings level, and is at least as conservative as the published methodology. Stress factors may include, among other factors, asset yields, principal payment rates, losses, delinquency rates and interest rates.

In determining an internal rating, collateral risks are the primary driver and are addressed through the transaction structure and modelled statistical confidence. The analysis reflects Barclays 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. Barclays 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.

Approaches to calculating RWAs

RWAs reported for securitised and re-securitised banking book and trading book assets at 31 December 2013 are calculated in line with UK

PRA rules and guidance, as well as European CRA regulation. Barclays has approval to use, and therefore applies, the IRB approach for the calculation of RWAs. Conduit vehicles are consolidated for accounting but not for regulatory purposes.

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 Barclays has control over the entity. Barclays controls an entity if it has all of the three elements of control which are 1) power over the entity; and 2) exposure, or rights, to variable returns from its involvement with the entity; and 3) the ability to use its power over the entity to affect the amount of Barclays returns.

The consolidation assessment 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.

Typically the securitised assets will have been included on the Group balance sheet and are measured at fair value through P&L, as they are classified as held for trading or are elected at fair value through profit and loss, under the IAS 39 fair value option. However some non-derivative assets held prior to securitisation may qualify as loans and receivables and are measured at amortised cost. When securitised assets have been included on the Group balance sheet it is necessary to consider whether those assets may be removed from the Group balance sheet. Assets which have been transferred to third parties (i.e. an unconsolidated Group entity), will remain on the Group balance sheet, and 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 a significant portion, but not all, of the risks and rewards have been transferred, the asset is derecognised entirely if the transferee has the ability to sell the financial asset, otherwise the asset continues to be recognised only to the extent of the Group's continuing involvement.

Assets may be transferred to a third party through a legal sale or an arrangement that meets the 'passthrough' criteria where the substance of the arrangement is principally that Barclays 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 sale treatment to the extent the Group has no continuing involvement. Where the Group has continuing involvement the assets will continue to be recognised to the extent of the continuing involvement. Gains are recognised to the extent that proceeds that can be measured using observable market data exceed the 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 2013 Annual Report. 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 credit default swap, a credit linked note or a financial guarantee. The accounting policies outlined above will apply to synthetic securitisations.

Management of operational risk

The sources of operational risks, and how those risks are managed, is detailed in this section.

- The types of risks that are classified as operational risks are described on page 148.
- Governance, management and measurement techniques are covered on pages 149 and 150.



Operational Risk Management Overview

Operational Risk is defined as the risk of direct or indirect impacts resulting from human factors, inadequate or failed internal processes and systems or external events. During 2013 the Board Conduct, Reputation and Operational Risk Committee was established and met to consider the impacts that operational risk may have on the Group.

Overview

The management of operational risk has two key objectives:

1. To minimise the impact of losses suffered, both in the normal course of business (small losses) and from extreme events (large losses).
2. To improve the effective management of the Group and strengthen its brand and external reputation.

Barclays is committed to the measurement and management of operational risk and was granted a waiver by the FSA (now the PRA) to operate an Advanced Measurement Approach (AMA) for operational risk under Basel 2, which commenced in January 2008. The majority of the Group calculates regulatory capital requirements using AMA (93% of capital requirements), however, in specific areas we apply the Basic Indicator Approach (7%). Barclays works to benchmark its internal operational risk management and measurement practices with peer banks and to drive the further development of advanced techniques.

Organisation and structure

Barclays is committed to operating within a strong system of internal control that enables business to be transacted and risk taken without exposing itself to unacceptable potential losses or reputational damage. Barclays has an overarching framework that sets out Barclays' approach to internal governance ('the Barclays Guide'). The Barclays Guide establishes the mechanisms and processes by which the Board directs the organisation, through setting the tone and expectations from the top, delegating its authority and monitoring compliance.

A key component of the Barclays Guide is the Enterprise Risk Management Framework (ERMF). The purpose of the ERMF is to identify and set minimum requirements in respect of the main risks to achieving the Group's strategic objectives and to provide reasonable assurance that internal controls are effective. The key elements of the Group's system of internal control, which is aligned to the recommendations of The Committee of Sponsoring Organizations of the Treadway Commission, Internal Control – Integrated Framework (COSO), are set out in the risk control frameworks relating to each of the Group's Key Risks and in the Group Operational Risk Framework.

