



Pillar 3 Report 2015

rbs.com

Pillar 3 Report 2015

Contents	Page
Presentation of information	3
Forward-looking statements	3
Basis of disclosure	3
Key metrics and disclosure roadmap	3
Regulatory framework	4
Pillar 1 - Minimum capital requirements	4
Pillar 2 - Supervisory review process	5
Pillar 3 - Market discipline	5
Regulatory and statutory consolidation	6
Regulatory hierarchy	6
Capital and leverage: RBS and significant subsidiaries	7
RWAs, minimum capital requirements and leverage	7
Capital resources	12
Accounting to regulatory consolidation	14
Capital instruments	15
Credit risk	18
Framework, models and definitions	18
- Measurement of credit RWAs under CRR	18
- Credit risk models	18
- Modelling framework	20
- Credit risk tables - roadmap and definitions	20
Total credit risk	22
- Balance sheet to EAD bridge	28
Non-counterparty credit risk	40
Credit risk mitigation	45
Asset quality analysis of non-counterparty credit risk exposures	47
Expected loss and impairment	61
Probability of default and exposure at default	62
Loss given default	63
Past due and impaired assets	64
Counterparty credit risk	67
Securitisation	71
Framework, roles and definitions	71
- Definitions	71
- Objectives and roles	71
- Risk management	73
- Regulatory treatment	76
- Calculation of risk-weighted exposures	76
Summary of accounting policies including derecognition	76
SSPEs used by RBS	77
Securitisation exposures: retained and purchased	78
Securitisation outstanding amounts	83
Appendices	
Appendix 1 - Transitional own funds (CRR Delegated Act Template)	84
Appendix 2 - Leverage exposures (CRR Delegated Act Template)	88
Appendix 3 - Asset encumbrance	90
Appendix 4 - CRR roadmap	91
Glossary	
Acronyms	97
Key terms	98
Charts	Page
Chart 1: Minimum capital requirements	4
Chart 2: Regulatory hierarchy	6

Pillar 3 Report 2015

Tables	Page
Capital and leverage: RBS and significant subsidiaries	
CAP 1 RBS capital and leverage ratios - CRR end point and PRA transitional bases	7
CAP 2 RBS and significant subsidiaries - Capital and leverage ratios on a PRA transitional basis	8
CAP 3 RBS and significant subsidiaries - RWAs and capital requirements by risk type	8
CAP 4 RBS and significant subsidiaries - Non-counterparty credit risk minimum capital requirements	10
CAP 5 RBS and significant subsidiaries - Market risk minimum capital requirements	11
CAP 6 RBS and significant subsidiaries - Capital resources	12
CAP 7 RBS - Accounting to regulatory consolidation bridge	14
CAP 8 RBS and significant and other subsidiaries - Capital instruments	15
Credit risk	
CR 1 Credit risk RWA density by RBS sector cluster and regulatory approach	22
CR 2 Total credit risk EAD, RWAs and minimum capital requirements by RBS sector cluster	26
CR 3 Balance sheet to EAD bridge	28
CR 4 Total credit risk EAD by RBS sector cluster, geographical region and residual maturity	30
CR 5 Credit risk EAD and RWAs by segment and by regulatory approach and CRR exposure class	31
CR 6 Credit risk EAD and RWAs by significant subsidiary by regulatory approach and CRR exposure class	35
CR 7 Credit risk EAD, RWAs and minimum capital requirements by regulatory approach and CRR exposure class	38
CR 8 Non-counterparty credit risk EAD pre CRM RBS sector cluster and CRR exposure class roadmap	40
CR 9 Non-counterparty credit risk by exposure class and geographical region	42
CR 10 Non-counterparty credit risk by exposure class and residual maturity	43
CR 11 Incorporation of credit risk mitigants within IRB risk parameters	45
CR 12 Non-counterparty credit risk exposures covered by guarantees and credit derivatives	45
CR 13 Non-counterparty credit risk exposures covered by eligible financial collateral (STD approach)	46
CR 14 IRB exposures: AQ band mapping to PD range and S&P ratings	47
CR 15 Total IRB non-counterparty credit risk exposures post CRM by AQ band	48
CR 16 Sovereign IRB non-counterparty credit risk exposures post CRM by AQ band	49
CR 17 Institutions IRB non-counterparty credit risk exposures post CRM by AQ band	50
CR 18 Corporates IRB non-counterparty credit risk exposures post CRM by AQ band	51
CR 19 Corporates under the supervisory slotting approach post CRM by AQ category	52
CR 20 Retail IRB non-counterparty credit risk exposures post CRM by AQ band	54
CR 21 Equity exposures calculated using the IRB approach post CRM by AQ band	57
CR 22 Equity exposures post CRM calculated using the simple risk-weight approach	58
CR 23 STD exposures, credit quality steps mapping to external credit gradings	59
CR 24 Total standardised non-counterparty credit risk exposure by credit quality step	59
CR 25 Expected loss and impairment charge	61
CR 26 Estimated probability of default, actual default rates and EAD outcomes versus predictions	62
CR 27 Loss outcomes versus predictions	63
CR 28 Past due and impaired assets and provisions by industry sector	64
CR 29 Past due and impaired assets and provisions by geographic area	65
CR 30 Loan impairment provisions flow statement	66
CR 31 Counterparty credit risk exposures by regulatory approach, calculation method and product type	67
CR 32 Counterparty credit risk EAD by AQ band under the IRB approach (excluding the supervisory slotting approach)	68
CR 33 Netting and collateralisation impact on OTC and exchanged-traded derivatives under the mtm method	69
Securitisation	
SEC 1 Exposure, RWAs and minimum capital requirements by regulatory approach	78
SEC 2 Exposure and minimum capital requirements by regulatory approach and risk-weightings	79
SEC 3 Exposure by risk-weightings by underlying exposure type	80
SEC 4 Exposures by role, by on and off-balance sheet	81
SEC 5 Exposures subject to market risk capital requirements	82
SEC 6 Securitisation positions retained from origination and sponsorship - outstanding and past due amounts	83

Pillar 3 Report 2015

Presentation of information

Forward-looking statements

This document contains certain 'forward-looking statements' as that term is defined in the United States Private Securities Litigation Reform Act of 1995 with respect to the financial condition, results of operations and business of The Royal Bank of Scotland Group plc. Generally, words such as 'may', 'could', 'will', 'expect', 'intend', 'estimate', 'anticipate', 'believe', 'plan', 'seek', 'continue', 'project', 'should', 'probability', 'risk', 'value-at-risk', 'target', 'goal', 'objective', 'endeavour', 'outlook', 'optimistic' and 'prospects' or similar expressions or variations on such expressions identify forward-looking statements.

Any forward-looking statements set out herein represent RBS's expectations or beliefs concerning future events and involve known and unknown risks and uncertainty that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Factors that could cause or contribute to differences in current expectations include, but are not limited to, legislative, fiscal and regulatory developments, accounting standards, competitive conditions, technological developments, exchange rate fluctuations and general economic conditions. For further risks and uncertainties faced by RBS that may impact the statements set out in this document, refer to the 2015 Annual Report and Accounts (ARA) and any other interim or updated information published by RBS.

Any forward-looking statements set out herein speak only as at the date of this document. Except as required by the Prudential Regulation Authority (PRA), the London Stock Exchange or other applicable law or regulation, RBS does not have any obligation or responsibility to update or revise publicly any forward-looking statements, whether as a result of new information, further events or circumstances or otherwise, and expressly disclaims any obligation to do so.

Basis of disclosure

The Pillar 3 disclosures made by The Royal Bank of Scotland Group plc and its consolidated subsidiaries (together RBS) are designed to comply with Capital Requirements Regulation (CRR). They should be read in conjunction with the 2015 ARA, approved by the Board on 25 February 2016.

There are important differences between RBS's accounting disclosures and the disclosures required by the Capital Requirements Directive (CRD) presented in this report, summarised as follows:

- The disclosures in this report are presented on a regulatory, rather than an accounting basis of consolidation. Therefore, these disclosures may not be directly comparable to other external disclosures made by RBS. Table CAP 7 provides an illustration of these differences by mapping the accounting balance sheet to regulatory consolidation.
- The definition of exposure differs between CRR and those used in the 2015 ARA, specifically balance sheet values under International Financial Reporting Standards (IFRS) as well as credit risk assets and total exposures used for credit risk management in RBS. The CRR definition used in the Pillar 3 disclosures is exposure at default.

It is not always possible to aggregate the disclosures across the different CRR approaches to obtain a meaningful RBS view.

The information presented in this Pillar 3 Report is not required to be, and has not been, subject to external audit.

RBS has not omitted any disclosures on the grounds that the information may be proprietary or confidential.

The disclosures in this report are based on the CRD extant at the reporting periods presented. Therefore disclosures are based on CRR as promulgated by the PRA with effect from 1 January 2014, as well as amendments issued in 2015.

Key metrics and disclosure roadmap

Banks are required to disclose their material risks as part of the Pillar 3 framework. Most of the disclosures meeting these requirements are disclosed within the 2015 ARA, available on RBS's website (rbs.com). The 2015 ARA includes a range of risk factors and provides in-depth analysis on the specific risks to which RBS is exposed. These Pillar 3 disclosures provide additional information over and above that contained in the 2015 ARA.

Key metrics for RBS are set out as follows:

- Key financial performance measures and ratios - Strategic report section on page 4 of the 2015 ARA.
- Capital and leverage ratios for RBS and significant subsidiaries on pages 7 and 8.

Certain Pillar 3 disclosures are included elsewhere as follows:

- Remuneration on page 65 of the 2015 ARA.
- Strategic report - Risk overview on page 30 of the 2015 ARA.
- Report of the Board Risk Committee on page 55 of the 2015 ARA.
- Capital and risk management including Risk appetite and governance on page 135 of the 2015 ARA.
- Credit risk management on page 181 of the 2015 ARA
- Market risk disclosure on page 231 of the 2015 ARA.
- Operational risk on page 175 of the 2015 ARA.
- Capital instruments - detailed terms - are found on the RBS Investor Relations website.
- GSIB indicators at 31 December 2015 will be published on the RBS Investor Relations website in April 2016.

Appendix 4 CRR roadmap provides references to disclosures in this report as well as to disclosures elsewhere, predominantly the 2015 ARA.

Regulatory framework

Regulatory framework

The Basel III framework was implemented in the European Union (EU) through the CRD.

The framework is based on three Pillars:

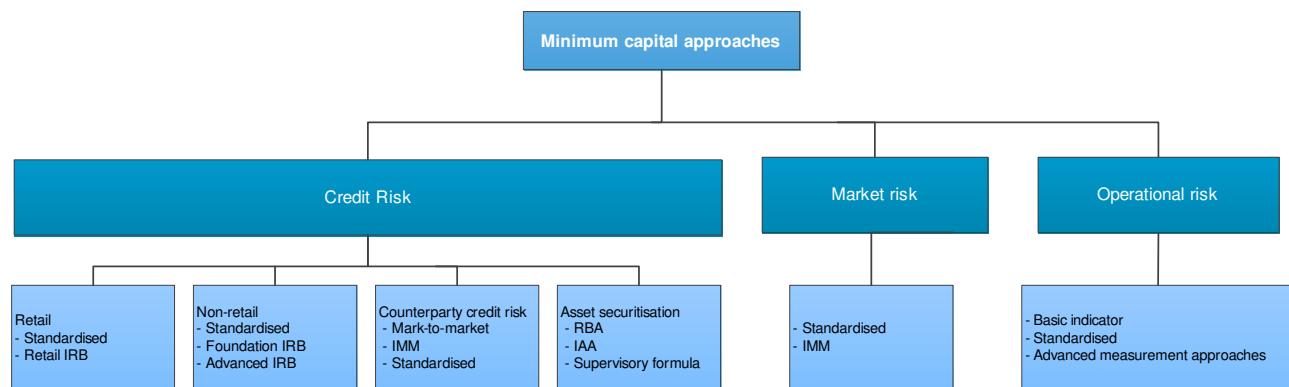
- *Pillar 1 - Minimum capital requirements:* defines rules for the calculation of credit, market and operational risk;

- *Pillar 2 - Supervisory review process:* requires banks to undertake an internal capital adequacy assessment process for risks not included in Pillar 1; and
- *Pillar 3 - Market discipline:* requires disclosures to allow investors and other market participants to understand the risk profiles of individual banks.

Pillar 1 - Minimum capital requirements

CRR requires risk-weighted assets (RWAs) to be calculated for credit, market and operational risks with various approaches available to banks, with differing levels of sophistication. The minimum capital requirement is calculated as 8% of RWAs.

Chart 1: Minimum capital requirements



RBS uses the following approaches for calculating RWAs:

- Credit risk: mainly the internal ratings based (IRB) approach. The standardised approach is used for exposures in certain portfolios.
- Counterparty credit risk: both the mark-to-market method and the internal model method (IMM) are used.
- Securitisation: calculated based on the ratings based approach generally and the internal assessment approach for legacy asset-backed commercial paper conduit programmes.
- Market risk: both the standardised approach and an IMM are used. Refer to pages 231 to 251 of the 2015 ARA for market risk disclosures, including minimum capital requirements and non-traded interest rate, foreign currency and equity risks.
- Operational risk: the standardised approach is used to calculate RWAs and is based on gross income. Refer to pages 175 to 178 of the 2015 ARA for operational risk disclosures.

Regulatory framework

Pillar 2 - Supervisory review process

Pillar 2 comprises RBS's internal capital adequacy assessment process (ICAAP) and a supervisory review and evaluation process undertaken on an annual basis and focusing on the amounts, types and distribution of capital which RBS considers adequate to cover the risks it is or may be exposed to.

The ICAAP evaluates capital requirements for major sources of risk over the short and long term:

- Pillar 2A comprises risks which are not captured in Pillar 1 (such as non-traded interest rate risk, structural foreign exchange risk and pension risk) or not adequately captured in Pillar 1 (such as credit concentration risk); and
- Pillar 2B incorporates stress testing and scenario analysis, which serve as a basis for a forward-looking assessment of RBS's capital requirements in stress and any resultant stress capital buffers.

RBS undertakes a risk assessment to ensure all material risks are identified, adequately managed and capitalised where appropriate.

Within Pillar 2A, RBS assesses credit concentration risk, certain aspects of traded market risk that are not fully captured in Pillar 1, non-traded interest rate risk (NTIRR), pension risk and operational risk to compensate for shortcomings of the Pillar 1 standardised approach. RBS uses economic capital models to estimate Pillar 2A capital charges for credit concentration and operational risk. A description of economic capital is provided on page 151 of the 2015 ARA. Information regarding specific credit risk concentrations, such as sector or geography, is included within Pillar 3. Refer to page 243 of the 2015 ARA for more information on NTIRR and page 179 for pension risk.

Pillar 2B is based on stress testing and scenario analysis. It is used to assess the quantum and quality of capital required to be set aside to counteract the adverse impact of a severe but plausible stress on RBS's capital, and to ensure capital levels in stress remain above minimum requirements.

The ICAAP is approved by the Board before it is submitted to the regulator and forms the basis of the supervisory review and the setting of the Individual Capital Guidance by the PRA. Refer to page 150 of the 2015 ARA for details.

Pillar 3 - Market discipline

RBS is committed to delivering leading practice risk and capital disclosures, to ensure that stakeholders understand the risks within RBS. The Pillar 3 disclosures are designed to encourage and promote market transparency and stability. It represents a component of RBS's broader disclosures framework.

Internal Audit undertake an annual review to provide management and the Board with assurance relating to the adequacy and effectiveness of the controls over the production of the Pillar 3 disclosures.

RBS publishes its Pillar 3 disclosures as required by the CRD.

Certain of RBS's subsidiaries in Europe publish capital and RWA data externally through an appropriate mechanism (such as websites and annual reporting statements), thereby satisfying the European Banking Authority requirements for disclosures in the member states. Outside the EU, local subsidiaries may make additional disclosures under Pillar 3, as required by their local regulators.

RBS continues to participate in the British Bankers' Association's drive towards consistent Pillar 3 disclosures for UK banks wherever possible. It is possible that disclosures made by other banks, especially outside the UK, are not directly comparable with those in this report. Footnotes are included with the data tables to ensure transparency regarding the approaches used for the disclosures. At EU and global levels, different definitions and assumptions adopted by other banks can make direct comparison difficult.

Regulatory and statutory consolidation

Scope of application

The Royal Bank of Scotland Group plc is the parent undertaking for all authorised firms in the Group and is subject to consolidated supervision by the PRA. The Pillar 3 disclosures have been prepared for RBS in accordance with CRR applicable in the UK as promulgated by the PRA.

Control

Inclusion of an entity in the statutory consolidation is driven by RBS's ability to exercise control over that entity. The regulatory consolidation applies a comparable test but consolidation is restricted to certain categories of entities. In accordance with PRA rules, non-financial and certain structured entities are excluded from the regulatory consolidation.

Significant influence or joint control

Where RBS does not have control of an entity but has more than 20% of the voting rights or capital of that entity, then it must be included in the regulatory consolidation on a pro-rata basis, unless it falls into one of the excluded categories or RBS has agreed a different treatment with the PRA (by obtaining permission). Such entities will only be included in the statutory consolidation on a pro-rata basis where RBS has joint control. Entities where RBS has significant influence will be equity accounted in the statutory consolidation.

Regulatory framework

Regulatory and statutory consolidation

Solo-consolidation, impediments to the transfer of capital resources and aggregate capital deficiency

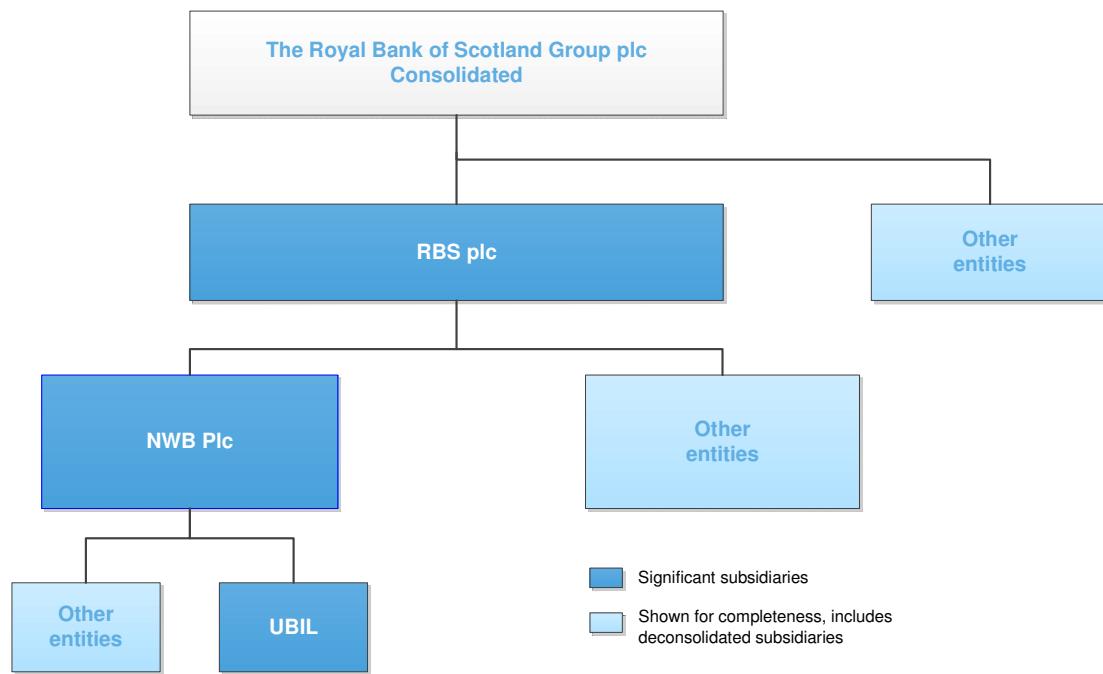
Individual firms within RBS apply the provisions in CRR (solo-consolidation permission) in a limited number of cases only. In 2015, The Royal Bank of Scotland plc (RBS plc) had no solo-consolidated subsidiaries whilst National Westminster Bank Plc had two solo-consolidated subsidiaries, together NWB Plc in this report. Permission is only used where the business of the entity is an extension of the parent bank's activities undertaken for commercial reasons and solo-consolidation is required to ensure that there are no adverse consequences to the capital ratios.