Operational Risk is one of six Principal Risks in the ERMF and comprises a number of specific Key Risks defined as follows:

- **CyberSecurity:** Risk of loss or detriment to Barclays' business and customers as a result of actions committed or facilitated through the use of networked information systems;
- **External supplier:** Inadequate selection and ongoing management of external suppliers;
- **Financial reporting:** Reporting mis-statement or omission within external financial or regulatory reporting;
- **Fraud:** Dishonest behaviour with the intent to make a gain or cause a loss to others;
- **Information:** Inadequate protection of Barclays' information in accordance with its value and sensitivity;
- **Legal:** Failure to identify and manage legal risks;
- **Payments:** Failure in operation of payments processes;
- **People:** Inadequate people capabilities, and/or performance/reward structures, and/or inappropriate behaviours;
- **Premises & security:** Unavailability of premises (to meet business demand) and/or safe working environments, and inadequate protection of physical assets, employees and customers against external threats;
- **Product:** Inadequate design, assessment and testing of products/services;
- **Regulatory:** Failure or inability to comply fully with the laws, regulations or codes applicable specifically to the financial services industry;
- **Taxation:** Failure to comply with tax laws and practice which could lead to financial penalties, additional tax charges or reputational damage;
- **Technology:** Failure to develop and deploy secure, stable and reliable technology solutions; and
- **Transaction operations:** Failure in the management of critical transaction processes.

These risks may result in financial and/or non-financial impacts including legal/regulatory breaches or reputational damage. For more information on Legal, Regulatory, CyberSecurity, Technology, People and Taxation risks please see pages 136 to 140 of the 2013 Annual Report.

Barclays' approach to managing risks >

Management of operational risk continued

The Operational Risk Framework comprises a number of elements which allow Barclays to manage and measure its Operational risk profile and to calculate the amount of Operational risk capital that Barclays needs to hold to absorb potential losses. The minimum, mandatory requirements for each of these elements are set out in the Group Operational Risk Policies. This framework is implemented across the Group:

- vertically, through the organisational structure with all businesses required to implement and operate an Operational risk framework that meets, as a minimum, the requirements detailed in these operational risk policies; and
- horizontally, with the Group Key Risk Officers required to monitor information relevant to their Key Risk from each Operational risk framework element.

The prime responsibility for the management of operational risk and the compliance with control requirements rests with the business and functional units where the risk arises. Operational risk partners are widely distributed throughout the Group and support these areas, assisting line managers in understanding and challenging the effectiveness of management of risks that they own.

The Operational Risk Director (or equivalent) for each business is responsible for ensuring the implementation of and compliance with Group Operational Risk policies.

The Group Operational Risk Director 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 & Control Committee (OR&CC) is the senior executive body responsible for the oversight and challenge of Operational Risk and the control environment in Barclays. The outputs of the OR&CC are presented to the Board Conduct, Reputation and Operational Risk Committee (BCRORC).

In addition, specific operational risk committees or governance and control committees at the business level, monitor the risk and control environment. The OR&CC receives reports from these committees and considers Group-significant control issues and their remediation. In addition, the OR&CC presents control issues to the Board Audit Committee (BAC).

Businesses 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 to their business objectives and the effectiveness of key controls, control issues of Group-level significance, operational risk events and a review of scenarios and capital. Specific reports are prepared on a regular basis for OR&CC, BCRORC and BAC.

The Internal Audit function provides further independent review and challenge of the Group's operational risk management controls, processes and systems and reports to the Board and senior management.

Operational risk management

The Barclays Operational Risk framework is a key component of the Enterprise Risk Management Framework and has been designed to 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 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

Barclays identifies and assesses all material risks within each business and evaluates the key controls in place to mitigate those risks. Managers in the businesses use self-assessment techniques to identify risks, evaluate the effectiveness of key controls in place and assess whether the risks are effectively managed within business risk appetite. The businesses are then able to make decisions on what, if any, action is required to reduce the level of risk to Barclays. These risk assessments are monitored on a regular basis to ensure that each business continually understands the risks it faces.