RBS operates on an integrated basis with all RBS companies being subject to policies, governance and controls that are set centrally. Aside from regulatory requirements, there are no current or foreseen material, practical or legal impediments to the transfer of capital or prompt repayments of liabilities when due.

Regulatory hierarchy

Chart 2 represents a simplified regulatory hierarchy of RBS, specifically highlighting those subsidiaries which are of significance. In determining which are its significant subsidiaries for CRR reporting purposes, RBS has considered CRR requirements, including those entities whose total RWAs account for 5% or more of RBS RWAs. These entities at 31 December 2015 are: RBS plc, NWB Plc and Ulster Bank Ireland Limited (UBIL).

Chart 2: Regulatory hierarchy



Capital and leverage

Capital and leverage: RBS and significant subsidiaries

RWAs, minimum capital requirements and leverage

Capital management lies at the core of RBS's strength and sustainability goals. RBS defines capital as that part of the liability side of its balance sheet that has the capacity to absorb losses. The construction of capital starts with Common Equity Tier 1 (CET1) and other classes of capital. RBS will build up sufficient minimum requirements for eligible liabilities (MREL) over the coming years in line with regulatory requirements.

Capital management involves the optimisation and efficient use of the capital required as driven by the bank's businesses, the outcomes of stress testing, the requirements of the market and the regulators and the supply of adequate forms of capital at acceptable prices.

CAP 1: RBS capital and leverage ratios - CRR end point and PRA transitional bases

Capital, RWAs and risk asset ratios, on PRA transitional basis and end-point CRR basis, calculated in accordance with PRA definitions, are set out below.

		2015	2014 (1)		
		End-point CRR basis (2) £bn	PRA transitional basis £bn	End-point CRR basis (2) £bn	PRA transitional basis £bn
Capital					
CET1		37.6	37.6	39.9	39.6
Tier 1		39.6	46.3	39.9	47.1
Total		47.6	60.0	48.6	60.7
RWAs					
Credit risk					
- non-counterparty		166.4	166.4	264.7	264.7
- counterparty		23.4	23.4	30.4	30.4
Market risk		21.2	21.2	24.0	24.0
Operational risk		31.6	31.6	36.8	36.8
		242.6	242.6	355.9	355.9
Risk asset ratios		%	%	%	%
CET1		15.5	15.5	11.2	11.1
Tier 1		16.3	19.1	11.2	13.2
Total		19.6	24.7	13.7	17.1
Leverage			2015	2014	
Tier 1 capital		£39.6bn	£46.3bn	£39.9bn	£47.1bn
Exposure		£702.5bn	£702.5bn	£939.5bn	£939.2bn
Leverage ratio		5.6%	6.6%	4.2%	5.0%

Notes:

- (1) Capital and leverage ratios have not been restated following the pension accounting policy change. Components within CET1 capital have however been represented to reflect revisions to accounting tangible equity, with corresponding adjustments to other deductions above.
- (2) Capital Requirements Regulation (CRR) as implemented by the PRA in the UK, with effect from 1 January 2014. All regulatory adjustments and deductions to CET1 have been applied in full for both bases with the exception of unrealised gains on available-for-sale securities which has been included from 2015 under the PRA transitional basis.

Key points

- The CET1 ratio increased from 11.2% to 15.5% driven by the disposal of Citizens and continued de-risking of the balance sheet, primarily in Capital Resolution which continued to accelerate its exit from several portfolios. The pension accounting policy change lowered the CET1 ratio by an estimated 70 basis points.
- RWAs fell by £113 billion, from £356 billion to £243 billion, driven by the disposal of Citizens accounting for £63 billion and the continued progress of Capital Resolution (down £46 billion). There were further small reductions across most core businesses.
- The leverage ratio improved from 4.2% to 5.6%, primarily from the successful issuance of £2 billion (\$3.15 billion) Additional Tier 1 capital notes and a reduction in leverage exposure as funded assets fell £145 billion to £553 billion, including the disposal of Citizens. The pension accounting policy change lowered the leverage ratio by an estimated 20 basis points.

Capital and leverage

RWAs, minimum capital requirements and leverage

CAP 2: RBS and significant subsidiaries - Capital and leverage ratios on a PRA transitional basis

As set out in the Basis of disclosure on page 3, capital and RWA analyses are based on CRR applicable in the UK as promulgated by the PRA (PRA transitional basis).

Risk asset ratios	2015				2014			
	RBS %	RBS plc %	NWB Plc %	UBIL %	RBS %	RBS plc %	NWB Plc %	UBIL %
CET1	15.5	16.0	11.6	29.6	11.1	13.1	13.9	17.3
Tier 1	19.1	17.1	11.6	29.6	13.2	13.9	14.0	17.3
Total	24.7	25.3	19.6	32.1	17.1	20.9	21.7	19.5

Leverage

Tier 1 capital (£bn)	46.3	34.7	7.2	5.7
Exposure (£bn)	702.5	502.6	153.1	23.7
Leverage ratio (%)	6.6	6.9	4.7	24.0

Key points

- RBS plc** - The CET1 ratio improved from 13.1% to 16.0% driven by significant RWA reduction, principally in Capital Resolution. Overall CET1 fell due to the loss of £1.1 billion in the financial year. The reduction in advanced IRB related minimum capital requirements principally reflected strategic balance sheet and risk reduction in CIB and Capital Resolution.
- NWB plc** - The CET1 ratio decreased from 13.9% to 11.6%, reflecting the current year loss of £1.4 billion, consisting of PPI provisions of £360 million and the impairment of investments in US related subsidiaries, including RBS Securities Inc, of £1.6 billion following additional provisions relating to US RMBS litigation. The loss on remeasurement of the retirement benefit schemes resulted in a CET1 capital reduction of £1.4 billion. This was partially offset by a capital injection of £800 million from RBS plc.
- UBIL** - The CET1 ratio improved from 17.3% to 29.6%. 2015 CET1 ratio benefited from the inclusion of £0.9 billion of 2014 profit, which was previously unverified and removed as part of regulatory adjustments.

Refer to the following page for commentary on RWAs.

CAP 3: RBS and significant subsidiaries - RWAs and capital requirements by risk type

RWAs	2015				2014			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
Credit risk								
- non-counterparty								
- advanced IRB	128,424	57,790	39,231	16,761	163,296	81,725	40,716	19,944
- standardised	37,993	88,654	15,191	968	101,495	118,407	20,952	2,430
- counterparty	23,361	21,769	402	345	30,379	27,682	633	426
Market risk	21,255	19,073	570	7	23,960	18,975	455	32
Operational risk	31,597	15,615	6,361	1,148	36,784	17,134	5,546	1,348
	242,630	202,901	61,755	19,229	355,914	263,923	68,302	24,180
Minimum capital requirements								
Credit risk	2015				2014			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
- non-counterparty								
- advanced IRB	10,274	4,623	3,138	1,341	13,065	6,538	3,257	1,596
- standardised	3,039	7,092	1,215	77	8,119	9,473	1,676	195
- counterparty	1,869	1,742	32	28	2,430	2,215	51	34
Market risk	1,700	1,526	46	1	1,917	1,518	36	2
Operational risk	2,528	1,249	509	92	2,943	1,371	444	108
	19,410	16,232	4,940	1,539	28,474	21,115	5,464	1,935

Capital and leverage

Key points

RBS

- IRB RWAs decreased by £35 billion primarily in Corporates exposure class (£23 billion) relating to CIB portfolio reductions, North American disposals and ongoing GTS exits. Retail exposure class reduction (£6 billion) reflected improvements in risk parameter metrics. Smaller movements were seen as a result of non-credit assets moving to standardised (£3 billion) and disposals of securitisation positions (£2 billion).
- Standardised RWAs decreased overall as result of full divestment of Citizens (£63 billion).

RBS plc

- IRB RWAs decreased by £24 billion driven by (i) the Corporates exposure class (£19 billion) relating to CIB reductions in portfolio, North American disposals and ongoing GTS exits; and (ii) the Retail exposure class (£2 billion) relating to risk parameter improvements and disposals of securitisation positions (£2 billion).
- Standardised RWAs including significant investments, of which 60% is risk-weighted, decreased by £30 billion with the largest movement in Other items (£26 billion). This reduction primarily reflected a move from RWA to capital deduction, as part of a phased in move to end-point CRR, prior to impairment of significant investments, mainly Citizens related.

NWB Plc

- IRB RWAs decreased by £1.5 billion, primarily in the Retail exposure class as result of risk parameter improvements in PBB.
- Standardised RWAs including significant investments, of which 60% is risk-weighted, decreased by £6 billion, with the largest movement in Other items (£5 billion). This primarily reflected a move from RWA to capital deduction, as part of phased in move to end-point CRR, prior to impairment of significant investments in the US during the year.

UBIL

- IRB RWAs decreased by £3 billion primarily in the Retail exposure class (£2 billion). This primarily related to reduction in tracker mortgage portfolio and also Corporates exposure class reduction (£1 billion). Exchange rate movements also contributed to the RWA reduction.
- Standardised RWAs were £2 billion lower with the largest movement in the Corporates exposure class as result of a decrease in the Central Bank of Ireland add-on over the 12 month period.

Capital and leverage

RWAs, minimum capital requirements and leverage

CAP 4: RBS and significant subsidiaries - Non-counterparty credit risk minimum capital requirements

	2015				2014			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
Advanced IRB exposure class and sub-class								
Central governments and banks	318	223	—	29	273	167	1	23
Institutions	237	110	12	20	386	211	40	20
Corporates	6,364	3,506	1,880	287	8,180	5,039	1,849	356
Retail								
small and medium-sized enterprises (SMEs)	345	72	158	51	419	99	198	56
secured by real estate collateral	1,677	226	467	925	1,908	343	449	1,052
qualifying revolving retail	510	137	347	17	616	163	400	40
other retail	365	91	248	10	411	109	276	11
	2,897	526	1,220	1,003	3,354	714	1,323	1,159
Equities								
exchange-traded	12	1	—	—	45	8	—	—
private equity	106	54	1	—	108	12	—	8
other	82	12	—	2	69	16	1	2
	200	67	1	2	222	36	1	10
Securitisation positions	225	191	25	—	385	329	22	—
Non-credit obligation assets	33	—	—	—	265	42	21	28
	10,274	4,623	3,138	1,341	13,065	6,538	3,257	1,596
Standardised exposure class								
Regional governments or local authorities	16	—	—	—	6	2	—	—
Administrative bodies and non-commercial undertakings	—	—	—	—	1	—	—	—
Institutions	19	191	7	13	41	284	15	19
Corporates	1,421	509	17	23	4,000	678	74	163
Retail	202	7	22	1	1,337	11	33	1
Secured by mortgages on								
- residential property	352	35	—	—	830	46	—	—
- commercial real estate	260	24	7	—	715	19	9	1
Past due items	60	11	3	1	168	13	2	2
Other items (2)	709	6,315	1,159	39	765	8,420	1,543	9
Securitisation positions	—	—	—	—	256	—	—	—
	3,039	7,092	1,215	77	8,119	9,473	1,676	195

Notes:

(1) Non-credit obligation assets were reclassified from the advanced IRB to the standardised approach.

(2) Includes application of thresholds relating to significant investments and deferred tax. Thresholds were RBS - £236 million (2014 - £163 million), RBS plc - £6,121 million (2014 - £8,201 million), NWB Plc - £1,073 million (2014 - £1,483 million) and UBIL - £1 million (2014 - nil).

Capital and leverage

RWAs, minimum capital requirements and leverage

CAP 5: RBS and significant subsidiaries - Market risk minimum capital requirements

	2015				2014			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
Interest rate position risk requirement	85	55	12	1	116	74	10	—
Equity position risk requirement	1	—	—	—	1	—	—	—
Option position risk requirement	6	1	—	—	7	1	—	—
Specific interest rate risk of securitisation positions	130	130	—	—	270	243	—	—
Commodity position risk requirement	—	—	—	—	2	—	—	—
Foreign exchange position risk requirement	155	131	20	—	63	52	2	2
Total (standard method)	377	317	32	1	459	370	12	2
Pillar 1 model based position risk requirement	1,323	1,209	14	—	1,458	1,148	24	—
Total position risk requirement	1,700	1,526	46	1	1,917	1,518	36	2

The contributors to the Pillar 1 model based position risk requirement are:

Value-at-risk (VaR)	377	350	3	—	329	267	9	—
Stressed VaR	477	412	11	—	511	338	15	—
Incremental risk charge (IRC)	248	230	—	—	299	240	—	—
Risks not in VaR	221	217	—	—	319	303	—	—

Key points

- For commentary on market risk movements in RBS, refer to pages 231 to 251 of the 2015 ARA.
- Apart from RBS plc, RBS Securities Inc (RBSSI) is the major contributor to market risk capital requirements in RBS. RBSSI market risk RWAs were £0.9 billion, predominantly stressed VaR and the IRC.

Capital and leverage

Capital resources

CAP 6: RBS and significant subsidiaries - Capital resources

	2015 (PRA transitional basis)			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
Shareholders' equity (excluding non-controlling interests)				
Shareholders' equity (1)	53,431	51,177	11,282	5,753
Preference shares - equity	(3,305)	(1,421)	—	—
Other equity instruments	(2,646)	—	—	—
	47,480	49,756	11,282	5,753
Regulatory adjustments and deductions				
Own credit	(104)	17	—	—
Defined benefit pension fund adjustment	(161)	(138)	—	142
Cash flow hedging reserve	(458)	(286)	1	—
Deferred tax assets	(1,110)	(252)	(622)	(210)
Prudential valuation adjustments	(381)	(349)	(1)	—
Goodwill and other intangible assets	(6,537)	(544)	(498)	—
Expected losses less impairments	(1,035)	(395)	(703)	(22)
Instruments of financial sector entities where the institution has a significant investment	—	(15,680)	(2,413)	—
Significant investments in excess of secondary capital	—	—	(424)	—
Other regulatory adjustments	(64)	287	532	27
	(9,850)	(17,340)	(4,128)	(63)
CET1 capital	37,630	32,416	7,154	5,690
Additional Tier 1 (AT1) capital				
Eligible AT1	1,997	—	—	—
Qualifying instruments and related share premium subject to phase out	5,092	3,493	204	—
Qualifying instruments issued by subsidiaries and held by third parties	1,627	—	—	—
AT1 capital	8,716	3,493	204	—
Tier 1 deductions				
Instruments of financial sector entities where the institution has a significant investment	—	(1,175)	(187)	—
Tier 1 capital	46,346	34,734	7,171	5,690
Qualifying Tier 2 capital				
Qualifying instruments and related share premium	6,265	19,039	5,058	492
Qualifying instruments issued by subsidiaries and held by third parties	7,354	—	—	—
	13,619	19,039	5,058	492
Tier 2 deductions				
Instruments of financial sector entities where the institution has a significant investment	—	(2,432)	(92)	—
Other regulatory adjustments	—	—	—	(7)
	—	(2,432)	(92)	(7)
Tier 2 capital	13,619	16,607	4,966	485
Total regulatory capital	59,965	51,341	12,137	6,175

Note:

(1) RBS plc and NWB Plc are unaudited.

Capital and leverage

Capital resources

CAP 6: RBS and significant subsidiaries - Capital resources *continued*

	2014 (PRA transitional basis)			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
Shareholders' equity (excluding non-controlling interests)				
Shareholders' equity	55,763	52,553	13,312	5,081
Preference shares - equity	(4,313)	(1,421)	—	—
Other equity instruments	(784)	—	—	—
	50,666	51,132	13,312	5,081
Regulatory adjustments and deductions				
Own credit	500	659	—	—
Defined benefit pension fund adjustment	(238)	(127)	—	320
Cash flow hedging reserve	(1,029)	(755)	3	—
Deferred tax assets	(1,222)	(258)	(742)	—
Prudential valuation adjustments	(384)	(324)	(1)	—
Goodwill and other intangible assets	(7,781)	(917)	(530)	—
Expected losses less impairments	(1,491)	(805)	(785)	(3)
Instruments of financial sector entities where the institution has a significant investment	—	(14,809)	(2,318)	—
Other regulatory adjustments	628	703	529	(1,217)
	(11,017)	(16,633)	(3,844)	(900)
CET1 capital	39,649	34,499	9,468	4,181
AT1 capital				
Qualifying instruments and related share premium subject to phase out	5,820	3,503	234	—
Qualifying instruments issued by subsidiaries and held by third parties	1,648	—	—	—
AT1 capital	7,468	3,503	234	—
Tier 1 deductions				
Instruments of financial sector entities where the institution has a significant investment	—	(1,291)	(140)	—
Tier 1 capital	47,117	36,711	9,562	4,181
Qualifying Tier 2 capital				
Qualifying instruments and related share premium	6,136	20,427	5,380	528
Qualifying instruments issued by subsidiaries and held by third parties	7,490	—	—	—
	13,626	20,427	5,380	528
Tier 2 deductions				
Instruments of financial sector entities where the institution has a significant investment	—	(1,836)	(102)	—
Other regulatory adjustments	—	(41)	(8)	(5)
	—	(1,877)	(110)	(5)
Tier 2 capital	13,626	18,550	5,270	523
Total regulatory capital	60,743	55,261	14,832	4,704

Capital and leverage

Accounting to regulatory consolidation

CAP 7: RBS - Accounting to regulatory consolidation bridge

The table below provides a reconciliation between accounting and regulatory consolidation.

	2015				2014			
	Accounting balance sheet £m	Deconsolidation of non-financial entities (1) £m	Consolidation of banking associates (2) £m	Regulatory consolidation £m	Accounting balance sheet £m	Deconsolidation of non-financial entities (1) £m	Consolidation of banking associates (2) £m	Regulatory consolidation £m
Assets								
Cash and balances at central banks	79,404	(17)	549	79,936	74,872	(13)	650	75,509
Loans and advances	364,538	769	5,564	370,871	421,973	1,900	4,565	428,438
Debt securities	82,096	(278)	1,490	83,308	86,649	(290)	1,258	87,617
Equity shares	1,361	(29)	103	1,435	5,635	(30)	93	5,698
Settlement balances	4,116	—	—	4,116	4,667	—	—	4,667
Derivatives	262,514	369	22	262,905	353,590	355	24	353,969
Intangible assets	6,537	—	3	6,540	7,781	—	4	7,785
Property, plant and equipment	4,482	(32)	58	4,508	6,167	(457)	86	5,796
Deferred tax	2,631	—	—	2,631	1,911	(371)	—	1,540
Prepayments, accrued income and other assets	4,243	62	(799)	3,506	5,763	77	(508)	5,332
Assets of disposal groups	3,486	—	—	3,486	82,011	—	—	82,011
	815,408	844	6,990	823,242	1,051,019	1,171	6,172	1,058,362
Liabilities								
Deposits by banks and customer accounts	408,594	613	6,481	415,688	452,304	893	5,452	458,649
Debt securities in issue	31,150	754	320	32,224	50,280	796	305	51,381
Settlement balances	3,390	—	—	3,390	4,503	—	—	4,503
Short positions	20,809	—	—	20,809	23,029	—	—	23,029
Derivatives	254,705	—	11	254,716	349,805	—	17	349,822
Accruals, deferred income and other liabilities	15,115	(524)	178	14,769	13,346	(241)	398	13,503
Retirement benefit liabilities	3,789	—	—	3,789	4,318	(1,739)	—	2,579
Deferred tax	882	—	—	882	500	—	—	500
Subordinated liabilities	19,847	—	—	19,847	22,905	—	—	22,905
Liabilities of disposal groups	2,980	—	—	2,980	71,320	—	—	71,320
	761,261	843	6,990	769,094	992,310	(291)	6,172	998,191
Non-controlling interests	716	1	—	717	2,946	(21)	—	2,925
Owners' equity	53,431	—	—	53,431	55,763	1,483	—	57,246
Total equity	54,147	1	—	54,148	58,709	1,462	—	60,171
	815,408	844	6,990	823,242	1,051,019	1,171	6,172	1,058,362

Notes:

(1) RBS can only include particular types of subsidiary undertaking in the regulatory consolidation. Non-financial undertakings are excluded from the regulatory consolidation.

(2) RBS must proportionally consolidate its associates for regulatory purposes where they are classified as credit institutions or financial institutions. These will generally have been equity accounted for financial reporting purposes. A principal contributor is RBS's investment in Saudi Hollandi Bank.

Capital and leverage

Capital instruments

CAP 8: RBS and significant and other subsidiaries - Capital instruments

The following table sets out the main terms and conditions of RBS's capital instruments which include an incentive for the issuer to redeem, held by third parties and are treated as Tier 1 or Tier 2 capital. The balances are the IFRS balance sheet carrying amounts, which may differ from the amount which the instrument contributes to regulatory capital. Regulatory balances exclude, for example, issuance costs and fair value movements, while dated capital is required to be amortised on a straight-line basis over the final five years of maturity. For accounting purposes the capital instruments in the following table are included within equity or subordinated liabilities, details of which are included on pages 323 and 324 of the 2015 ARA. Refer to RBS.com for more details on these and other instruments issued to third parties on an instrument-by-instrument basis.

Pillar 1 treatment - Additional Tier 1	Step-up coupon	2015 £m	2014 £m
RBS - undated loan capital			
US\$762 million 7.648% perpetual regulatory (callable quarterly from September 2031)	3 month US\$ LIBOR plus 2.5%	519	493
RBS - debt preference shares			
Series F US\$156 million 7.65% (callable any time)		105	100
Series H US\$242 million 7.25% (callable any time)		163	155
Series L US\$751 million 5.75% (callable any time)		506	481
Series 1 US\$65 million 9.118% (callable any time)		45	42
Series 1 £15 million 7.387% (callable any time)		15	15
NWB Plc - debt preference shares			
Series A £140 million 9% (not callable)		143	143
Series C US\$246 million 7.76304% (callable quarterly)		177	169
RBS US Capital Trusts - debt trust preferred securities			
US\$486 million 6.8% 2042 (callable quarterly)		328	311
US\$394 million 6.425% 2043 (callable quarterly from January 2034)	3 month US\$ LIBOR plus 1.9425%	383	364
RBS N.V. US Capital Trusts - debt trust preferred securities			
US\$1,285 million 5.90% Trust Preferred V (callable any time)		841	802
US\$200 million 6.25% Trust Preferred VI (callable any time)		131	123
US\$1,800 million 6.08% Trust Preferred VII (callable any time)		1,178	1,100
RBS US Capital Trusts - equity trust preferred securities			
US\$357 million 5.512%	3 month US\$ LIBOR plus 1.84%	—	195
US\$276 million 3 month US\$ LIBOR plus 0.80%	3 month US\$ LIBOR plus 1.8%	—	150
€166 million 4.243% (redeemable January 2016)	3 month EURIBOR plus 1.69%	110	110
£93 million 5.6457% (redeemable June 2017)	3 month LIBOR plus 1.69%	93	93
RBS - paid in equity trades			
CAD321 million 6.666% (callable quarterly from October 2017)	3 month CDOR plus 2.76%	156	156
US\$564 million 6.99% (callable quarterly from October 2017)	3 month US\$ LIBOR plus 2.67%	275	275

Capital and leverage

Capital instruments

CAP 8: RBS and significant and other subsidiaries - Capital instruments *continued*

Pillar 1 treatment - Additional Tier 1 <i>continued</i>	Step-up coupon	2015 £m	2014 £m
RBS - equity preference shares			
Series M US\$578 million 6.4%		—	313
Series N US\$553 million 6.35%		—	292
Series P US\$247 million 6.25%		—	138
Series Q US\$516 million 6.75%		—	268
Series R US\$254 million 6.125% (callable any time)		126	126
Series S US\$661 million 6.6% (callable any time)		321	321
Series T US\$1,281 million 7.25% (callable any time)		615	615
Series U US\$1,013 million 7.64% (callable every ten years from September 2017)		494	494
Series 1 €1,250 million 5.5% (callable quarterly)		859	859
Series 2 €785 million 5.25% (callable quarterly)		512	512
Series 3 €471 million 7.0916% (callable quarterly from September 2017)		325	325
Series 1 £54 million floating rate notes (callable quarterly)		54	54

Tier 2 capital securities which contain an incentive for the issuer to redeem

Pillar 1 treatment Tier 2

RBS plc - undated loan capital

£54 million 5.125% undated subordinated notes (callable every five years from March 2016) ⁽¹⁾	Aggregate of 1.95% and the 5 year UK Gilts yield	57	59
CAD474 million 5.37% undated subordinated notes (callable quarterly from May 2016)	3 month CDOR plus 1.48%	235	275
£51 million floating rate undated subordinated notes	Aggregate of 2.35% and the 5 year UK Gilts yield	51	51
£103 million 9.5% undated subordinated bonds (callable every five years from August 2018)	9.5% or the 5 year UK Gilts yield plus 2.375%	121	126
£35 million 5.5% undated subordinated notes (callable every five years from December 2019)	Aggregate of 1.84% and the 5 year UK Gilts yield	38	39
£21 million 6.2% undated subordinated notes (callable every five years from March 2022)	Aggregate of 2.05% and the 5 year UK Gilts yield	26	27
£16 million 5.625% undated subordinated notes (callable every five years from September 2026)	Aggregate of 2.10% and the 5 year UK Gilts yield	24	25
£19 million 5.625% undated subordinated notes (callable every five years from June 2032)	Aggregate of 2.41% and the 5 year UK Gilts yield	21	21

NWB Plc - undated loan capital

€10 million floating rate undated step-up notes	3 month EURIBOR plus 2.15%	8	8
€178 million floating rate undated subordinated notes	3 month EURIBOR plus 2.15%	131	139
£87 million floating undated subordinated step-up notes	5 year UK Gilts yield plus 2.98%	—	92
£53 million 7.125% undated subordinated step-up notes (callable every five years from October 2022)	5 year UK Gilts yield plus 3.08%	55	54

Note:

(1) On 20 January 2016, RBS plc issued a notice of redemption to the holders of the £500,000,000 Fixed Rate Undated Subordinated Notes issued under the £12,000,000,000 Euro Medium Term Note Programme (ISIN Code: XS0164828385) for 14 March 2016.

Capital and leverage

Capital instruments

CAP 8: RBS and significant and other subsidiaries - Capital instruments *continued*

	Step-up coupon	2015 £m	2014 £m
RBS plc - dated loan capital			
AUD36 million floating rate subordinated notes 2017	3 month BBSW plus 0.78%	—	19
€23 million floating rate subordinated notes 2017	3 month EURIBOR plus 0.75%	—	18
AUD18 million floating rate subordinated notes 2017	3 month BBSW plus 0.78%	—	9
US\$238 million floating rate subordinated step-up notes 2017	3 month US\$ LIBOR plus 0.7%	—	153
€1,000 million 4.625% subordinated notes 2021 (callable quarterly from September 2016)	3 month EURIBOR plus 1.3%	767	844
RBS N.V. - dated loan capital			
€5 million floating rate Bermudan callable subordinated notes 2015	3 month EURIBOR plus 1.5%	—	4
AUD26 million floating rate Bermudan callable subordinated notes 2018	3 month BBSW plus 0.79%	—	13
AUD123 million floating rate Bermudan callable subordinated notes 2018	3 month BBSW plus 0.79%	—	64
\$564 million floating rate Bermudan subordinated notes 2015	3 month US\$ LIBOR plus 0.7%	—	361
€415 million floating rate Bermudan subordinated notes 2015	3 month EURIBOR plus 0.75%	—	323

Credit risk

Credit risk

Framework, models and definitions

Credit risk is the risk of financial loss owing to the failure of a customer or counterparty to meet its obligation to settle outstanding amounts.

RBS is exposed to credit risk as a result of a wide range of business activities. The most significant source of credit risk is lending. The second most significant source is counterparty credit risk, which results from activities in the derivatives and security financing transaction markets. The credit risk management framework addresses not only credit risk but also concentration risk, settlement risk, issuer risk, wrong-way risk and credit mitigation risk.

Credit risk management

Information on how RBS manages credit risk and additional credit risk disclosures are set out on pages 181 to 230 of the 2015 ARA.

Measurement of credit RWAs under CRR

RBS has been granted permission by the PRA to use the modelled approach to calculate RWAs for the majority of its credit risk exposures. This approach allows RBS to use its own models to estimate probability of default (PD), exposure at default (EAD) and loss given default (LGD) as inputs to the regulatory formula that determines RWAs.

In the case of project finance and income-producing real estate, the supervisory slotting approach rather than internally modelled estimates is used to determine RWAs.

For some portfolios, primarily in Private Banking, RBS applies the STD approach. Exposures are allocated to exposure classes in accordance with the regulatory requirements. Under this approach, RBS uses credit ratings from external rating agencies (Standard & Poor's (S&P), Moody's and Fitch) to assign exposures to corporates, sovereigns and financial institutions to credit quality steps, as defined by the regulation.

Refer to Table CR 5 for an analysis of approach by segment and Table CR 6 by significant subsidiary.

Credit risk models

RBS uses credit risk models to support risk assessments in the credit approval process, ongoing credit risk management, monitoring and reporting, as well as the calculation of RWAs.

Probability of default/customer credit grade models

PD models assess the probability of a customer failing to honour its credit obligations over a one year period.

Wholesale models

- As part of the credit assessment process, RBS assigns each customer a credit grade reflecting its PD. RBS maintains and uses a number of credit grading models which consider risk characteristics relevant to the customer, incorporating both quantitative and qualitative inputs. RBS uses these credit grades in many of its risk management and measurement frameworks, including credit sanctioning and managing single name concentration risk.

- Different models are developed for different customer types. The most material models (those used for the largest aggregate amounts of exposure) are those applied to large and mid-corporate customers and bank and sovereign counterparties. In addition, a number of less material models are used, including those for non-bank financial institutions, public sector entities and specialist corporate sectors such as shipping.
- Regulation defines the minimum time series and other attributes of the data used for developing and calibrating models. For the most material models, external data are referenced for calibration purposes (historical default data from rating agencies and insolvency rates) so that models are calibrated to in excess of 20 years of default experience. Most of the less material models relate to portfolios for which default frequency is low because customer loan volumes are lower and borrowers are of higher credit quality. In these cases, as required by regulation, a specific approach is applied to produce an appropriately prudent calibration to reflect the potential that future outcomes differ from the very low risk outcomes historically observed.

Retail models

- RBS assigns each customer account a score, which is a typical input into the model used to assign a PD. Account scoring is used extensively across the businesses to support decision making and portfolio management. Models are developed using a range of data across portfolios, including customer and account data as well as data from credit bureaus.
- Bespoke models are developed for different product types, with further distinctions based on other criteria, such as whether or not a customer also has a current account with RBS. All retail PD models produce both a best estimate measure, which is used for portfolio reporting and forecasting, and a conservative measure, which is required as input to the RWA and provision calculations. The conservative measure is designed to be a PD that takes account of the normal volatility observed in actual default rates. PDs are calibrated quarterly to ensure that they continue to reflect the actual underlying portfolio performance.

Exposure at default models

EAD models provide estimates of utilisation of a credit facility at the time of a customer's default, recognising that customers may make further drawings on unused credit facilities prior to default. Regulation requires that EAD is always equal to or higher than current utilisation. Exposure can be reduced by a netting agreement, subject to meeting standards of legal enforceability. Different wholesale and retail models are developed for different product types. Models are developed using internal data as stipulated by regulatory requirements. The models with greatest impact on EAD are those applying to revolving products (such as revolving credit facilities granted to wholesale customers, credit cards provided to retail customers or overdraft facilities provided to all customer types). For these products, historical data on limit utilisation in the period prior to customer default are used to estimate and calibrate the models. In line with regulatory requirements, the model estimates reflect downturn conditions.

Credit risk

Loss given default models

LGD models estimate the amount that cannot be recovered by RBS in the event of customer default. When estimating LGD, the models assess both borrower and facility characteristics, as well as various credit risk mitigants (refer to Table CR 11 for more information). The cost of collections and the timing of recoveries are also incorporated.

Wholesale models

- Different models are developed for different customer segments and reflect the recoveries approach applied to each segment.
- The models for large corporates, sovereigns and banks reflect both internal and external loss experience, while the model for mid-corporates reflects internal loss experience only. The risk drivers in these models include: seniority of claim; the existence and nature of collateral held; industry segment; and customer size.
- The most material models incorporate the impact of the most recent economic downturn and updated regulatory requirements, including floors on estimates where historical data is scarce.
- Updates to the model for mid-corporates, and to other less material models, are in progress, with rollout expected to be completed in 2016.

Retail models

- Different models are developed for different product types. They are based on internal loss data reflecting RBS's collections and recoveries processes.

In line with regulatory requirements, the model estimates reflect downturn conditions.

Modelling framework

The governance process for approval and oversight of models involves the model developers, an independent model validation function and the users of the model. The process applies greater scrutiny for the more significant model risks. Credit risk models are developed and maintained within a framework that includes the following key components:

- A high level policy framework that establishes responsibilities and minimum requirements applying to each stage of the modelling lifecycle;
- Data sourcing and preparation;
- Model specification;
- Independent model review;
- Model approval;
- Model implementation; and
- Model maintenance - monitoring and annual review.
- Detailed standards that define the approaches and activities undertaken at each of these stages.
- Defined structure and authorities that approve or oversee each stage.
- Model development teams that are part of the independent risk management function.

- An independent model validation function that is organisationally separate from the model development teams (refer to below for more information).

The framework aims to ensure that RBS is not exposed to excessive model risk and that the approaches deployed continue to meet both internal and regulatory standards.

The performance of models is tested by quarterly monitoring and annual reviews.

Each quarter, every model is tested by comparing estimates to outcomes to assess the accuracy of model parameters. Other statistical tests assess the ability of the models to discriminate risk (i.e. their ability to determine the relative risk level of a particular customer or exposure), the extent to which portfolio composition remains stable and, where relevant, the frequency and magnitude of overrides applied by model users to modelled estimates.

The annual reviews comprise further analyses that consider:

- ongoing user acceptance and confidence in the model and its performance;
- developments in the portfolio (both observed and anticipated); and
- other relevant data that might be used to explain or assess model performance.

Where model performance or another aspect of model risk is determined to be outside tolerance as part of the quarterly monitoring or annual review, appropriate action is taken. This may entail recalibrating the model, enhancing it (such as by re-weighting existing model factors) or redeveloping it.

Independent model validation

Both new and existing credit risk models are subject to review by Model Risk Management (MRM) aimed at providing independent affirmation that the models are and remain fit for purpose.

MRM's independent review comprises some or all of the following steps, as appropriate:

- Testing and challenging the logical and conceptual soundness of the methodology;
- Testing the assumptions underlying the model, where feasible, against actual behaviour. In its validation report, MRM will opine on the reasonableness and stability of the assumptions and specify which assumptions, if any, should be routinely monitored in production;
- Testing whether all key appropriate risks have been sufficiently captured;
- Checking the accuracy of calculations;
- Comparing outputs with results from alternative methods;
- Testing parameter selection and calibration;
- Ensuring model outputs are sufficiently conservative in areas where there is significant model uncertainty;
- Confirming the applicability of tests for accuracy and stability; recalculating and ensuring that results are robust; and
- Ensuring appropriate sensitivity analysis has been performed and documented.

Credit risk

Based on the review and findings from MRM, the bank's model or risk committees with appropriate delegated authority will consider whether a model can be approved for use and whether any conditions need to be imposed, including those relating to the remediation of material issues raised through the review process. Once approved through internal governance, the new or amended model is implemented. Models used for regulatory reporting may additionally require regulatory approval before implementation.

MRM also monitors the performance of RBS's portfolio of models. By engaging with the business and model users, MRM assesses whether models still capture underlying business rationale appropriately.

Modelling framework

Changes to wholesale credit risk models

Extensive changes to the wholesale models suite commenced in 2012. This process is now largely complete; modest further changes, notably relating to LGD estimates for mid-sized corporate customers, are planned for 2016, with no significant RWA impact expected.

The following summarises the organisational structure of the credit risk tables:

	Total credit risk	Non-counterparty credit risk only	Counterparty credit risk only
Sector cluster view	Tables CR 1 to CR 4		
Exposure class view vs. segmental view	Table CR 5		
Exposure class view vs. sector cluster view		Table CR 8	
Exposure class view	Tables CR 5 to CR 7	Tables CR 9 to CR 27	Tables CR 31 to CR 33

RBS completed its disposal of Citizens during 2015. Exposures to Citizens are included within the 2014 disclosures in all tables in this section in accordance with regulatory rules. The exception is Table CR 1, which analyses RWA density by RBS sector class, where 2014 data is presented both excluding and including Citizens.