Risk events

An operational risk event is any circumstance where, through the lack or failure of a control, Barclays has actually, or could have, made a loss. The definition includes situations in which Barclays could have made a loss, but in fact made a gain, as well as incidents resulting in reputational damage or regulatory impact only.

A standard threshold is used across the Group for reporting risk events and part of the analysis includes the identification of improvements to processes or controls, to reduce the recurrence and/or magnitude of risk events. For significant events, both financial and non-financial, this analysis includes the completion of a formal lessons learnt.

Barclays also uses a database of external risk events which are publicly available and is a member of the Operational RiskData eXchange (ORX), a not-for-profit association of international banks formed to share anonymous loss data information. Barclays uses this external loss information to support and inform risk identification, assessment and measurement.

Key indicators

Key Indicators (KIs) are metrics which allow Barclays to monitor its operational risk profile. KIs include measurable thresholds that reflect the risk appetite of the business. KIs are monitored to alert management when risk levels exceed acceptable ranges or risk appetite levels and drive timely decision making and actions.

Operational risk appetite

Barclays approach to determining its operational risk appetite combines both quantitative measures and qualitative judgement, in order to best reflect the nature of non-financial risks.

The monitoring and tracking of operational risk measures is supplemented with qualitative review and discussion at senior management executive committees on the action being taken to improve controls and reduce risk to an acceptable level.

Operational risk appetite is aligned to the Group's Risk Appetite Framework. The Board Conduct, Reputation and Operational Risk Committee considers and recommends to the Board for approval, via the Enterprise Wide Risk Committee, the Group's risk appetite statement for Operational Risk based on performance in the current year and the projections for financial volatility the following year.

Reporting

The ongoing monitoring and reporting of operational risk is a key component of the Barclays Operational Risk Framework. Reports are used by the Operational Risk function and by Business management to understand, monitor, manage and control operational risks and losses.

The operational risk profile is reviewed by senior management at the Operational Risk & Control Committee and the Board at the Board Conduct, Reputation and Operational Risk Committee.

Key risk scenarios

Key Risk Scenarios are a summary of the extreme potential risk exposure for each Key Risk in each business and function, including an assessment of the potential frequency of risk events, the average size of losses and three extreme scenarios. The Key Risk Scenario assessments are a key input to the Advanced Measurement Approach calculation of regulatory and economic capital requirements (see following section on Operational Risk Measurement). The assessment is performed by Key Risk Officers, taking into account analysis of internal and external loss experience, key risk indicators, risk and control self-assessments and other risk information. The businesses and functions analyse potential extreme scenarios, considering:

- the circumstances and contributing factors that could lead to an extreme event;
- the potential financial and non-financial impacts (eg reputational damage); and
- the 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 (eg crisis management procedures, business continuity or disaster recovery plans).

Management may then conclude whether the potential risk is acceptable (within appetite) or whether changes in risk management control or business strategy are required.

Operational risk measurement

Barclays assesses its operational risk capital requirements using an Advanced Measurement Approach. The approach involves estimating the potential range of losses that could be incurred in a year from operational risk events, using statistical distributions. Regulatory capital requirements are set to cover 99.9% of the estimated losses. Barclays also assesses its economic capital requirements to cover 99.98% of the estimated losses that exceed the typical losses (diversified across all risk classes).

The potential frequency and severity of losses is estimated for each Key Risk (within the Operational Risk category) in each business and function. The potential range of individual loss severities is represented by a statistical distribution, estimated from the average loss size and three extreme scenarios (from Key Risk Scenarios), as well as loss data from the Operational Riskdata eXchange (ORX).

The capital calculation also takes into account the possibility of correlations between operational risk losses occurring in a year (between risks within businesses and functions and between businesses and functions).