Tables CR 1 to CR 10 and CR 24 include the following categories of exposure:

- *non-credit assets* - assets owned by RBS without associated credit risk or uncertainty related to obligor performance affecting their future value. These comprise tangible assets (such as property, plant and equipment), prepayments, accrued income, items in transit and deferred tax assets;
- *consortium investment exposures* - exposures arising as a result of equity investments made by RBS in its capacity as a member of a consortium; and
- *intra-Group exposures* - exposures to RBS entities included within regulatory consolidation, including within core UK group.

These items are allocated across exposure classes in Tables CR 5 to CR 7. However, they are captured in the 'Other items' line in Table CR 1, the 'Not allocated to sector cluster' line in Tables CR 2, CR 4 and CR 8, the 'Not allocated to region' line in Table CR 9 and the 'Not allocated to maturity' line in Table CR 10 except for significant subsidiaries which exclude them. Other tables exclude these items.

Credit risk tables - roadmap and definitions

Credit risk exposures are split between counterparty and non-counterparty risk. Counterparty credit risk principally comprises exposures arising from derivatives and securities financing transactions. Non-counterparty credit risk excludes such exposures but includes loans and advances to customers, banks and central banks, as well as holdings of debt and equity securities.

Two principal classifications are used to analyse credit risk exposures in this section:

- *Sector cluster* - Consists of exposures classified by industry using standard industrial classification codes. RBS uses this type of classification for internal risk management purposes.
- *Exposure class* - Consists of exposures classified in accordance with the CRR, namely Article 147 for the IRB approach and Article 112 for the STD approach. RBS uses this type of classification when calculating its regulatory capital requirements.

IRB and STD approaches

Where applicable, credit risk exposures under the IRB and STD approaches are generally shown in the same table, with corporate exposures subject to the supervisory slotting approach being included in IRB amounts.

The exception is in the analysis of asset quality (Tables CR 15 to CR 24). In these tables, the IRB and STD approaches are covered separately, with the corporate exposures subject to the slotting approach being excluded from IRB amounts and appearing in their own table.

Definitions used in tables

The following terms appear in column, row or table headings in the tables and are defined in the glossary: IRB approach, asset quality (AQ) bands, counterparty credit risk, credit conversion factor (CCF), credit quality steps (CQS), EAD, exposure class, minimum capital requirements, LGD, PD, RWAs, STD approach, trading book, non-trading book and undrawn commitments.

Credit risk

Other terms specific to the disclosures and tables in this section are defined below:

EAD pre CRM/EAD post CRM - Credit risk mitigation (CRM) is defined as the use of collateral or guarantees to reduce potential loss if a customer fails to settle all or part of its obligations to RBS. The application of CRM depends on the approach (STD or IRB) governing capital calculation related to a credit exposure. (Refer to Table CR 11 for details of how different risk mitigants are incorporated into IRB risk parameters).

EAD figures may be either pre or post CRM, and are labelled accordingly.

Non-counterparty credit risk EAD pre CRM:

- STD approach - EAD before legally enforceable netting, collateral and guarantees.
- IRB approach - EAD before legally enforceable netting only.

Non-counterparty credit risk EAD post CRM:

- STD approach - EAD after legally enforceable netting, collateral and guarantees.
- IRB approach - EAD after legally enforceable netting only.

Counterparty credit risk EAD post CRM for derivatives and securities financing transactions, under both the STD and IRB approaches, is EAD after legally enforceable netting and collateral.

Defaulted assets (AQ10) - Assets with a PD of 100%.

Exposure-weighted average LGD (for each AQ band) - Calculated by multiplying the EAD of each position by the associated LGD, giving an LGD-weighted EAD value for each position. LGD-weighted EADs for each position are added together for the whole AQ band, and the final sum is divided by the total EAD for the AQ band to arrive at an exposure-weighted average LGD for each AQ band.

Exposure-weighted average PD (for each AQ band) - Calculated by multiplying the EAD of each position by the associated PD, giving a PD-weighted EAD for each position. PD-weighted EADs for each position are added together for the whole AQ band, and the final sum is divided by the total PD for the AQ band to arrive at an exposure-weighted average PD for each AQ band.

Geographical region - The numbers are reported by country of operation of the obligor, except exposures to governments and individuals which are shown by country of residence.

The country of operation is the country where the main operating assets of a legal entity are held, or where its main cash flows are generated, taking account of the entity's dependency on subsidiaries' activities. Rest of the World (RoW) includes exposures to supranationals and ocean-going vessels.

Not allocated to sector cluster/region/maturity - Comprises non-credit assets, consortium investment exposures and intra-Group exposures.

Residual maturity - the remaining time in years that a borrower is permitted to take to fully discharge their contractual obligation (principal, interest and fees) under the terms of a loan agreement. Exposures are classified using maturity bands in line with contractual maturity.

RWA density - RWAs as a percentage of EAD post CRM.

Undrawn weighted average credit conversion factor (for each AQ band) - Calculated by multiplying the undrawn commitment of each position by the associated CCF, giving a CCF-weighted undrawn for each position. CCF-weighted undrawns for each position are added together for the whole AQ band and the final sum is divided by the total CCFs for the AQ band to arrive at an exposure weighted average CCF for each AQ band.

Western Europe excluding the UK - Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Monaco, the Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland and the Vatican City State (Holy See).

Credit risk

Total credit risk

CR 1: Credit risk RWA density by RBS sector cluster and regulatory approach

2015	EAD post CRM			RWAs			RWA density		
	IRB £m	STD £m	Total £m	IRB £m	STD £m	Total £m	IRB %	STD %	Total %
Sector cluster									
Sovereign									
Central banks	46,879	48,451	95,330	1,730	—	1,730	4	—	2
Central government	22,561	14,295	36,856	2,028	28	2,056	9	—	6
Other sovereign	4,109	442	4,551	963	225	1,188	23	51	26
Total sovereign	73,549	63,188	136,737	4,721	253	4,974	6	—	4
Financial institutions (FI)									
Banks	25,629	893	26,522	11,941	226	12,167	47	25	46
Non-bank FI (1)	30,898	19,121	50,019	15,366	12,504	27,870	50	65	56
SSPEs (2)	10,971	1,232	12,203	4,140	747	4,887	38	61	40
Total FI	67,498	21,246	88,744	31,447	13,477	44,924	47	63	51
Corporates									
Property									
- UK	41,992	3,472	45,464	20,827	3,487	24,314	50	100	53
- RoI	1,836	17	1,853	814	15	829	44	88	45
- Western Europe	2,992	378	3,370	1,587	374	1,961	53	99	58
- US	688	19	707	325	19	344	47	100	49
- RoW	930	266	1,196	792	245	1,037	85	92	87
Total property	48,438	4,152	52,590	24,345	4,140	28,485	50	100	54
Natural resources (3)									
- Oil & Gas	5,467	139	5,606	2,481	133	2,614	45	96	47
- Mining & Metals	1,497	58	1,555	690	60	750	46	103	48
- Electricity	5,133	72	5,205	2,586	49	2,635	50	68	51
- Water & Waste	5,805	68	5,873	1,511	53	1,564	26	78	27
Total natural resources	17,902	337	18,239	7,268	295	7,563	41	88	41
<i>Of which: commodity traders</i>									
776	—	776	365	—	365	47	100	47	
Transport									
- Shipping	5,811	1,698	7,509	3,790	1,698	5,488	65	100	73
- Automotive	8,580	87	8,667	3,222	80	3,302	38	92	38
- Other	8,890	440	9,330	3,964	162	4,126	45	37	44
Total transport	23,281	2,225	25,506	10,976	1,940	12,916	47	87	51
Manufacturing									
	22,811	661	23,472	9,430	566	9,996	41	86	43
Retail & Leisure									
	20,071	1,972	22,043	12,207	1,936	14,143	61	98	64
Services									
	22,080	973	23,053	12,884	903	13,787	58	93	60
TMT (4)									
	7,424	370	7,794	4,495	338	4,833	61	91	62
Total corporates	162,007	10,690	172,697	81,605	10,118	91,723	50	95	53
<i>Of which: total commodity traders</i>	1,350	—	1,350	623	—	623	46	100	46
Personal									
Mortgages									
- UK	126,295	8,087	134,382	9,397	3,336	12,733	7	41	9
- RoI	14,048	18	14,066	11,564	12	11,576	82	67	82
- Western Europe	—	228	228	—	97	97	—	43	43
- US	—	111	111	—	45	45	—	41	41
- RoW	—	716	716	—	285	285	—	40	40
Total mortgages	140,343	9,160	149,503	20,961	3,775	24,736	15	41	17
Other personal	29,659	4,731	34,390	11,276	3,468	14,744	38	73	43
Total personal	170,002	13,891	183,893	32,237	7,243	39,480	19	52	21
Other items	—	9,359	9,359	—	8,677	8,677	—	93	93
Total	473,056	118,374	591,430	150,010	39,768	189,778	32	34	32

For the notes to this table refer to page 24.

Credit risk

Total credit risk

CR 1: Credit risk RWA density by RBS sector cluster and regulatory approach *continued*

2014 (excluding Citizens)	EAD post CRM			RWAs			RWA density		
	IRB £m	STD £m	Total £m	IRB £m	STD £m	Total £m	IRB %	STD %	Total %
Sector cluster									
Sovereign									
Central banks	44,007	48,263	92,270	1,632	78	1,710	4	—	2
Central government	16,373	9,934	26,307	1,774	61	1,835	11	1	7
Other sovereign	4,937	708	5,645	1,250	372	1,622	25	53	29
Total sovereign	65,317	58,905	124,222	4,656	511	5,167	7	1	4
Financial institutions (FI)									
Banks	32,777	1,449	34,226	15,089	341	15,430	46	24	45
Non-bank FI (1)	41,420	11,961	53,381	15,585	6,153	21,738	38	51	41
SSPEs (2)	17,504	1,518	19,022	6,216	1,321	7,537	36	87	40
Total FI	91,701	14,928	106,629	36,890	7,815	44,705	40	52	42
Corporates									
Property									
- UK	47,837	3,412	51,249	23,634	3,368	27,002	49	99	53
- RoI	7,666	30	7,696	1,260	33	1,293	16	110	17
- Western Europe	4,660	430	5,090	2,348	445	2,793	50	103	55
- US	1,384	28	1,412	754	27	781	54	96	55
- RoW	2,083	335	2,418	1,362	269	1,631	65	80	67
Total property	63,630	4,235	67,865	29,358	4,142	33,500	46	98	49
Natural resources (3)									
- Oil & Gas	15,704	173	15,877	6,864	158	7,022	44	91	44
- Mining & Metals	3,744	74	3,818	2,602	67	2,669	69	91	70
- Electricity	9,757	226	9,983	4,261	164	4,425	44	73	44
- Water & Waste	6,415	51	6,466	2,105	35	2,140	33	69	33
Total natural resources	35,620	524	36,144	15,832	424	16,256	44	81	45
<i>Of which: commodity traders</i>									
	1,775	77	1,852	973	77	1,050	55	100	57
Transport									
- Shipping	8,332	2,220	10,552	5,352	2,225	7,577	64	100	72
- Automotive	9,148	80	9,228	3,667	71	3,738	40	89	41
- Other	12,120	792	12,912	5,947	451	6,398	49	57	50
Total transport	29,600	3,092	32,692	14,966	2,747	17,713	51	89	54
Manufacturing									
	29,450	842	30,292	12,674	752	13,426	43	89	44
Retail & Leisure									
	24,563	2,400	26,963	14,941	2,193	17,134	61	91	64
Services									
	23,489	1,594	25,083	13,328	1,312	14,640	57	82	58
TMT (4)	13,556	569	14,125	7,080	551	7,631	52	97	54
Total corporates	219,908	13,256	233,164	108,179	12,121	120,300	49	91	52
<i>Of which: total commodity traders</i>									
	2,981	90	3,071	1,474	88	1,562	49	98	51
Personal									
Mortgages									
- UK	114,645	7,703	122,348	10,721	3,085	13,806	9	40	11
- RoI	15,514	36	15,550	13,133	17	13,150	85	47	85
- Western Europe	—	312	312	—	124	124	—	40	40
- US	—	87	87	—	37	37	—	43	43
- RoW	—	680	680	—	268	268	—	39	39
Total mortgages	130,159	8,818	138,977	23,854	3,531	27,385	18	40	20
Other personal	31,628	4,593	36,221	13,233	3,283	16,516	42	71	46
Total personal	161,787	13,411	175,198	37,087	6,814	43,901	23	51	25
Other items	4,466	16,546	21,012	3,012	14,779	17,791	67	89	85
Total	543,179	117,046	660,225	189,824	42,040	231,864	35	36	35

For the notes to this table refer to page 24.

Credit risk

Total credit risk

CR 1: Credit risk RWA density by RBS sector cluster and regulatory approach *continued*

2014 (including Citizens)	EAD post CRM			RWAs			RWA density		
	IRB £m	STD £m	Total £m	IRB £m	STD £m	Total £m	IRB %	STD %	Total %
Sector cluster									
Sovereign									
Central banks	44,007	50,539	94,546	1,632	78	1,710	4	—	2
Central government	16,373	9,944	26,317	1,775	61	1,836	11	1	7
Other sovereign	4,936	6,548	11,484	1,250	386	1,636	25	6	14
Total sovereign	65,316	67,031	132,347	4,657	525	5,182	7	1	4
Financial institutions (FI)									
Banks	32,777	2,081	34,858	15,089	488	15,577	46	23	45
Non-bank FI (1)	41,420	22,535	63,955	15,585	9,960	25,545	38	44	40
SSPEs (2)	17,504	2,634	20,138	6,216	4,410	10,626	36	167	53
Total FI	91,701	27,250	118,951	36,890	14,858	51,748	40	55	44
Corporates									
Property									
- UK	48,081	3,463	51,544	23,736	3,390	27,126	49	98	53
- RoI	7,541	31	7,572	1,283	33	1,316	17	106	17
- Western Europe	4,625	431	5,056	2,321	445	2,766	50	103	55
- US	1,334	7,481	8,815	722	7,551	8,273	54	101	94
- RoW	2,048	284	2,332	1,296	249	1,545	63	88	66
Total property	63,629	11,690	75,319	29,358	11,668	41,026	46	100	54
Natural resources (3)									
- Oil & Gas	15,704	1,876	17,580	6,864	1,665	8,529	44	89	49
- Mining & Metals	3,744	635	4,379	2,602	660	3,262	69	104	74
- Electricity	9,758	767	10,525	4,262	579	4,841	44	75	46
- Water & Waste	6,415	303	6,718	2,105	282	2,387	33	93	36
Total natural resources	35,621	3,581	39,202	15,833	3,186	19,019	44	89	49
Transport									
- Shipping	8,332	2,571	10,903	5,790	2,575	8,365	69	100	77
- Automotive	9,148	816	9,964	3,667	835	4,502	40	102	45
- Other	12,120	2,481	14,601	5,509	2,030	7,539	45	82	52
Total transport	29,600	5,868	35,468	14,966	5,440	20,406	51	93	58
Manufacturing									
Manufacturing	29,450	8,430	37,880	12,673	8,257	20,930	43	98	55
Retail & Leisure									
Retail & Leisure	24,564	8,262	32,826	14,940	8,027	22,967	61	97	70
Services									
Services	23,489	8,426	31,915	13,327	8,350	21,677	57	99	68
TMT (4)									
TMT (4)	13,555	2,790	16,345	7,079	2,806	9,885	52	101	60
Total corporates	219,908	49,047	268,955	108,176	47,734	155,910	49	97	58
Of which: total commodity traders	2,981	90	3,071	1,474	88	1,562	49	98	51
Personal									
Mortgages									
- UK	114,645	7,794	122,439	10,720	3,121	13,841	9	40	11
- RoI	15,514	37	15,551	13,133	18	13,151	85	49	85
- Western Europe	—	311	311	—	124	124	—	40	40
- US	—	21,088	21,088	—	10,352	10,352	—	49	49
- RoW	—	589	589	—	232	232	—	39	39
Total mortgages	130,159	29,819	159,978	23,853	13,847	37,700	18	46	24
Other personal	31,628	15,971	47,599	13,233	11,805	25,038	42	74	53
Total personal	161,787	45,790	207,577	37,086	25,652	62,738	23	56	30
Other items	4,465	18,363	22,828	3,012	16,580	19,592	67	90	86
Total	543,177	207,481	750,658	189,821	105,349	295,170	35	51	39

Notes:

(1) Non-bank financial institutions, such as US agencies, insurance companies, pension funds, hedge and leverage funds, broker-dealers and non-bank subsidiaries of banks.

(2) Securitisation structured purpose entities (SSPEs) primarily relate to securitisation related vehicles.

(3) Within the natural resources sector cluster, EAD relating to commodity traders fell 56% to £1.4 billion and associated RWAs fell 44% to £0.8 billion. The exposure is primarily to the largest physical commodity traders. RBS's ongoing exposure is predominantly short-dated and collateralised and comprises uncommitted facilities used for working capital.

(4) Telecommunications, media and technology.

Credit risk

Key points

Overview

- Total credit risk exposures declined significantly in 2015, with EAD post CRM falling 21% to £591 billion and RWAs falling 36% to £190 billion. The main drivers of the reduction were the sale of Citizens and run-off in Capital Resolution. The large reductions are in line with RBS's strategy to become a simpler and stronger UK-based bank. The sharper decline in RWAs than in EAD was driven by non-counterparty credit risk, as explained below.
- For commentary on the drivers separated by non-counterparty credit risk and counterparty credit risk, refer to the key points after Table CR 10.

Notable sector cluster movements - IRB approach

- Overall, EAD under the IRB approach fell 13% to £473 billion and RWAs fell 21% to £150 billion.

Sovereign

- Sovereign sector EAD rose 13% to £73.5 billion and RWAs rose 1% to £4.7 billion, resulting in RWA density falling from 7% to 6%.
- The upward movement reflects increased placements by Treasury and Ulster Bank RoI with central banks in Europe, primarily in Germany.

Financial institutions

- Financial institutions EAD fell 26% to £67 billion and RWAs fell 15% to £31 billion, resulting in RWA density edging up from 40% to 47%. The downward movement in exposure was driven: (i) in the case of non-counterparty credit risk, by reduced individual counterparty limits; and (ii) in the case of counterparty credit risk, by Capital Resolution reductions. Both activities were in line with strategy.

Property

- Property sector EAD fell 24% to £48 billion and RWAs fell 17% to £24 billion, resulting in RWA density edging up from 46% to 50%. The reduction reflected disposals and run-off in Capital Resolution. The greater fall in EAD than RWAs in percentage terms was because a large number of disposed assets were already in default and therefore their disposal had no impact on RWAs.

Natural resources

Oil & Gas

- Oil & Gas sector EAD fell 65% to £5.5 billion and RWAs fell 64% to £2.5 billion, resulting in RWA density rising from 44% to 45%. The reduction in exposure reflected proactive credit management, continuing sales of loans and run-off in Capital Resolution in the Rest of the World and the US.

Electricity

- Electricity sector EAD fell 47% to £5 billion and RWAs fell 39% to £2.6 billion, resulting in RWA density rising from 44% to 50%. The reduction in exposure was due to disposals in Capital Resolution in North America, the Rest of the World and Western Europe (excluding the UK and the Republic of Ireland). The greater fall in EAD than in RWAs was due to a counterparty downgrade.

Mining & Metals

- Mining & Metals EAD fell 60% to £1.5 billion and RWAs fell 73% to £0.7 billion, resulting in RWA density falling from 69% to 46%. The reduction in exposure was driven by the disposal of exposures to more vulnerable sub-sectors in Capital Resolution, in line with strategy. The majority of ongoing exposure in this sector was to large international customers and matures within five years.

Transport

Shipping

- Shipping sector EAD fell 29% to £5.8 billion and RWAs fell 29% to £3.8 billion, resulting in RWA density remaining flat at around 65%. The reduction was driven by repayments and sales in line with strategy. The ongoing exposure was largely in Capital Resolution.

Retail & Leisure

- Retail & Leisure sector EAD fell 18% to £20 billion and RWAs fell 18% to £12.2 billion, resulting in RWA density remaining flat at 61%. The reduction in EAD reflected continuing sales of loans and run-off in Capital Resolution and Commercial Banking.

Personal

Mortgages

- Mortgage sector EAD increased 8% to £140 billion. The increase was driven by business strategy to increase mortgage lending in UK PBB on the back of the improving UK housing and mortgage market and sustained house price growth in 2015.
- RWAs fell 12% to £21 billion, primarily driven by regular PD model recalibrations undertaken to reflect recently observed default rates, partly offset by the increase in the mortgage book.

Notable sector cluster movements - STD approach

- Overall, EAD under the STD approach fell 43% to £118 billion and RWAs fell 62% to £40 billion. The largest driver was the sale of Citizens, which accounted for an £89 billion EAD decline and a £62 billion RWA decline.
- The following sectors experienced the greatest impact from the sale of Citizens in EAD terms: sovereign (£4 billion), financial institutions (£6 billion), corporates (£38 billion), mortgages (£21 billion) and other personal (£11 billion).
- Stripping out the impact of the sale of Citizens, overall RWA density under the STD approach fell from 36% to 34%. This reduction was driven by a change in treatment of non-credit assets, which are now subject to the STD approach only, and a £1.3 billion reduction in intra-Group exposures.

For additional commentary on movements in credit risk exposure by sector, refer to the Credit risk section of the 2015 ARA.

Credit risk

Total credit risk

CR 2: Total credit risk EAD, RWAs and minimum capital requirements by RBS sector cluster

Sector cluster		Non-counterparty credit risk				Counterparty credit risk				Total credit risk			
		EAD pre CRM £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m
2015													
Sovereigns and quasi-sovereigns	Central banks	87,821	87,820	1,723	138	7,510	7	1	95,330	1,730	139		
	Central governments	36,103	36,102	1,915	153	754	141	11	36,856	2,056	164		
	Other sovereign	5,388	3,497	813	65	1,054	375	30	4,551	1,188	95		
Financial institutions and securitisation vehicles	Banks	15,844	15,014	3,696	296	11,508	8,471	679	26,522	12,167	975		
	Non-bank financial institutions	32,645	30,074	19,629	1,570	19,945	8,241	659	50,019	27,870	2,229		
	SSPEs	9,992	9,992	3,745	300	2,211	1,142	91	12,203	4,887	391		
Corporates	Property	54,181	50,664	27,137	2,170	1,926	1,348	108	52,590	28,485	2,278		
	Natural resources	14,726	13,123	6,288	503	5,116	1,275	102	18,239	7,563	605		
	Transport	24,609	22,642	11,999	960	2,864	917	73	25,506	12,916	1,033		
	Manufacturing	26,465	22,850	9,774	782	622	222	18	23,472	9,996	800		
	Retail and leisure	23,569	21,590	13,889	1,111	453	254	20	22,043	14,143	1,131		
	Services	23,226	21,932	13,100	1,048	1,121	687	55	23,053	13,787	1,103		
	Telecoms, media and technology	8,927	7,289	4,596	368	505	237	19	7,794	4,833	387		
Personal	Mortgages	149,503	149,503	24,736	1,979	—	—	—	149,503	24,736	1,979		
	Other personal	35,221	34,345	14,702	1,176	45	42	3	34,390	14,744	1,179		
Not allocated to sector cluster		9,355	9,355	8,675	694	4	2	—	9,359	8,677	694		
Total		557,575	535,792	166,417	13,313	55,638	23,361	1,869	591,430	189,778	15,182		

Credit risk

Total credit risk

CR 2: Total credit risk EAD, RWAs and minimum capital requirements by RBS sector cluster *continued*

Sector cluster		Non-counterparty credit risk				Counterparty credit risk				Total credit risk			
		EAD		RWAs	Minimum capital requirement	EAD		RWAs	Minimum capital requirement	EAD		RWAs	Minimum capital requirement
		pre CRM £m	post CRM £m			post CRM £m	£m			post CRM £m	£m		
2014													
Sovereigns and quasi-sovereigns	Central banks	83,868	83,834	1,607	129	10,712	103	8	94,546	1,710	137		
	Central governments	25,575	25,575	1,697	136	742	139	11	26,317	1,836	147		
	Other sovereign	11,775	9,943	1,192	95	1,541	444	35	11,484	1,636	130		
Financial institutions and securitisation vehicles	Banks	20,331	19,026	5,321	426	15,832	10,256	820	34,858	15,577	1,246		
	Non-bank financial institutions	38,283	34,942	16,598	1,328	29,013	8,947	716	63,955	25,545	2,044		
	SSPEs	17,265	17,244	9,147	732	2,894	1,479	118	20,138	10,626	850		
Corporates	Property	75,215	71,817	38,334	3,067	3,502	2,692	215	75,319	41,026	3,282		
	Natural resources	34,890	32,893	16,903	1,353	6,309	2,116	169	39,202	19,019	1,522		
	Transport	33,908	32,111	18,940	1,516	3,357	1,466	117	35,468	20,406	1,633		
	Manufacturing	40,369	36,631	20,439	1,636	1,249	491	39	37,880	20,930	1,675		
	Retail and leisure	35,023	32,121	22,474	1,798	705	493	39	32,826	22,967	1,837		
	Services	32,964	30,490	20,568	1,645	1,425	1,109	89	31,915	21,677	1,734		
	Telecoms, media and technology	18,235	15,516	9,374	750	829	511	41	16,345	9,885	791		
Personal	Mortgages	159,978	159,978	37,700	3,016	—	—	—	159,978	37,700	3,016		
	Other personal	48,543	47,545	24,992	1,999	54	46	4	47,599	25,038	2,003		
Not allocated to sector cluster		22,775	22,775	19,505	1,558	53	87	9	22,828	19,592	1,567		
Total		698,997	672,441	264,791	21,184	78,217	30,379	2,430	750,658	295,170	23,614		

Note:

(1) The credit valuation adjustment (CVA) component of counterparty credit risk RWAs and minimum capital requirement were £5.9 billion and £0.5 billion, respectively at 31 December 2015 (2014 - £7.2 billion and £0.6 billion). For more information on CVA, refer to page 70.

Credit risk

Total credit risk

CR 3: Balance sheet to EAD bridge

The table below provides a bridge between the balance sheet and credit EAD by balance sheet caption.

2015	Balance sheet £bn	Consolidation differences (1) £bn	Regulatory consolidation £bn	Other regulatory adjustments								Total drawn EAD £bn	Undrawn and off-balance sheet EAD £bn	Total EAD £bn
				Within the scope of market risk (2) £bn	Credit provisions (3) £bn	Netting and collateral (4) £bn	Capital deduction (5) £bn	Disposal groups (6) £bn	Methodology differences and reclassifications (7) £bn					
Cash and balances at central banks	79.4	0.5	79.9	—	—	—	—	0.5	—	80.5	—	—	80.5	
Reverse repurchase agreements and stock borrowing	39.8	—	39.8	—	—	(23.7)	—	—	—	—	16.1	—	16.1	
Loans and advances	324.7	6.3	331.0	(0.3)	7.1	(28.3)	—	2.4	(10.6)	301.4	79.7	381.1	—	
Debt securities	82.1	1.2	83.3	(35.7)	0.2	—	—	0.5	(0.1)	48.2	—	—	48.2	
Equity shares	1.4	0.1	1.4	(0.7)	0.1	—	—	—	—	—	0.8	—	0.8	
Settlement balances	4.1	—	4.1	(4.1)	—	—	—	—	—	—	—	—	—	
Derivatives	262.5	0.4	262.9	—	0.8	(214.8)	—	—	(9.4)	39.5	—	—	39.5	
Intangible assets	6.5	—	6.5	—	—	—	(6.5)	—	—	—	—	—	—	
Property, plant and equipment	4.5	—	4.5	—	—	—	—	—	(0.1)	4.4	—	—	4.4	
Deferred tax	2.6	—	2.6	—	—	—	(2.6)	—	0.7	0.7	—	—	0.7	
Prepayments, accrued income and other assets	4.2	(0.7)	3.5	—	—	—	—	0.1	—	3.6	—	—	3.6	
Assets of disposal groups	3.5	—	3.5	—	—	—	—	(3.5)	—	—	—	—	—	
Total assets	815.4	7.8	823.2	(40.8)	8.2	(266.8)	(9.2)	—	(19.4)	495.2	79.7	574.9	—	
Contingent obligations											16.5	16.5	—	
											96.2	591.4	—	

For the notes to this table refer to the following page.

Credit risk

Total credit risk

CR 3: Balance sheet to EAD bridge *continued*

	Balance sheet £bn	Consolidation differences (1) £bn	Regulatory consolidation £bn	Other regulatory adjustments					Total drawn EAD £bn	Undrawn and off-balance sheet EAD £bn	Total EAD £bn
				Within the scope of market risk (2) £bn	Credit provisions (3) £bn	Netting and collateral (4) £bn	Capital deduction (5) £bn	Disposal groups (6) £bn			
2014											
Cash and balances at central banks	74.9	0.6	75.5	—	—	—	—	0.6	—	76.1	—
Reverse repurchase agreements and stock borrowing	64.7	—	64.7	—	—	(37.8)	—	—	—	26.9	—
Loans and advances	357.3	6.5	363.8	—	17.5	(33.4)	—	62.3	(11.2)	399.0	100.6
Debt securities	86.6	1.0	87.6	(49.3)	0.3	—	—	15.3	(0.2)	53.7	—
Equity shares	5.6	—	5.6	(4.9)	0.1	—	—	0.6	0.3	1.7	—
Settlement balances	4.7	—	4.7	(4.7)	—	—	—	—	—	—	—
Derivatives	353.6	0.4	354.0	—	1.4	(295.3)	—	0.4	(9.1)	51.4	—
Intangible assets	7.8	—	7.8	—	—	—	(8.4)	0.6	—	—	—
Property, plant and equipment	6.2	(0.4)	5.8	—	—	—	—	0.5	0.5	6.8	—
Deferred tax	1.9	—	1.9	—	—	—	(1.6)	—	(0.2)	0.1	—
Prepayments, accrued income and other assets	5.9	(0.5)	5.4	—	—	—	—	1.7	(0.1)	7.0	—
Assets of disposal groups	82.0	—	82.0	—	—	—	—	(82.0)	—	—	—
Total assets	1,051.2	7.6	1,058.8	(58.9)	19.3	(366.5)	(10.0)	—	(20.0)	622.7	100.6
Contingent obligations										27.4	27.4
										128.0	750.7

Notes:

- (1) Represents proportional consolidation of associates and deconsolidation of certain subsidiaries, as required by regulatory rules.
- (2) The exposures in regulatory trading book businesses are subject to market risk and are therefore excluded from EAD.
- (3) Impairment loss provisions on loans and advances and securities, and credit valuation adjustment on derivatives.
- (4) Includes:
 - Reverse repos: reflects regulatory approach for securities financing transactions including netting of collateral and cash legs.
 - Loans and advances: cash collateral pledged with counterparties in relation to net derivative liability positions.
 - Derivatives: impact of master netting arrangements.
- (5) Capital deductions are excluded as EAD only captures exposures for credit RWAs.
- (6) Amounts reclassified to balance sheet lines for EAD.
- (7) Primarily includes:
 - Loans and advances: offset related to cash management pooling arrangements not allowed under IFRS and standardised approach credit risk mitigation.
 - Derivatives: EAD valuation adjustments offset by difference between netting arrangements and netting within regulatory model sets.
 - Property, plant and equipment: includes residual value of operating leases.

Credit risk

Total credit risk

CR 4: Total credit risk EAD by RBS sector cluster, geographical region and residual maturity

Sector cluster		EAD post CRM						By residual maturity			
		By geographical region				After 1 year					
		UK £m	ROI £m	Other Europe (excl. UK & RoI) £m	US £m	RoW £m	Total £m	Within 1 year £m	but within 5 years £m	After 5 years £m	
2015											
Sovereigns and quasi-sovereigns	Central banks	47,990	1,597	24,925	15,518	5,300	95,330	69,705	25,625	—	
	Central governments	14,206	—	10,852	10,264	1,534	36,856	11,686	12,079	13,091	
	Other sovereign	2,052	75	1,876	102	446	4,551	1,063	1,381	2,107	
Financial institutions and securitisation vehicles	Banks	1,722	129	13,441	3,429	7,801	26,522	10,642	11,312	4,568	
	Non-bank financial institutions	24,130	500	6,099	7,666	11,624	50,019	18,693	29,508	1,818	
	SSPEs	6,376	239	1,977	2,971	640	12,203	3,948	2,276	5,979	
Corporates	Property	45,464	1,853	3,370	707	1,196	52,590	11,721	26,848	14,021	
	Natural resources	9,870	666	4,354	1,466	1,883	18,239	4,458	11,206	2,575	
	Transport	13,454	484	3,883	817	6,868	25,506	6,949	13,958	4,599	
	Manufacturing	12,706	1,359	3,935	4,243	1,229	23,472	9,082	11,293	3,097	
	Retail and leisure	17,635	1,350	1,485	1,147	426	22,043	7,094	10,776	4,173	
	Services	20,135	892	986	588	452	23,053	6,432	8,920	7,701	
	Telecoms, media and technology	3,893	145	2,564	652	540	7,794	2,646	4,511	637	
Personal	Mortgages	134,382	14,066	228	111	716	149,503	3,539	9,303	136,661	
	Other personal	32,222	747	260	74	1,087	34,390	26,489	6,015	1,886	
Not allocated to sector cluster							9,359				
		386,237	24,102	80,235	49,755	41,742	591,430	194,147	185,011	202,913	
2014											
Sovereigns and quasi-sovereigns	Central banks	48,137	596	13,525	27,499	4,789	94,546	85,372	8,869	305	
	Central governments	10,065	—	8,889	5,267	2,096	26,317	6,752	10,421	9,144	
	Other sovereign	2,268	69	2,048	6,001	1,098	11,484	910	2,348	8,226	
Financial institutions and securitisation vehicles	Banks	3,969	275	16,453	3,853	10,308	34,858	16,746	14,089	4,023	
	Non-bank financial institutions	25,060	657	9,403	23,357	5,478	63,955	24,400	28,222	11,333	
	SSPEs	8,520	236	3,214	6,311	1,857	20,138	4,901	5,110	10,127	
Corporates	Property	51,248	7,696	5,091	8,866	2,418	75,319	21,858	35,143	18,318	
	Natural resources	10,738	662	6,130	13,192	8,480	39,202	10,959	24,495	3,748	
	Transport	13,727	679	4,994	5,045	11,023	35,468	12,361	17,804	5,303	
	Manufacturing	13,251	1,756	6,042	12,384	4,447	37,880	14,888	19,267	3,725	
	Retail and leisure	19,293	2,040	2,175	7,755	1,563	32,826	10,886	15,904	6,036	
	Services	20,034	1,347	1,341	7,796	1,397	31,915	8,473	13,733	9,709	
	Telecoms, media and technology	4,189	182	3,225	6,751	1,998	16,345	5,430	9,891	1,024	
Personal	Mortgages	122,439	15,551	311	21,088	589	159,978	4,989	13,659	141,330	
	Other personal	33,924	966	305	11,464	940	47,599	29,539	10,977	7,083	
Not allocated to sector cluster							22,828				
		386,862	32,712	83,146	166,629	58,481	750,658	258,464	229,932	239,434	
Of which: Citizens							88,131				

Credit risk

Total credit risk

CR 5: Credit risk EAD and RWAs by segment and by regulatory approach and CRR exposure class

The following table shows EAD post CRM and RWAs for the segments analysed by regulatory approach.

Non-counterparty credit risk 2015	UK PBB		Ulster Bank Roi		Commercial Banking		Private Banking		RBSI		CIB		Capital Resolution		W&G		Central items & other		Total		
	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	EAD post	CRM £m	RWAs £m
		RWAs £m		RWAs £m		RWAs £m		RWAs £m		RWAs £m		RWAs £m		RWAs £m		RWAs £m		RWAs £m		RWAs £m	
<i>IRB approach</i>																					
Central governments and banks	9,234	403	8,704	598	20,206	905	—	—	2,291	100	8,366	484	17,798	1,487	—	—	—	—	66,599	3,977	
Institutions	1,149	209	1,671	371	5,346	1,113	—	—	284	51	1,142	218	3,371	997	3	—	—	—	12,966	2,959	
Corporates																					
- property	505	267	1,113	739	34,469	16,873	—	—	—	—	181	68	4,255	1,381	3,621	2,660	—	—	44,144	21,988	
- other	1,234	915	3,729	2,794	74,311	37,782	—	—	358	383	7,628	2,636	20,302	9,959	4,696	3,086	—	—	112,258	57,555	
Retail																					
- mortgages	115,831	8,683	14,048	11,564	—	—	—	—	—	—	—	—	—	—	10,461	713	—	—	140,340	20,960	
- other	32,434	11,943	1,170	978	1,409	670	—	—	—	—	—	—	40	14	4,013	1,651	—	—	39,066	15,256	
Equities (1)	59	173	39	119	411	919	—	—	14	43	55	166	312	1,083	—	—	—	—	890	2,503	
Securitisation positions	123	10	72	6	1,502	1,249	—	—	31	3	3,686	325	3,176	1,221	—	—	—	—	8,590	2,814	
Non-credit obligation assets	—	—	—	—	792	253	—	—	—	—	—	—	325	160	—	—	—	—	1,117	413	
Total IRB	160,569	22,603	30,546	17,169	138,446	59,764	—	—	2,978	580	21,058	3,897	49,579	16,302	22,794	8,110	—	—	425,970	128,425	
<i>STD approach</i>																					
Government and multilateral institutions (2)	9,378	4	4,966	—	18,541	—	4,941	—	2,446	192	6,485	—	12,264	4	—	—	3,345	6	62,366	206	
Institutions	5	1	3	1	10	3	22	5	16	3	3	1	210	99	—	—	621	126	890	239	
Corporates	368	313	461	387	3,142	2,937	949	918	4,481	4,459	283	137	8,425	7,867	116	121	563	626	18,788	17,765	
Retail	123	90	12	7	1,081	641	1,570	1,173	93	70	—	—	657	493	1	1	70	52	3,607	2,527	
Secured by mortgages on																					
- residential property	130	46	—	—	95	100	6,389	2,235	2,843	1,211	—	—	616	614	8	12	511	179	10,592	4,397	
- commercial real estate	—	1	1	1	284	335	2,030	2,033	796	790	—	—	8	7	57	74	7	7	3,183	3,248	
Past due items	12	16	15	23	53	78	384	427	69	81	—	—	76	87	23	33	—	—	632	745	
Exposures with particularly high risk	—	—	—	—	—	—	191	286	—	—	—	—	—	—	—	—	—	—	191	286	
Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	144	15	144	15	
Collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—	12	12	—	—	—	—	12	12	
Equity claims	66	136	38	79	156	308	38	103	16	34	83	138	164	257	—	—	43	226	604	1,281	
Other items	3,476	2,236	499	389	1,417	1,149	391	446	171	121	937	885	1,654	1,545	210	100	58	400	8,813	7,271	
Total STD	13,558	2,843	5,995	887	24,779	5,551	16,905	7,626	10,931	6,961	7,791	1,161	24,086	10,985	415	341	5,362	1,637	109,822	37,992	
Total IRB and STD	174,127	25,446	36,541	18,056	163,225	65,315	16,905	7,626	13,909	7,541	28,849	5,058	73,665	27,287	23,209	8,451	5,362	1,637	535,792	166,417	

For the notes to this table refer to page 34.