In certain joint ventures and associates, Barclays may not be able to apply the AMA and so uses the Basic Indicator Approach (BIA) to calculate operational risk capital. With the BIA, Barclays is required to hold a certain percentage, currently 15% of average gross income in capital. Areas where the BIA is applied are: the Africa RBB businesses, including Barclays Bank Mozambique and National Bank of Commerce (Tanzania); Barclays Bank PLC Pakistan; the new to bank business activities acquired from Lehman Brothers; and the portfolios of assets purchased from Woolworths Financial Services in South Africa, Citi Cards Portugal and Italy, Standard Life Bank, ING Direct, MBNA Corporate Cards, Upromise, RCI, Egg Cards, EdCon, Sallie Mae and Ameriprice.

Insurance

As part of its risk management approach, the Group also uses insurance to mitigate the impact of some operational risks.

Appendix

This appendix provides a further analysis of the parameters driving the risk weighted asset calculations for the credit risk exposures in the banking book, subject to AIRB and FIRB.

- The IRB calculation is a non linear function that uses parameters other than those driving default grade (DG), such as loss given default (LGD) and maturity. Therefore, risk weights may sometimes be higher in the upper DG bands compared to those below.
- Large exposure movements between DG bands are observed in the normal course of business, due to the very granular nature of these bands.

Appendix

Detailed credit risk IRB grades

Table 69: IRB banking book data for central governments and central banks

Totals agree to FIRB and AIRB RWAs and EAD for central governments or central banks lines in table 14 on page 33. It differs from disclosures in table 28a on page 53 as the latter includes counterparty credit risk.

Obligor Grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	97,271	0.01%	45%	7,459	8%
Default grade 2	254	0.03%	45%	55	22%
Default grade 3	2,431	0.03%	45%	244	10%
Default grade 4	223	0.09%	45%	55	25%
Default grade 5	3	0.14%	48%	1	26%
Default grade 6	1,210	0.18%	21%	224	18%
Default grade 7	–	0.00%	0%	–	0%
Default grade 8	5	0.26%	45%	2	37%
Default grade 9	200	0.39%	45%	96	48%
Default grade 10	21	0.41%	45%	19	92%
Default grade 11	251	0.51%	50%	160	64%
Default grade 12	9	0.74%	45%	11	120%
Default grade 13	–	0.00%	0%	–	0%
Default grade 14	–	0.00%	0%	–	0%
Default grade 15	0	2.72%	45%	0	132%
Default grade 16	9	3.75%	45%	13	145%
Default grade 17	–	0.00%	0%	–	0%
Default grade 18	3	6.96%	68%	8	242%
Default grade 19	1	10.00%	68%	2	282%
Default grade 20	11	12.27%	73%	46	405%
Default grade 21	–	0.00%	0%	–	0%
In default	–	0.00%	0%	–	0%
Total	101,902	0.01%	45%	8,395	8%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	117,489	0.00%	45%	4,819	4%
Default grade 2	3,837	0.02%	45%	423	11%
Default grade 3	406	0.04%	42%	78	19%
Default grade 4	1,857	0.08%	45%	540	29%
Default grade 5	2,193	0.13%	30%	733	33%
Default grade 6	236	0.18%	45%	86	36%
Default grade 7	–	0.00%	0%	–	0%
Default grade 8	231	0.29%	44%	91	40%
Default grade 9	1	0.37%	5%	–	6%
Default grade 10	–	0.00%	0%	–	0%
Default grade 11	255	0.52%	50%	185	73%
Default grade 12	24	0.61%	45%	26	109%
Default grade 13	10	1.25%	45%	11	106%
Default grade 14	–	0.00%	0%	–	0%
Default grade 15	25	2.46%	68%	61	245%
Default grade 16	6	3.84%	52%	10	152%
Default grade 17	–	0.00%	0%	–	0%
Default grade 18	38	7.03%	45%	79	211%
Default grade 19	–	0.00%	0%	–	0%
Default grade 20	–	0.00%	0%	–	0%
Default grade 21	–	0.00%	0%	–	0%
In default	–	0.00%	0%	–	0%
Total	126,608	0.01%	45%	7,142	6%

Appendix >

Detailed credit risk IRB grades continued

Table 70: IRB banking book data for institutions

Totals agree to FIRB and AIRB RWAs and EAD for the institutions line in table 14 on page 33. It differs from disclosures in table 28b on page 54 as the latter includes counterparty credit risk.