Credit risk

Total credit risk

CR 5: Credit risk EAD and RWAs by segment and by regulatory approach and CRR exposure class *continued*

Counterparty credit risk 2015	UK PBB		Ulster Bank R01		Commercial Banking		Private Banking		RBSI		CIB		Capital Resolution		W&G		Central items & other		Total	
	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m
<i>IRB approach</i>																				
Central governments and banks	—	—	3	—	—	—	—	—	—	—	3,795	231	3,230	119	—	—	—	—	7,028	350
Institutions	—	—	19	12	—	—	—	—	—	—	6,007	3,987	4,915	4,489	—	—	—	—	10,941	8,488
Corporates																				
- property	—	—	1	1	—	—	—	—	—	—	354	202	1,527	1,098	—	—	—	—	1,882	1,301
- other	1	1	84	60	2	—	—	—	8	8	15,366	5,607	10,121	5,170	—	—	—	—	25,582	10,846
Securitisation positions	—	—	—	—	—	—	—	—	—	—	483	85	1,169	516	—	—	—	—	1,652	601
Total IRB	1	1	107	73	2	—	—	—	8	8	26,005	10,112	20,962	11,392	—	—	—	—	47,085	21,586
<i>STD approach</i>																				
Government and multilateral institutions (2)	—	—	—	—	—	—	—	—	—	—	1,232	1	1,368	32	—	—	2	—	2,602	33
Institutions	—	—	—	—	—	—	—	—	—	—	4,486	493	192	61	—	—	9	4	4,687	558
Corporates	—	—	—	—	—	—	4	5	—	—	686	628	525	504	—	—	4	5	1,219	1,142
Retail	—	—	—	—	—	—	32	28	—	—	—	—	—	—	—	—	13	14	45	42
Total STD	—	—	—	—	—	—	36	33	—	—	6,404	1,122	2,085	597	—	—	28	23	8,553	1,775
Total IRB and STD	1	1	107	73	2	—	36	33	8	8	32,409	11,234	23,047	11,989	—	—	28	23	55,638	23,361

For the notes to this table refer to page 34.

Credit risk

Total credit risk

CR 5: Credit risk EAD and RWAs by segment and by regulatory approach and CRR exposure class *continued*

	UK PBB		Ulster Bank Rol		Commercial Banking		Private Banking		RBSI		CIB		Capital Resolution		W&G		Central items & other (3)		Total		
	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	EAD post CRM	RWAs	
Non-counterparty credit risk 2014	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
<i>IRB approach</i>																					
Central governments and banks	9,734	421	5,916	425	10,184	455	—	—	823	35	7,066	878	21,175	1,195	—	—	—	—	54,898	3,409	
Institutions	1,071	184	1,103	317	3,768	640	—	—	99	17	994	627	10,703	3,026	215	8	—	—	17,953	4,819	
Corporates																					
- property	616	320	1,238	833	33,572	16,559	—	—	—	—	1,181	609	16,728	4,064	3,974	3,127	—	—	57,309	25,512	
- other	407	542	3,781	2,998	55,720	29,581	—	—	148	243	14,957	5,584	74,183	34,558	4,734	3,222	—	—	153,930	76,728	
Retail																					
- mortgages	104,190	9,776	15,514	13,133	—	—	—	—	—	—	—	—	—	—	10,447	940	—	—	130,151	23,849	
- other	34,621	14,701	1,461	1,421	1,501	455	—	—	50	20	307	123	605	224	3,968	1,126	—	—	42,513	18,070	
Equities (1)	34	99	19	61	387	867	—	—	3	9	47	143	509	1,600	—	—	—	—	999	2,779	
Securitisation positions	39	4	12	1	1,469	1,649	—	—	3	—	1,435	417	12,218	2,746	—	—	—	—	15,176	4,817	
Non-credit obligation assets	1,881	746	293	212	1,179	770	—	—	594	81	903	842	793	661	—	—	—	—	5,643	3,312	
Total IRB	152,593	26,793	29,337	19,401	107,780	50,976	—	—	1,720	405	26,890	9,223	136,914	48,074	23,338	8,423	—	—	478,572	163,295	
<i>STD approach</i>																					
Government and multilateral institutions (2)	9,472	6	3,404	1	10,748	10	4,029	1	878	—	5,378	1	20,619	25	—	—	9,075	40	63,603	84	
Institutions	13	3	5	1	15	4	1,050	229	1	—	7	2	331	135	—	—	610	142	2,032	516	
Corporates	724	538	564	476	3,158	2,843	617	1,290	5,172	5,155	641	480	9,788	9,877	101	119	36,063	29,221	56,828	49,999	
Retail	159	115	14	8	1,693	1,002	613	287	194	118	—	—	479	375	—	—	19,896	14,812	23,048	16,717	
Secured by mortgages on																					
- residential property	157	57	—	1	124	51	7,263	2,567	2,260	812	—	1	872	615	9	11	15,201	6,252	25,886	10,367	
- commercial real estate	2	2	58	49	165	287	929	1,661	400	144	—	—	46	46	62	79	7,249	6,673	8,911	8,941	
Past due items	29	39	17	25	31	41	423	472	77	81	—	1	246	268	—	—	928	1,171	1,751	2,098	
Exposures with particularly high risk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	
Covered bonds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	132	13	132	13	
Collective investment undertakings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	29	
Equity claims	14	24	5	8	28	38	6	10	1	2	8	13	98	108	—	—	316	316	476	519	
Other items	1,399	1,442	275	354	469	511	1,445	1,127	71	91	435	560	2,985	3,040	—	—	2,735	1,883	9,814	9,008	
Securitisation positions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,358	3,204	1,358	3,204	
Total STD	11,969	2,226	4,342	923	16,431	4,787	16,375	7,644	9,054	6,403	6,498	1,087	35,464	14,489	172	209	93,564	63,728	193,869	101,496	
Total IRB and STD	164,562	29,019	33,679	20,324	124,211	55,763	16,375	7,644	10,774	6,808	33,388	10,310	172,378	62,563	23,510	8,632	93,564	63,728	672,441	264,791	

For the notes to this table refer to the following page.

Credit risk

Total credit risk

CR 5: Credit risk EAD and RWAs by segment and by regulatory approach and CRR exposure class *continued*

Counterparty credit risk 2014	UK PBB		Ulster Bank Rol		Commercial Banking		Private Banking		RBSI		CIB		Capital Resolution		W&G		Central items & other (3)		Total			
	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m	EAD post CRM £m	RWAs £m		
<i>IRB approach</i>																						
Central governments and banks	—	—	2	1	—	—	—	—	—	—	1,934	266	6,199	106	—	—	—	—	8,135	373		
Institutions	—	9	33	10	—	—	—	—	—	—	7,840	4,734	7,571	5,533	—	—	—	—	15,444	10,286		
Corporates	—	—	—	—	—	—	—	—	—	—	648	469	2,661	1,948	—	—	—	—	3,309	2,417		
- property	—	—	—	—	—	—	—	—	—	—	13	13	17,827	5,949	17,508	6,586	—	—	—	—	35,473	12,634
- others	1	2	123	83	1	1	—	—	13	13	—	—	3	6	—	—	—	—	4	9		
Equities (1)	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Securitisation positions	—	—	—	—	—	—	—	—	—	—	303	184	1,937	623	—	—	—	—	2,240	807		
Total IRB	1	11	158	94	2	4	—	—	13	13	28,552	11,602	35,879	14,802	—	—	—	—	64,605	26,526		
<i>STD approach</i>																						
Government and multilateral institutions (2)	—	—	—	—	—	—	—	—	—	—	30	1	4,803	47	—	—	—	—	4,833	48		
Institutions	—	—	—	—	—	—	—	—	—	—	244	116	30	18	—	—	—	—	18	4	292	138
Corporates	—	—	11	11	1	—	2	3	—	—	3,101	780	4,765	1,950	—	—	553	877	8,433	3,621		
Retail	—	—	—	—	—	27	23	—	—	—	3	3	4	4	—	—	15	11	49	41		
Past due items	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	2		
Other items	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—	3	3		
Total STD	—	—	11	11	1	—	32	29	—	—	3,378	900	9,602	2,019	—	—	588	894	13,612	3,853		
Total IRB and STD	1	11	169	105	3	4	32	29	13	13	31,930	12,502	45,481	16,821	—	—	588	894	78,217	30,379		

Notes:

(1) The equities exposures represent equity warrants held by RBS, granting it the option to purchase shares in corporate entities. For accounting purposes, the warrants are treated as over-the-counter derivatives and thus reported under counterparty credit risk in regulatory disclosures.

(2) Governments and multilateral institutions comprises: central governments or central banks, regional governments or local authorities, administrative bodies and non-commercial undertakings, and multilateral development banks.

(3) Includes Citizens.

Credit risk

Total credit risk

CR 6: Credit risk EAD and RWAs by significant subsidiary by regulatory approach and CRR exposure class

Non-counterparty credit risk 2015	RBS			RBS plc			NWB Plc			UBIL		
	EAD pre	EAD post	RWAs	EAD pre	EAD post	RWAs	EAD pre	EAD post	RWAs	EAD pre	EAD post	RWAs
	CRM	CRM	£m	CRM	CRM	£m	CRM	CRM	£m	CRM	CRM	£m
<i>IRB approach</i>												
Central governments and banks	66,599	66,599	3,977	59,224	59,224	2,787	144	144	4	3,335	3,335	363
Institutions	15,688	12,966	2,959	6,474	5,997	1,378	2,305	614	156	1,006	1,006	251
Corporates												
- property	47,654	44,144	21,988	26,657	24,421	12,279	16,360	15,090	8,014	2,128	2,127	764
- others	126,583	112,258	57,555	74,015	64,540	31,537	30,360	25,760	15,477	4,057	3,944	2,822
Retail												
- mortgages	140,340	140,340	20,960	34,918	34,918	2,828	89,088	89,088	5,853	14,048	14,048	11,564
- others	39,066	39,066	15,256	8,978	8,978	3,747	26,655	26,655	9,402	1,171	1,171	978
Equities (1)	890	890	2,503	286	286	842	4	4	12	5	5	19
Securitisation positions	8,591	8,591	2,814	8,335	8,335	2,392	24	24	313	—	—	—
Non-credit obligation assets	1,117	1,117	412	—	—	—	—	—	—	—	—	—
Total IRB	446,528	425,971	128,424	218,887	206,699	57,790	164,940	157,379	39,231	25,750	25,636	16,761
<i>STD approach</i>												
Governments and multilateral institutions (2)	62,366	62,364	206	58,453	58,453	2	184	184	—	8	8	1
Institutions	890	890	239	41,391	41,391	2,391	78,234	78,234	92	817	817	163
Corporates	19,887	18,788	17,765	35,410	35,297	6,369	327	327	212	283	283	283
Retail	3,732	3,607	2,527	146	146	85	449	449	276	12	12	7
Secured by mortgages on - residential property	10,592	10,592	4,398	1,040	1,040	439	3	3	4	—	—	—
Secured by mortgages on - commercial real estate	3,183	3,183	3,248	245	245	296	72	72	89	1	1	1
Past due items	632	632	745	102	102	127	25	25	37	9	9	14
Exposures with particularly high risk	191	191	286	—	—	—	—	—	—	—	—	—
Covered bonds	144	144	15	—	—	—	—	—	—	—	—	—
Collective investment undertakings	12	12	12	—	—	—	—	—	—	—	—	—
Equity claims	605	605	1,281	24,008	24,008	74,803	3,240	3,240	11,614	5	5	15
Other items	8,813	8,813	7,271	4,532	4,532	4,142	3,083	3,083	2,867	500	500	484
Total STD	111,047	109,821	37,993	165,327	165,214	88,654	85,617	85,617	15,191	1,635	1,635	968
Total IRB and STD	557,575	535,792	166,417	384,214	371,913	146,444	250,557	242,996	54,422	27,385	27,271	17,729

For the notes to this table refer to page 37.

Credit risk

Total credit risk

CR 6: Credit risk EAD and RWAs by significant subsidiary by regulatory approach and CRR exposure class *continued*

Non-counterparty credit risk 2014	RBS			RBS plc			NWB Plc			UBIL		
	EAD pre CRM £m	EAD post CRM £m	RWAs £m	EAD pre CRM £m	EAD post CRM £m	RWAs £m	EAD pre CRM £m	EAD post CRM £m	RWAs £m	EAD pre CRM £m	EAD post CRM £m	RWAs £m
<i>IRB approach</i>												
Central governments and banks	54,932	54,898	3,409	46,798	46,765	2,091	422	421	9	2,726	2,728	288
Institutions	21,085	17,953	4,819	10,031	9,154	2,640	2,800	1,366	494	719	719	251
Corporates												
- property	60,652	57,309	25,512	30,404	28,121	14,798	17,082	16,132	8,583	8,379	8,377	1,194
- others	171,867	153,930	76,728	114,408	101,739	48,191	31,136	26,173	14,526	5,710	5,609	3,263
Retail												
- mortgages	130,151	130,151	23,849	36,957	36,957	4,286	75,398	75,398	5,617	15,514	15,514	13,133
- others	42,513	42,513	18,070	10,639	10,639	4,642	28,361	28,361	10,931	1,267	1,267	1,343
Equities (1)	999	999	2,779	147	147	442	4	4	10	41	41	122
Securitisation positions	15,197	15,176	4,817	14,264	14,264	4,116	22	22	280	—	—	—
Non-credit obligation assets	5,644	5,643	3,313	883	883	519	1,035	1,035	266	462	462	350
Total IRB	503,040	478,572	163,296	264,531	248,669	81,725	156,260	148,912	40,716	34,818	34,717	19,944
<i>STD approach</i>												
Governments and multilateral institutions (2)	63,598	63,596	84	52,298	52,299	24	205	204	6	—	—	—
Exposures to international organisations	7	7	—	—	—	—	—	—	—	—	—	—
Institutions	2,032	2,032	516	38,161	38,161	3,547	77,589	77,588	185	1,236	1,586	362
Corporates	58,566	56,828	49,999	50,133	49,983	8,478	3,036	3,037	919	393	49	493
Retail	23,330	23,048	16,717	242	242	138	683	683	414	13	13	8
Secured by mortgages on - residential property	25,887	25,886	10,367	1,363	1,363	571	6	6	6	—	—	—
Secured by mortgages on - commercial real estate	8,912	8,911	8,941	213	213	236	112	112	113	8	8	8
Past due items	1,815	1,751	2,098	152	152	161	19	19	28	77	22	29
Exposures with particularly high risk	1	1	1	—	—	—	—	—	—	—	—	—
Covered bonds	132	132	13	—	—	—	—	—	—	—	—	—
Collective investment undertakings	29	29	29	—	—	—	—	—	—	—	—	—
Equity claims	476	476	519	30,213	30,212	101,192	3,791	3,791	17,547	1	1	4
Other items	9,814	9,814	9,007	3,998	3,998	4,060	1,599	1,599	1,734	100	1,523	1,526
Securitisation positions	1,358	1,358	3,204	—	—	—	—	—	—	—	—	—
Total STD	195,957	193,869	101,495	176,773	176,623	118,407	87,040	87,039	20,952	1,828	3,202	2,430
Total IRB and STD	698,997	672,441	264,791	441,304	425,292	200,132	243,300	235,951	61,668	36,646	37,919	22,374

For the notes to this table refer to the following page.

Credit risk

Total credit risk

CR 6: Credit risk EAD and RWAs by significant subsidiary by regulatory approach and CRR exposure class *continued*

Counterparty credit risk	2015								2014							
	RBS		RBS plc		NWB Plc		UBIL		RBS		RBS plc		NWB Plc		UBIL	
	EAD post CRM £m	RWAs £m														
<i>IRB approach</i>																
Central governments and banks	7,028	350	7,023	348	—	—	3	1	8,135	373	8,128	368	—	—	2	—
Institutions	10,941	8,488	10,824	8,290	2	1	19	12	15,444	10,286	15,033	9,826	4	1	30	19
Corporates																
- property	1,882	1,301	1,589	1,083	243	183	11	6	3,309	2,417	2,865	2,003	358	288	41	55
- others	25,582	10,846	24,391	9,970	417	208	87	63	35,473	12,634	33,949	11,604	563	334	170	106
Equities (1)	1,652	601	1,283	562	61	8	—	—	4	9	—	—	—	—	—	—
Securitisation positions	—	—	—	—	—	—	—	—	2,240	807	1,806	759	39	5	—	—
Total IRB	47,085	21,586	45,110	20,253	723	400	120	82	64,605	26,526	61,781	24,560	964	628	243	180
<i>STD approach</i>																
Governments and multilateral institutions (2)	2,602	33	2,567	10	—	—	—	—	4,832	48	4,400	14	—	—	—	—
Exposures to international organisations									1	—	1	—	—	—	—	—
Institutions	4,687	558	4,284	990	—	—	530	263	292	138	2,814	1,065	—	—	504	245
Corporates	1,219	1,142	613	516	2	2	—	—	8,433	3,621	6,380	2,043	4	5	1	1
Retail	45	42	—	—	—	—	—	—	49	41	—	—	—	—	—	—
Past due items	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
Other items	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—
Total STD	8,553	1,775	7,464	1,516	2	2	530	263	13,612	3,853	13,595	3,122	4	5	505	246
Total IRB and STD	55,638	23,361	52,574	21,769	725	402	650	345	78,217	30,379	75,376	27,682	968	633	748	426

Notes:

(1) The equities exposures represent equity warrants held by RBS, granting it the option to purchase shares in corporate entities. For accounting purposes, the warrants are treated as over-the-counter derivatives and thus reported under counterparty credit risk in regulatory disclosures.

(2) Governments and multilateral institutions comprises: central governments or central banks, regional governments or local authorities, administrative bodies and non-commercial undertakings, and multilateral development banks.

Credit risk

Total credit risk

CR 7: Credit risk EAD, RWAs and minimum capital requirements by regulatory approach and CRR exposure class

Exposure class	Non-counterparty credit risk					Counterparty credit risk		
	EAD pre CRM £m	Average EAD pre CRM (1) £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m
	2015							
<i>IRB approach</i>								
Central governments and banks	66,599	63,335	66,599	3,977	318	7,028	350	28
Institutions	15,688	18,474	12,966	2,959	237	10,941	8,488	679
Corporates	174,237	201,921	156,402	79,543	6,364	27,464	12,147	972
Retail								
SMEs	9,810	10,314	9,810	4,309	345	—	—	—
secured by real estate collateral	140,340	133,824	140,340	20,960	1,677	—	—	—
qualifying revolving retail	23,792	24,043	23,792	6,383	510	—	—	—
other retail	5,464	5,782	5,464	4,564	365	—	—	—
	179,406	173,963	179,406	36,216	2,897	—	—	—
Equities								
exchange-traded	51	89	51	148	12	—	—	—
private equity	558	440	558	1,334	106	—	—	—
other	281	279	281	1,021	82	—	—	—
	890	808	890	2,503	200	—	—	—
Securitisation positions	8,591	11,940	8,591	2,814	225	1,652	601	48
Non-credit obligation assets	1,117	1,218	1,117	412	33	—	—	—
	446,528	471,659	425,971	128,424	10,274	47,085	21,586	1,727
<i>STD approach</i>								
Central governments and banks	62,139	54,493	62,137	27	2	2,525	—	—
Regional governments or local authorities	210	143	210	179	14	77	33	3
Administrative bodies and non-commercial undertakings	—	—	—	—	—	—	—	—
Multilateral development banks	17	108	17	—	—	—	—	—
Institutions	890	1,602	890	239	19	4,687	558	45
Corporates	19,887	16,701	18,788	17,765	1,421	1,219	1,142	91
Retail	3,732	3,717	3,607	2,527	202	45	42	3
Secured by mortgages on								
- residential property	10,592	9,926	10,592	4,398	352	—	—	—
- commercial real estate	3,183	2,654	3,183	3,248	260	—	—	—
Past due items	632	715	632	745	60	—	—	—
Exposures with particularly high risk	191	46	191	286	23	—	—	—
Covered bonds	144	146	144	15	1	—	—	—
Collective investment undertakings	12	23	12	12	1	—	—	—
Equity claims	605	636	605	1,281	102	—	—	—
Other items	8,813	8,628	8,813	7,271	582	—	—	—
	111,047	99,538	109,821	37,993	3,039	8,553	1,775	142
Total	557,575	571,197	535,792	166,417	13,313	55,638	23,361	1,869

Note:

(1) Average EAD pre CRM for the year is calculated as a simple average of the month-end EAD pre CRM balances.

Credit risk

Total credit risk

CR 7 : Credit risk EAD, RWAs and minimum capital requirements by regulatory approach and CRR exposure class *continued*

Exposure class	Non-counterparty credit risk					Counterparty credit risk		
	EAD pre CRM £m	Average EAD pre CRM (1) £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m
	2014							
<i>IRB approach</i>								
Central governments and banks	54,932	54,461	54,898	3,409	273	8,135	373	30
Institutions	21,085	27,828	17,953	4,819	386	15,444	10,286	823
Corporates	232,519	255,007	211,239	102,240	8,180	38,782	15,051	1,204
Retail								
SMEs	11,651	11,935	11,651	5,233	419	—	—	—
secured by real estate collateral	130,152	130,013	130,152	23,849	1,908	—	—	—
qualifying revolving retail	24,885	25,372	24,885	7,699	616	—	—	—
other retail	5,976	6,171	5,976	5,138	411	—	—	—
	172,664	173,491	172,664	41,919	3,354	—	—	—
Equities								
exchange-traded	198	293	198	567	45	—	—	—
private equity	561	354	561	1,347	108	4	9	1
other	240	409	240	865	69	—	—	—
	999	1,056	999	2,779	222	4	9	1
Securitisation positions	15,197	17,404	15,176	4,817	385	2,240	807	65
Non-credit obligation assets	5,644	5,822	5,643	3,313	265	—	—	—
	503,040	535,069	478,572	163,296	13,065	64,605	26,526	2,123
<i>STD approach</i>								
Central governments and banks	63,107	56,222	63,107	3	—	4,724	11	1
Regional governments or local authorities	318	461	316	70	6	108	37	3
Administrative bodies and non-commercial undertakings	55	56	55	11	1	—	—	—
Multilateral development banks	118	93	118	—	—	—	—	—
Exposures to international organisations	7	6	7	—	—	1	—	—
Institutions	2,032	2,671	2,032	516	41	292	138	11
Corporates	58,566	60,809	56,828	49,999	4,000	8,433	3,621	289
Retail	23,330	18,139	23,048	16,717	1,337	49	41	3
Secured by mortgages on - residential property	25,887	29,299	25,887	10,367	830	—	—	—
- commercial real estate	8,912	11,166	8,910	8,941	715	—	—	—
Past due items	1,815	1,643	1,751	2,098	168	2	2	—
Exposures with particularly high risk	1	1	1	1	—	—	—	—
Covered bonds	132	140	132	13	1	—	—	—
Collective investment undertakings	29	30	29	29	2	—	—	—
Equity claims	476	641	476	519	42	—	—	—
Other items	9,814	9,089	9,814	9,007	720	3	3	—
Securitisation positions	1,358	1,362	1,358	3,204	256	—	—	—
	195,957	191,828	193,869	101,495	8,119	13,612	3,853	307
Total	698,997	726,897	672,441	264,791	21,184	78,217	30,379	2,430

Note:

(1) Average EAD pre CRM for the year is calculated as a simple average of the month-end EAD pre CRM balances.

The non-counterparty credit risk RWAs and minimum capital requirements relating to equities disclosed in the above are comprised as follows:

	RWAs		Minimum capital requirements	
	2015 £m	2014 £m	2015 £m	2014 £m
IRB (PD/LGD) approach	889	1,060	71	85
Simple risk-weight approach	1,614	1,719	129	137
	2,503	2,779	200	222

For analysis of the inputs to these capital calculations, refer to Table CR 21 (PD/LGD approach) and Table CR 22 (simple risk-weight approach).

Credit risk

Non-counterparty credit risk

CR 8: Non-counterparty credit risk EAD pre CRM RBS sector cluster and CRR by exposure class roadmap

This table maps exposures by sector cluster (in line with RBS's internal risk management) to exposures by exposure class (as defined by CRR rules for calculating regulatory capital).

2015 (CRR basis)	EAD pre CRM																	
	Sovereign			Financial institutions (FI)				Corporates						Personal				
	Central banks £m	Central governments £m	Other sovereign £m	Banks £m	Non-bank FI £m	SSPEs £m	Property £m	Natural resources £m	Transport £m	Manufacturing £m	Retail and leisure £m	Services £m	TMT £m	Mortgages £m	Other personal £m	Total £m		
<i>IRB approach</i>																		
Central governments and banks	41,892	21,791	199	2,653	—	—	—	37	—	—	—	27	—	—	—	—	66,599	
Institutions	—	—	4,533	11,113	1	—	—	—	37	—	—	4	—	—	—	—	15,688	
Corporates	—	—	210	1,238	17,722	474	47,654	14,270	21,209	23,912	19,462	19,657	8,205	—	224	174,237		
Retail	—	—	14	1	107	—	2,345	63	604	1,819	2,014	2,444	218	140,342	29,435	179,406		
Equities	—	—	—	5	801	—	6	—	3	29	1	44	1	—	—	—	890	
Securitisation positions	—	—	—	—	—	8,591	—	—	—	—	—	—	—	—	—	—	8,591	
Non-credit obligation assets	—	16	68	81	62	—	63	32	550	36	139	16	54	—	—	—	1,117	
Total IRB	41,892	21,807	5,024	15,091	18,693	9,065	50,068	14,402	22,403	25,796	21,616	22,192	8,478	140,342	29,659	446,528		
<i>STD approach</i>																		
Central governments and banks	45,929	14,283	108	—	1,815	—	—	—	—	—	—	4	—	—	—	—	62,139	
Regional governments or local authorities	—	—	204	—	6	—	—	—	—	—	—	—	—	—	—	—	210	
Multilateral development banks	—	—	—	17	—	—	—	—	—	—	—	—	—	—	—	—	17	
Institutions	—	—	—	654	204	—	—	—	—	—	—	—	—	—	—	—	858	
Corporates	—	—	29	3	9,941	856	1,296	263	2,059	438	1,507	734	387	37	1,850	19,401		
Retail	—	—	10	1	688	1	265	34	31	146	41	46	16	380	2,073	3,732		
Secured by mortgages on	—	—	—	—	—	662	16	533	1	2	17	30	52	22	8,161	1,096	10,592	
- residential property	—	—	—	—	—	4	164	4	1,709	2	8	49	311	150	16	370	397	3,183
Past due items	—	—	—	26	30	50	107	17	4	11	21	17	3	207	139	632		
Exposures with particularly high risk	—	—	—	—	—	—	145	—	—	—	23	10	—	6	7	191		
Covered bonds	—	—	—	48	96	—	—	—	—	—	—	—	—	—	—	—	144	
Collective investment undertakings	—	—	—	—	10	—	—	2	—	—	—	—	—	—	—	—	12	
Equity claims	—	—	—	—	146	—	1	—	—	—	—	2	5	—	—	—	155	
Other items	—	13	13	—	190	—	57	5	102	8	20	19	—	—	—	—	426	
Total STD	45,929	14,296	364	753	13,952	927	4,113	324	2,206	669	1,953	1,034	449	9,161	5,562	101,692		
Total	87,821	36,103	5,388	15,844	32,645	9,992	54,181	14,726	24,609	26,465	23,569	23,226	8,927	149,503	35,221	548,220		
Not allocated to sector cluster	—	—	—	—	—	—	—	—	—	—	—	—	—	9,355	—	—	557,575	

Credit risk

Non-counterparty credit risk

CR 8: Non-counterparty credit risk EAD pre CRM RBS sector cluster and CRR by exposure class roadmap *continued*

2014 (Basel 2.5 basis)	EAD pre CRM														Personal	
	Sovereign			Financial institutions				Corporates								
	Central banks £m	Central governments £m	Other sovereign £m	Banks £m	Non-bank FI £m	SSPEs £m	Property £m	Natural resources £m	Transport £m	Manufacturing £m	Retail and leisure £m	Services £m	TMT £m	Mortgages £m	Other personal £m	Total £m
<i>IRB approach</i>																
Central governments and banks	38,109	15,618	182	968	1	—	—	31	—	—	—	23	—	—	—	54,932
Institutions	—	—	4,294	16,742	3	2	—	—	41	—	—	3	—	—	—	21,085
Corporates	—	—	776	660	21,241	689	60,652	31,233	26,947	30,005	24,154	20,496	14,978	1	687	232,519
Retail	—	—	16	2	127	—	2,782	69	668	1,906	2,448	3,146	270	130,157	31,073	172,664
Equities	—	—	2	—	613	—	85	1	10	53	50	147	38	—	—	999
Securitisation positions	—	—	—	—	784	14,362	—	—	51	—	—	—	—	—	—	15,197
Non-credit obligation assets	—	18	70	89	65	—	141	49	478	38	156	24	51	—	—	1,179
Total IRB	38,109	15,636	5,340	18,461	22,834	15,053	63,660	31,383	28,195	32,002	26,808	23,839	15,337	130,158	31,760	498,575
<i>STD approach</i>																
Central governments and banks	45,758	9,863	5,778	—	—	—	—	—	—	—	—	55	—	—	—	61,454
Regional governments or local authorities	—	—	275	—	16	—	—	—	—	—	13	—	—	—	—	304
Administrative bodies and non-commercial undertakings	—	—	—	—	55	—	—	—	—	—	—	—	—	—	—	55
Multilateral development banks	—	—	—	118	—	—	—	—	—	—	—	—	—	—	—	118
Exposures to international organisations	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Institutions	—	—	20	1,578	84	—	3	—	—	32	4	—	—	—	—	1,721
Corporates	—	57	286	6	13,586	863	5,337	2,858	4,886	6,993	5,991	6,511	2,611	59	1,558	51,602
Retail	—	—	12	3	128	—	446	76	139	241	687	379	60	7,276	13,410	22,857
Secured by mortgages on	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
- residential property	—	—	7	—	490	—	1,670	3	23	25	29	414	8	21,633	1,144	25,446
- commercial real estate	—	—	3	3	308	65	3,533	156	240	688	1,390	1,666	121	264	479	8,916
Past due items	—	—	—	22	169	167	299	18	77	120	65	55	44	588	191	1,815
Exposures with particularly high risk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Covered bonds	—	—	—	43	89	—	—	—	—	—	—	—	—	—	—	132
Collective investment undertakings	—	—	—	—	13	—	—	15	1	—	—	—	—	—	—	29
Equity claims	—	—	—	6	240	—	188	4	2	4	1	15	16	—	—	476
Other items	—	13	54	—	121	—	79	377	345	264	35	30	38	—	—	1,356
Securitisation positions	—	—	—	91	150	1,117	—	—	—	—	—	—	—	—	—	1,358
Total STD	45,759	9,939	6,435	1,870	15,449	2,212	11,555	3,507	5,713	8,367	8,215	9,125	2,898	29,820	16,783	177,647
Total	83,868	25,575	11,775	20,331	38,283	17,265	75,215	34,890	33,908	40,369	35,023	32,964	18,235	159,978	48,543	676,222
Not allocated to sector cluster	—	—	—	—	—	—	—	—	—	—	—	—	—	22,775	—	—
														698,997		

Credit risk

Non-counterparty credit risk

CR 9: Non-counterparty credit risk by exposure class and geographical region

Exposure class	2015						2014					
	EAD pre CRM						EAD pre CRM					
	UK £m	RoI £m	Other Europe (excl. UK & RoI) £m	US £m	RoW £m	Total £m	UK £m	RoI £m	Other Europe (excl. UK & RoI) £m	US £m	RoW £m	Total £m
<i>IRB approach</i>												
Central governments and banks	54	1,646	29,715	25,775	9,409	66,599	1,650	640	15,044	30,201	7,397	54,932
Institutions	4,673	118	7,386	1,524	1,987	15,688	5,623	256	8,106	1,704	5,396	21,085
Corporates	119,566	6,479	25,121	11,685	11,386	174,237	124,488	14,088	34,707	28,706	30,530	232,519
Retail	163,781	15,232	165	54	174	179,406	155,430	16,792	196	56	190	172,664
Equities	497	10	337	32	14	890	813	5	94	34	53	999
Securitisation positions	4,183	122	1,198	2,580	508	8,591	5,762	243	2,227	5,308	1,657	15,197
Non-credit obligation assets	597	—	485	—	35	1,117	533	—	646	—	—	1,179
	293,351	23,607	64,407	41,650	23,513	446,528	294,299	32,024	61,020	66,009	45,223	498,575
Exposure-weighted average LGD	24%	39%	40%	45%	45%	30%	26%	48%	42%	42%	47%	33%
Exposure-weighted average PD	4%	23%	2%	1%	4%	4%	6%	42%	4%	1%	4%	7%
<i>STD approach</i>												
Central governments and banks	59,673	14	511	94	1,847	62,139	52,155	14	929	8,312	44	61,454
Regional governments or local authorities	176	1	20	—	13	210	39	1	170	40	54	304
Administrative bodies and non-commercial undertakings	—	—	—	—	—	—	—	—	—	55	—	55
Multilateral development banks	—	—	—	—	17	17	—	—	—	—	118	118
Exposures to internal organisations	—	—	—	—	—	—	—	—	—	—	7	7
Institutions	13	4	333	18	490	858	65	6	859	557	234	1,721
Corporates	8,598	517	1,272	241	8,773	19,401	9,124	572	1,690	35,337	4,879	51,602
Retail	2,726	4	82	9	911	3,732	3,340	12	91	19,034	380	22,857
Secured by mortgages on												
- residential property	8,470	26	218	103	1,775	10,592	8,550	47	353	15,193	1,303	25,446
- commercial real estate	2,691	12	185	61	234	3,183	1,940	62	90	6,515	309	8,916
Past due items	483	34	63	13	39	632	580	103	119	945	68	1,815
Exposures with particularly high risk	184	—	3	—	4	191	—	—	—	1	—	1
Covered bonds	—	—	140	—	4	144	—	—	128	—	4	132
Collective investment undertakings	—	—	—	12	—	12	1	—	—	28	—	29
Equity claims	25	—	53	25	52	155	55	—	70	334	17	476
Other items	197	—	39	—	190	426	191	—	45	1,120	—	1,356
Securitisation positions	—	—	—	—	—	—	—	—	—	1,358	—	1,358
	83,236	612	2,919	576	14,349	101,692	76,040	817	4,544	88,829	7,417	177,647
	376,587	24,219	67,326	42,226	37,862	548,220	370,339	32,841	65,564	154,838	52,640	676,222
Not allocated to region						9,355					22,775	
						557,575					698,997	
Of which: by significant subsidiary (excludes intra-Group exposures)												
RBS plc	168,957	1,147	55,223	39,532	17,753	282,612	170,373	1,537	49,919	62,947	37,486	322,262
NWB Plc	162,912	88	1,165	800	931	165,896	152,316	133	1,373	1,084	1,693	156,599
UBIL	908	22,279	2,060	253	377	25,877	1,781	30,208	2,385	111	23	34,508

Credit risk

Non-counterparty credit risk

CR 10: Non-counterparty credit risk by exposure class and residual maturity

Exposure class	2015				2014			
	EAD pre CRM				EAD pre CRM			
	Within 1 year £m	After 1 year but within 5 years £m	After 5 years £m	Total £m	Within 1 year £m	After 1 year but within 5 years £m	After 5 years £m	Total £m
<i>IRB approach</i>								
Central governments and banks	50,859	8,054	7,686	66,599	43,380	6,745	4,807	54,932
Institutions	8,094	2,359	5,235	15,688	12,784	2,644	5,657	21,085
Corporates	62,583	77,861	33,793	174,237	97,828	98,778	35,913	232,519
Retail	30,231	11,977	137,198	179,406	32,960	12,141	127,563	172,664
Equities	—	—	890	890	—	3	996	999
Securitisation positions	3,930	1,790	2,871	8,591	4,828	4,447	5,922	15,197
Non-credit obligation assets	206	650	261	1,117	97	321	761	1,179
	155,903	102,691	187,934	446,528	191,877	125,079	181,619	498,575
<i>STD approach</i>								
Central governments and banks	23,806	32,305	6,028	62,139	38,612	12,111	10,731	61,454
Regional governments or local authorities	132	26	52	210	24	164	116	304
Administrative bodies and								
non-commercial undertakings	—	—	—	—	27	28	—	55
Multilateral development banks	—	17	—	17	3	115	—	118
Exposures to international organisations	—	—	—	—	—	7	—	7
Institutions	640	218	—	858	1,092	375	254	1,721
Corporates	4,854	10,490	4,057	19,401	6,384	28,058	17,160	51,602
Retail	1,609	1,388	735	3,732	3,615	12,253	6,989	22,857
Secured by mortgages on								
- residential property	2,406	3,776	4,410	10,592	3,731	3,435	18,280	25,446
- commercial real estate	689	2,420	74	3,183	944	6,129	1,843	8,916
Past due items	323	247	62	632	641	708	466	1,815
Exposures with particularly high risk	107	83	1	191	—	—	1	1
Covered bonds	19	125	—	144	—	132	—	132
Collective investment undertakings	—	—	12	12	—	—	29	29
Equity claims	23	36	96	155	22	—	454	476
Other items	38	291	97	426	111	481	764	1,356
Securitisation positions	—	—	—	—	—	33	1,325	1,358
	34,646	51,422	15,624	101,692	55,206	64,029	58,412	177,647
	190,549	154,113	203,558	548,220	247,083	189,108	240,031	676,222
Not allocated to maturity					9,355			22,775
					557,575			698,997
Of which: by significant subsidiary (excludes intra-Group exposures)								
RBS plc	113,849	98,310	70,453	282,612	148,321	101,935	72,006	322,262
NWB Plc	42,465	22,129	101,302	165,896	46,883	21,302	88,414	156,599
UBIL	6,190	4,000	15,687	25,877	12,519	4,102	17,887	34,508

Credit risk

Key points for Tables CR 2 to CR 10

Non-counterparty credit risk

- Non-counterparty credit risk EAD post CRM fell 20% to £536 billion and RWAs fell 37% to £166 billion. The sale of Citizens and disposals and run-off in Capital Resolution accounted for EAD reductions of £90 billion and £98 billion, respectively. Within the Capital Resolution reduction, North American portfolio sales, ongoing GTS portfolio exit activity and disposals relating to RCR Ireland accounted for EAD reductions of £15 billion, £13.5 billion and £8 billion respectively.
- The overall downward trend was partly offset by an increase in exposure in the central governments and central banks sector clusters (£10 billion), reflecting a rise in liquid assets, and an increase in mortgage exposure in UK PBB (£10 billion) in line with a plan to raise market share in this sector.
- Non-counterparty credit risk RWAs declined more steeply than EAD, reflecting the disposal of higher risk-weighted assets, principally in the Americas and Asia.