Obligor grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	880	0.00%	45%	54	6%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	29,571	0.03%	35%	3,024	10%
Default grade 4	1,051	0.07%	47%	219	21%
Default grade 5	1,191	0.12%	44%	289	24%
Default grade 6	296	0.17%	44%	119	40%
Default grade 7	383	0.21%	42%	120	31%
Default grade 8	160	0.28%	11%	21	13%
Default grade 9	132	0.34%	53%	81	61%
Default grade 10	152	0.44%	45%	109	72%
Default grade 11	27	0.55%	40%	15	55%
Default grade 12	30	0.83%	51%	18	60%
Default grade 13	4	1.38%	43%	4	102%
Default grade 14	0	1.56%	45%	0	113%
Default grade 15	6	2.52%	45%	8	131%
Default grade 16	1	3.38%	45%	2	125%
Default grade 17	0	5.40%	60%	0	192%
Default grade 18	0	7.50%	46%	0	188%
Default grade 19	0	10.00%	51%	0	139%
Default grade 20	0	15.31%	53%	0	262%
Default grade 21	–	0.00%	0%	–	0%
In default	51	100.00%	21%	89	175%
Total	33,935	0.19%	36%	4,172	12%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	70	0.00%	45%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	19,975	0.03%	37%	2,158	11%
Default grade 4	1,513	0.07%	45%	323	21%
Default grade 5	1,257	0.12%	46%	373	30%
Default grade 6	569	0.19%	16%	95	17%
Default grade 7	33	0.22%	45%	11	33%
Default grade 8	64	0.28%	50%	38	60%
Default grade 9	67	0.35%	39%	26	39%
Default grade 10	215	0.42%	43%	104	48%
Default grade 11	9	0.55%	59%	7	76%
Default grade 12	86	0.70%	59%	128	150%
Default grade 13	–	0.00%	0%	–	0%
Default grade 14	1	1.84%	37%	1	75%
Default grade 15	1	2.52%	45%	2	127%
Default grade 16	–	0.00%	0%	–	0%
Default grade 17	–	0.00%	0%	–	0%
Default grade 18	–	0.00%	0%	–	0%
Default grade 19	14	9.23%	53%	35	246%
Default grade 20	5	15.00%	36%	9	166%
Default grade 21	–	0.00%	0%	–	0%
In default	116	100.00%	59%	195	168%
Total	23,995	0.54%	38%	3,505	15%

Table 71: IRB banking book data for corporates

Totals differ from FIRB and AIRB RWAs and EAD for the corporates line in table 14 on page 33. This is because exposures treated under the slotting approach are not included in the below. They also differ from disclosures in table 28c on page 55 as the latter includes counterparty credit risk.

Obligor grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	1,302	0.00%	45%	48	4%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	38,061	0.03%	34%	5,462	14%
Default grade 4	20,924	0.07%	35%	4,983	24%
Default grade 5	11,022	0.12%	32%	3,243	29%
Default grade 6	8,141	0.17%	38%	3,157	39%
Default grade 7	4,870	0.22%	41%	2,294	47%
Default grade 8	3,680	0.27%	41%	1,888	51%
Default grade 9	5,527	0.34%	41%	3,184	58%
Default grade 10	4,735	0.45%	40%	2,938	62%
Default grade 11	3,494	0.55%	40%	2,400	69%
Default grade 12	10,489	0.86%	37%	8,023	76%
Default grade 13	3,864	1.37%	41%	3,961	103%
Default grade 14	3,469	1.84%	31%	2,737	79%
Default grade 15	5,045	2.64%	30%	4,242	84%
Default grade 16	3,480	3.72%	33%	3,795	109%
Default grade 17	1,713	5.32%	37%	2,284	133%
Default grade 18	1,451	7.45%	35%	1,805	124%
Default grade 19	567	9.71%	22%	510	90%
Default grade 20	449	14.70%	30%	614	137%
Default grade 21	413	27.95%	29%	651	158%
In default	1,720	100.00%	41%	2,775	161%
Total	134,416	2.05%	36%	60,994	45%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	700	0.01%	45%	23	3%
Default grade 2	460	0.02%	45%	40	9%
Default grade 3	38,168	0.03%	28%	4,485	12%
Default grade 4	18,767	0.07%	34%	4,001	21%
Default grade 5	14,693	0.12%	30%	3,890	26%
Default grade 6	7,121	0.17%	34%	2,498	35%
Default grade 7	5,123	0.22%	39%	2,356	46%
Default grade 8	3,829	0.27%	39%	1,946	51%
Default grade 9	5,867	0.35%	40%	3,310	56%
Default grade 10	4,641	0.45%	40%	2,789	60%
Default grade 11	3,659	0.55%	43%	2,651	72%
Default grade 12	13,484	0.87%	38%	10,191	76%
Default grade 13	3,703	1.35%	40%	3,322	90%
Default grade 14	5,645	1.82%	34%	4,862	86%
Default grade 15	7,368	2.62%	38%	8,876	120%
Default grade 16	3,283	3.72%	28%	2,767	84%
Default grade 17	2,142	5.29%	31%	2,170	101%
Default grade 18	1,536	7.45%	25%	1,467	95%
Default grade 19	1,412	10.00%	29%	1,559	110%
Default grade 20	695	14.15%	33%	1,047	151%
Default grade 21	1,047	28.62%	34%	1,907	182%
In default	2,821	100.00%	43%	3,881	138%
Total	146,164	2.95%	33%	70,038	48%

Appendix >

Detailed credit risk IRB grades continued

Table 72: IRB data for secured retail

Totals agree to AIRB RWAs and EAD for the secured by real estate collateral line in table 14 on page 33 and table 29 on page 57.

Obligor grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	7,563	0.03%	19%	198	3%
Default grade 4	7,485	0.08%	22%	457	6%
Default grade 5	10,218	0.12%	23%	1,059	10%
Default grade 6	5,923	0.17%	22%	702	12%
Default grade 7	2,638	0.22%	14%	255	10%
Default grade 8	2,882	0.28%	14%	291	10%
Default grade 9	18,911	0.37%	9%	1,232	7%
Default grade 10	17,670	0.45%	12%	1,698	10%
Default grade 11	18,083	0.55%	10%	1,706	9%
Default grade 12	53,412	0.79%	12%	7,747	15%
Default grade 13	6,185	1.36%	15%	1,599	26%
Default grade 14	4,390	1.80%	15%	1,284	29%
Default grade 15	4,300	2.52%	18%	1,863	43%
Default grade 16	2,141	3.53%	16%	1,315	61%
Default grade 17	2,415	5.15%	18%	1,585	66%
Default grade 18	768	7.54%	16%	560	73%
Default grade 19	320	9.94%	14%	246	77%
Default grade 20	643	14.69%	19%	729	113%
Default grade 21	1,967	44.68%	19%	2,165	110%
In default	4,443	100.00%	19%	4,712	106%
Total	172,357	3.88%	14%	31,403	18%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	7,334	0.03%	17%	163	2%
Default grade 4	7,676	0.07%	22%	412	5%
Default grade 5	8,809	0.12%	25%	833	9%
Default grade 6	3,950	0.18%	21%	434	11%
Default grade 7	5,058	0.21%	18%	466	9%
Default grade 8	2,948	0.28%	14%	260	9%
Default grade 9	18,324	0.37%	9%	1,079	6%
Default grade 10	17,774	0.45%	13%	1,766	10%
Default grade 11	17,307	0.55%	11%	1,692	10%
Default grade 12	52,459	0.80%	12%	7,511	14%
Default grade 13	8,039	1.34%	14%	1,819	23%
Default grade 14	4,540	1.81%	15%	1,367	30%
Default grade 15	3,738	2.52%	17%	1,971	53%
Default grade 16	2,558	3.57%	15%	1,138	45%
Default grade 17	2,551	5.29%	18%	1,647	65%
Default grade 18	1,398	7.57%	13%	823	59%
Default grade 19	704	9.37%	17%	573	81%
Default grade 20	786	15.11%	18%	835	106%
Default grade 21	1,982	46.20%	20%	2,078	105%
In default	3,275	100.00%	22%	2,549	78%
Total	171,210	3.33%	14%	29,416	17%

Table 73: IRB data for revolving retail

Totals agree to AIRB RWAs and EAD for the qualifying revolving retail line in table 14 on page 33 and table 29 on page 57.

Obligor grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	7,726	0.03%	77%	188	2%
Default grade 4	3,533	0.07%	79%	193	5%
Default grade 5	2,423	0.12%	80%	198	8%
Default grade 6	1,794	0.17%	81%	208	12%
Default grade 7	1,340	0.22%	83%	203	15%
Default grade 8	1,037	0.27%	81%	180	17%
Default grade 9	1,534	0.34%	80%	311	20%
Default grade 10	1,316	0.45%	81%	338	26%
Default grade 11	1,000	0.55%	81%	301	30%
Default grade 12	3,941	0.87%	81%	1,658	42%
Default grade 13	1,760	1.36%	81%	1,057	60%
Default grade 14	1,761	1.81%	86%	1,396	79%
Default grade 15	1,561	2.55%	87%	1,636	105%
Default grade 16	2,041	3.92%	83%	2,410	118%
Default grade 17	838	5.29%	89%	1,445	172%
Default grade 18	498	7.38%	90%	1,068	215%
Default grade 19	269	9.83%	89%	678	253%
Default grade 20	242	15.20%	88%	740	306%
Default grade 21	404	40.58%	89%	1,461	362%
In default	1,671	100.00%	62%	1,018	61%
Total	36,689	6.06%	80%	16,687	45%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	6,572	0.03%	79%	142	2%
Default grade 4	3,118	0.07%	79%	143	5%
Default grade 5	2,549	0.12%	79%	178	7%
Default grade 6	1,762	0.17%	80%	170	10%
Default grade 7	1,298	0.22%	82%	162	12%
Default grade 8	1,071	0.27%	82%	158	15%
Default grade 9	1,694	0.35%	81%	296	17%
Default grade 10	1,244	0.45%	82%	272	22%
Default grade 11	1,005	0.55%	81%	255	25%
Default grade 12	4,384	0.88%	81%	1,595	36%
Default grade 13	1,376	1.36%	85%	727	53%
Default grade 14	1,559	1.82%	87%	1,049	67%
Default grade 15	1,425	2.54%	88%	1,235	87%
Default grade 16	2,168	3.85%	83%	2,190	101%
Default grade 17	861	5.26%	89%	1,255	146%
Default grade 18	498	7.39%	90%	889	179%
Default grade 19	282	9.88%	89%	599	213%
Default grade 20	290	14.30%	89%	748	258%
Default grade 21	357	40.00%	88%	1,092	306%
In default	1,820	100.00%	63%	956	53%
Total	35,333	6.66%	81%	14,111	40%

Table 74: IRB data for SME exposures

Totals agree to AIRB RWAs and EAD for the small and medium enterprises line in table 14 on page 33 and to table 29 on page 57.

Obligor grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	901	0.03%	31%	76	8%
Default grade 4	328	0.07%	26%	33	10%
Default grade 5	269	0.12%	33%	40	15%
Default grade 6	238	0.18%	37%	46	19%
Default grade 7	200	0.22%	36%	44	22%
Default grade 8	190	0.27%	34%	43	22%
Default grade 9	382	0.35%	39%	99	26%
Default grade 10	337	0.44%	39%	95	28%
Default grade 11	273	0.55%	40%	100	37%
Default grade 12	1,268	0.88%	40%	542	43%
Default grade 13	579	1.37%	46%	294	51%
Default grade 14	670	1.86%	41%	381	57%
Default grade 15	859	2.64%	44%	531	62%
Default grade 16	720	3.71%	39%	457	63%
Default grade 17	420	5.35%	44%	303	72%
Default grade 18	386	7.52%	42%	282	73%
Default grade 19	159	9.97%	47%	140	88%
Default grade 20	199	14.93%	47%	203	102%
Default grade 21	274	29.83%	43%	331	121%
In default	584	100.00%	23%	1,783	305%
Total	9,236	9.20%	38%	5,823	63%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	602	0.03%	32%	46	8%
Default grade 4	414	0.07%	26%	38	9%
Default grade 5	259	0.12%	29%	34	13%
Default grade 6	242	0.18%	29%	37	15%
Default grade 7	243	0.22%	40%	58	24%
Default grade 8	212	0.27%	35%	48	23%
Default grade 9	392	0.35%	39%	103	26%
Default grade 10	388	0.44%	39%	115	30%
Default grade 11	305	0.55%	39%	109	36%
Default grade 12	1,397	0.89%	43%	627	45%
Default grade 13	590	1.38%	50%	303	51%
Default grade 14	685	1.85%	42%	406	59%
Default grade 15	890	2.61%	48%	611	69%
Default grade 16	661	3.74%	44%	461	70%
Default grade 17	430	5.39%	45%	325	76%
Default grade 18	252	7.54%	50%	220	88%
Default grade 19	348	9.97%	43%	274	79%
Default grade 20	251	14.29%	48%	257	102%
Default grade 21	245	29.82%	48%	330	135%
In default	691	100.00%	25%	2,064	299%
Total	9,497	10.16%	40%	6,466	68%

Table 75: IRB data for other unsecured retail exposures

Totals agree to AIRB RWAs and EAD for the other retail line in table 14 on page 33 and table 29 on page 57.

Obligor grade	EAD post-CRM £m	Average probability of default %	Average loss given default £m	Risk weighted assets £m	Average risk weights £m
As at 31.12.13					
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	41	0.03%	62%	3	7%
Default grade 4	36	0.09%	48%	4	11%
Default grade 5	118	0.11%	55%	19	16%
Default grade 6	36	0.18%	85%	12	33%
Default grade 7	40	0.23%	88%	16	41%
Default grade 8	65	0.28%	81%	28	43%
Default grade 9	168	0.34%	82%	84	50%
Default grade 10	323	0.46%	60%	140	43%
Default grade 11	250	0.54%	74%	148	59%
Default grade 12	1,306	0.92%	78%	1,053	81%
Default grade 13	692	1.36%	72%	606	88%
Default grade 14	1,053	1.84%	68%	961	91%
Default grade 15	1,539	2.54%	59%	1,304	85%
Default grade 16	943	3.65%	70%	1,149	122%
Default grade 17	478	5.31%	71%	534	112%
Default grade 18	308	7.62%	66%	337	109%
Default grade 19	148	9.55%	69%	178	121%
Default grade 20	349	15.24%	61%	447	128%
Default grade 21	224	43.18%	77%	405	181%
In default	920	100.00%	80%	709	77%
Total	9,037	13.85%	70%	8,137	90%
As at 31.12.12					
	£m	%	£m	£m	£m
Default grade 1	–	0.00%	0%	–	0%
Default grade 2	–	0.00%	0%	–	0%
Default grade 3	49	0.03%	62%	3	7%
Default grade 4	39	0.09%	44%	4	10%
Default grade 5	119	0.11%	53%	18	15%
Default grade 6	30	0.17%	84%	10	33%
Default grade 7	31	0.23%	89%	13	41%
Default grade 8	58	0.28%	80%	25	43%
Default grade 9	163	0.34%	82%	81	50%
Default grade 10	351	0.46%	58%	146	42%
Default grade 11	262	0.54%	74%	155	59%
Default grade 12	1,500	0.93%	76%	1,186	79%
Default grade 13	665	1.35%	79%	634	95%
Default grade 14	1,143	1.84%	68%	1,033	90%
Default grade 15	1,643	2.57%	57%	1,337	81%
Default grade 16	898	3.66%	68%	1,116	124%
Default grade 17	489	5.31%	67%	518	106%
Default grade 18	352	7.68%	62%	358	102%
Default grade 19	158	9.52%	63%	175	111%
Default grade 20	412	15.36%	60%	514	125%
Default grade 21	258	42.36%	76%	464	180%
In default	1,054	100.00%	79%	635	60%
Total	9,674	14.66%	69%	8,425	87%

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