Counterparty credit risk

- Counterparty credit risk EAD post CRM fell 29% to £56 billion and RWAs fell 23% to £23 billion. In line with strategy, the downward trend was driven principally by reductions in exposure to OTC derivative and securities financing transactions, which each contributed £11 billion to the EAD reduction.
- The exposure reduction was also driven by active collateral management and by continued participation in compression trades aimed at reducing the notional exposure to OTC derivatives.

Credit risk

Credit risk mitigation

RBS employs a number of techniques to mitigate credit risk. For information on its approach to CRM, including collateral and other credit enhancements, refer to pages 184, 190 to 191, 195 to 196, 203 and 214 of the 2015 ARA. For additional information on the mitigation of counterparty credit risk, refer to pages 69 to 70 of this report.

Under the STD approach, CRM is incorporated in EAD or risk-weight as per CRR rules.

The following table details how different risk mitigants are incorporated into IRB risk parameters (LGD, PD and EAD).

CR 11: Incorporation of credit risk mitigants within IRB risk parameters

	LGD	PD	EAD
Real estate (commercial and residential)	✓		
Other physical collateral	✓		
Third party guarantees	✓		
Credit derivatives	✓		
Parental guarantees (connected parties)			✓
Financial collateral			
- trading book			✓
- non-trading book	✓		
Netting (on and off-balance sheet)			✓
Receivables	✓		
Life policies	✓		
Credit insurance	✓		

CR 12: Non-counterparty credit risk exposures covered by guarantees and credit derivatives

The following table details total exposures covered by guarantees and credit derivatives.

Exposure class	2015		2014	
	Exposures covered by guarantees or credit derivatives (1,2) £m		Exposures covered by guarantees or credit derivatives (1,2) £m	
<i>IRB approach</i>				
Central governments and banks	49		77	
Institutions	53		86	
Corporates	2,985		9,202	
Securitisation positions	3		5	
Non-credit obligation assets	26		—	
	3,116		9,370	
<i>STD approach</i>				
Central governments and banks	—		5,774	
Corporates	477		31	
Retail	—		181	
Secured by mortgages on residential property	—		391	
Secured by mortgages on commercial real estate	20		—	
Past due items	1		29	
Other items	75		—	
	573		6,406	
	3,689		15,776	

Notes:

- (1) Exposures covered by guarantees or credit derivatives are shown as the lower of the value of the guarantee or credit derivative or the value of the associated EAD post CRM of the facility. Guarantees disclosed do not include parental guarantees where the PD substitution approach is applied.
- (2) Excludes tranches of credit protection purchased in relation to synthetic securitisation activity.
- (3) In addition to the exposures shown above, RBS's contingent liability exposures at 31 December 2015 include €4.0 billion (2014 - €4.0 billion) relating to RBS N.V.'s obligations over liabilities held within the Dutch State acquired businesses in the new ABN AMRO Bank N.V. On the division of an entity by demerger, Dutch law establishes a cross liability between surviving entities in respect of the creditors at the time of the demerger. The likelihood of any cross liability crystallising is considered remote. These contingent liabilities are covered by an indemnity from the Dutch State.

Key point

- Exposures covered by guarantees and credit derivatives fell 77% to £3.7 billion, largely reflecting disposals and repayments in CIB and Capital Resolution under the IRB approach (driving a £6 billion decline in EAD) and the sale of Citizens under the STD approach (also driving an EAD decline of £6 billion).

Credit risk

Credit risk mitigation

CR 13: Non-counterparty credit risk exposures covered by eligible financial collateral (STD approach)

STD exposure class (1)	2015 £m	2014 £m
Corporates	1,235	1,778
Retail	148	282
Secured by mortgages on residential property	2	—
Secured by mortgages on commercial real estate	2	4
Past due items	—	2
	1,387	2,066

Note:

(1) Exposures covered by eligible financial collateral as per CRR rules.

Key point

- Exposures covered by eligible financial collateral fell 33% to £1.4 billion due to reductions in CIB and Private Banking and the sale of Citizens.

Credit risk

Asset quality analysis of non-counterparty credit risk exposures

Under the IRB approach, RBS utilises a master grading scale comprising 27 grades to express the default risk of its exposures. These grades are mapped to ten AQ bands for both internal and external reporting purposes. The relationship between the AQ bands and PDs is detailed in the following table.

Tables CR 15 to CR 21 analyse the asset quality of non-counterparty credit risk exposures using the IRB approach. For these exposures, the asset quality is disclosed according to RBS's internal AQ bands, as defined in Table CR 14. Table CR 24 shows the asset quality of non-counterparty credit risk exposures under the STD approach. For these exposures, asset quality is disclosed according to CQS, as defined in Table CR 23.

Table CR 14 additionally maps, for illustrative purposes only, the relationship between RBS's master grading scale and AQ bands, on the one hand, and external ratings published by S&P, on the other hand. This relationship is established by observing S&P's default study statistics, notably the one year default rates for each S&P rating grade. A degree of judgement is required to relate the PD ranges associated with the master grading scale to these default rates given that, for example, the S&P published default rates do not increase uniformly by grade and the historical default rate is nil for the highest rating categories.

The mapping to the S&P ratings is used by RBS as one of several benchmarks for its wholesale portfolios, depending on customer type and the purpose of the benchmark. The mapping shown below and in the following tables is based on all issuer types rated by S&P. It should therefore be considered illustrative and does not, for instance, indicate that exposures reported against S&P ratings either have been or would be assigned those ratings if assessed by S&P. In addition, the relationship is not relevant for retail portfolios, smaller corporate exposures or specialist corporate segments given that S&P does not typically assign ratings to such exposures.

CR 14: IRB exposures: AQ band mapping to PD range and S&P ratings

Master grading scale	AQ band	PD range		S&P ratings
		Low	High	
1		0%	0.006%	AAA
2		0.006%	0.012%	AA+
3	AQ1	0.012%	0.017%	AA+
4		0.017%	0.024%	AA
5		0.024%	0.034%	AA
6	AQ2	0.034%	0.048%	AA-
7	AQ3	0.048%	0.067%	A+
8		0.067%	0.095%	A-
9		0.095%	0.135%	BBB+
10	AQ4	0.135%	0.190%	BBB
11		0.190%	0.269%	BBB
12		0.269%	0.381%	BBB-
13	AQ5	0.381%	0.538%	BB+
14		0.538%	0.761%	BB
15		0.761%	1.076%	BB
16	AQ6	1.076%	1.522%	BB-
17		1.522%	2.153%	B+
18		2.153%	3.044%	B+
19	AQ7	3.044%	4.305%	B
20		4.305%	6.089%	B
21		6.089%	8.611%	B-
22	AQ8	8.611%	12.177%	CCC+
23		12.177%	17.222%	CCC+
24		17.222%	24.355%	CCC
25	AQ9	24.355%	34.443%	CCC-
26		34.443%	100%	CC
27	AQ10	100%	100%	D

Credit risk

Asset quality of non-counterparty credit risk exposures

Tables CR 15 to CR 21 analyse the asset quality of RBS's non-counterparty credit risk exposures using the IRB approach. For these exposures, the asset quality is disclosed according to RBS's internal AQ bands, as defined in Table CR 14. These tables exclude products where no PDs exist, such as securitisation positions and non-credit obligation assets.

CR 15: Total IRB non-counterparty credit risk exposures post CRM by AQ band

IRB exposure class	AQ1 £m	AQ2 £m	AQ3 £m	AQ4 £m	AQ5 £m	AQ6 £m	AQ7 £m	AQ8 £m	AQ9 £m	AQ10/default £m	Total £m
2015											
Central governments and banks	59,620	782	4,911	1,208	54	11	2	4	7	—	66,599
Institutions	3,306	2,166	2,475	4,846	120	26	4	22	1	—	12,966
Corporates (1)	15,376	8,097	16,928	31,380	25,131	16,449	12,127	2,052	582	4,243	132,365
Retail											
SMEs	—	17	43	1,158	4,150	2,098	895	381	93	975	9,810
secured by real estate collateral	—	—	2,321	97,348	22,718	7,528	1,410	1,716	2,447	4,852	140,340
qualifying revolving retail	8,795	94	—	3,859	4,397	2,380	2,560	892	199	616	23,792
other retail	—	—	—	140	2,018	1,101	927	255	89	934	5,464
	8,795	111	2,364	102,505	33,283	13,107	5,792	3,244	2,828	7,377	179,406
Equities (2)	—	—	—	—	—	261	48	—	—	—	309
Total	87,097	11,156	26,678	139,939	58,588	29,854	17,973	5,322	3,418	11,620	391,645
2014											
Central governments and banks	48,376	244	3,613	1,882	80	11	677	15	—	—	54,898
Institutions	3,029	3,057	7,332	3,957	370	35	102	29	—	42	17,953
Corporates (1)	30,272	13,885	21,785	38,159	28,821	19,569	12,199	2,845	897	13,805	182,237
Retail											
SMEs	—	49	109	1,369	3,995	2,636	1,232	527	159	1,575	11,651
secured by real estate collateral	—	—	2,522	80,564	27,935	6,660	1,383	2,273	3,043	5,772	130,152
qualifying revolving retail	8,546	110	—	3,775	4,534	2,538	3,274	1,037	311	760	24,885
other retail	—	—	—	126	1,702	1,413	1,010	364	104	1,257	5,976
	8,546	159	2,631	85,834	38,166	13,247	6,899	4,201	3,617	9,364	172,664
Equities (2)	—	—	1	—	—	171	168	2	6	19	367
Total	90,223	17,345	35,362	129,832	67,437	33,033	20,045	7,092	4,520	23,230	428,119

Notes:

(1) Excludes exposures treated under the supervisory slotting approach. For more information, refer to Table CR 19.

(2) Excludes exposures calculated using the simple risk-weight approach. For more information, refer to Tables CR 8 and CR 22.

Credit risk

Asset quality of non-counterparty credit risk exposures

Tables CR 16 to CR 21 analyse each of the exposure classes in turn, detailing the key parameters of the IRB RWA calculation for each of them.

CR 16: Sovereign IRB non-counterparty credit risk exposures post CRM by AQ band

2015	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
S&P ratings	AAA to AA	AA-	A+ to A	A- to BBB-	BB+ to BB	BB- to B+	B+ to B	B- to CCC+	CCC+ to C	D	
EAD post CRM (£m)	59,620	782	4,911	1,208	54	11	2	4	7	—	66,599
Exposure-weighted average LGD	45.9%	45.0%	45.6%	49.9%	49.2%	17.1%	12.0%	12.7%	25.2%	—	45.9%
Exposure-weighted average PD	0.01%	0.04%	0.07%	0.23%	0.45%	1.81%	2.56%	7.96%	28.96%	—	0.02%
RWAs (£m)	2,547	119	751	496	44	6	1	3	10	—	3,977
RWA density	4.3%	15.3%	15.3%	41.1%	81.0%	50.4%	28.9%	68.1%	141.3%	—	6.0%
Undrawn commitments (£m)	25,367	131	1,275	293	50	—	—	—	10	—	27,126
Undrawn weighted average CCF	20.3%	67.1%	21.2%	21.0%	0.1%	81.7%	39.6%	—	20.3%	—	20.6%

2014	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
S&P ratings	AAA to AA	AA-	A+ to A	A- to BBB-	BB+ to BB	BB- to B+	B+ to B	B- to CCC+	CCC+ to C	D	
EAD post CRM (£m)	48,376	244	3,613	1,882	80	11	677	15	—	—	54,898
Exposure-weighted average LGD	45.1%	45.0%	45.0%	50.8%	47.3%	17.6%	49.4%	19.7%	—	—	45.3%
Exposure-weighted average PD	0.01%	0.04%	0.06%	0.23%	0.48%	1.34%	2.52%	9.28%	—	—	0.05%
RWAs (£m)	1,762	61	539	868	46	5	116	12	—	—	3,409
RWA density	3.6%	24.8%	14.9%	46.1%	56.9%	46.8%	17.2%	82.5%	—	—	6.2%
Undrawn commitments (£m)	17,637	—	4,281	457	1	—	—	10	—	1	22,387
Undrawn weighted average CCF	19.8%	—	20.4%	22.8%	66.0%	—	—	20.3%	—	—	19.9%

Key points

- Overall EAD to sovereign (central governments and central banks) exposure class increased 21% to £67 billion. The largest movements occurred in the AQ1 and AQ3 bands, driven by increased placements with central banks as part of ongoing liquidity management by Treasury.
- RWA density remained flat at 6%.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 17: Institutions IRB non-counterparty credit risk exposures post CRM by AQ band

2015	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
S&P ratings	AAA to AA	AA-	A+ to A	A- to BBB-	BB+ to BB	BB- to B+	B+ to B	B- to CCC+	CCC+ to C	D	
EAD post CRM (£m)	3,306	2,166	2,475	4,846	120	26	4	22	1	—	12,966
Exposure-weighted average LGD	36.8%	46.8%	52.7%	26.3%	56.4%	33.8%	62.7%	7.9%	62.1%	—	37.7%
Exposure-weighted average PD	0.03%	0.04%	0.06%	0.13%	0.58%	1.58%	2.91%	7.27%	24.43%	—	0.10%
RWAs (£m)	512	356	578	1,362	106	27	8	8	2	—	2,959
RWA density	15.5%	16.5%	23.4%	28.1%	88.3%	101.9%	208.9%	38.0%	376.2%	—	22.8%
Undrawn commitments (£m)	1,352	2,569	3,206	2,522	175	8	6	3	2	—	9,843
Undrawn weighted average CCF	43.3%	21.6%	33.8%	25.2%	25.3%	29.1%	27.6%	20.3%	20.3%	—	29.6%
<hr/>											
2014											
EAD post CRM (£m)	3,029	3,057	7,332	3,957	370	35	102	29	—	42	17,953
Exposure-weighted average LGD	32.7%	45.5%	37.9%	67.3%	70.3%	30.0%	57.1%	9.8%	—	90.1%	45.6%
Exposure-weighted average PD	0.03%	0.04%	0.06%	0.18%	0.51%	1.49%	2.57%	10.22%	20.51%	100.00%	0.35%
RWAs (£m)	382	495	1,357	2,029	365	27	148	14	2	—	4,819
RWA density	12.6%	16.2%	18.5%	51.3%	98.7%	76.0%	144.3%	49.3%	—	—	26.8%
Undrawn commitments (£m)	1,442	2,879	4,235	2,096	119	25	7	9	—	—	10,812
Undrawn weighted average CCF	37.3%	21.9%	22.9%	30.4%	35.6%	55.6%	29.2%	21.2%	—	—	26.2%

Key points

- Overall EAD to institutions fell 28% to £13 billion and RWAs fell 39% to £3 billion.
- The most material decreases were in the AQ2 and AQ3 bands, reflecting the ongoing GTS portfolio exit activity in Capital Resolution and movement of assets from AQ3 to AQ4 bands following downgrades.
- RWA density fell from 27% to 23%, driven by the reduction in the AQ4 band, which reflected the sale and repayments of more capital-intensive assets in the Rest of the World region.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 18: Corporates IRB non-counterparty credit risk exposures post CRM by AQ band

	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
S&P ratings	AAA to AA	AA-	A+ to A	A- to BBB-	BB+ to BB	BB- to B+	B+ to B	B- to CCC+	CCC+ to C	D	
EAD post CRM (£m)	15,376	8,097	16,928	31,380	25,131	16,449	12,127	2,052	582	4,243	132,365
Exposure-weighted average LGD	29.8%	38.8%	41.8%	43.1%	36.1%	32.2%	26.2%	26.0%	24.6%	67.5%	37.3%
Exposure-weighted average PD	0.03%	0.04%	0.07%	0.20%	0.68%	1.53%	3.26%	9.90%	26.08%	100.00%	4.15%
RWAs (£m)	1,873	1,363	4,046	14,468	16,238	12,575	9,333	2,031	709	209	62,845
RWA density	12.2%	16.8%	23.9%	46.1%	64.6%	76.4%	77.0%	99.0%	121.9%	4.9%	47.5%
Undrawn commitments (£m)	13,903	6,440	18,470	25,906	11,289	4,697	3,263	519	238	163	84,888
Undrawn weighted average CCF	43.7%	41.4%	49.0%	43.2%	48.7%	52.9%	52.2%	46.3%	37.9%	48.1%	46.0%
<hr/>											
2014											
EAD post CRM (£m)	30,272	13,885	21,785	38,159	28,821	19,569	12,199	2,845	897	13,805	182,237
Exposure-weighted average LGD	33.3%	45.0%	44.8%	45.8%	37.0%	32.3%	28.1%	32.5%	32.1%	71.3%	41.1%
Exposure-weighted average PD	0.03%	0.04%	0.07%	0.20%	0.68%	1.54%	3.27%	9.53%	25.10%	100.00%	8.40%
RWAs (£m)	4,411	3,214	6,075	17,924	19,332	15,514	11,443	3,468	1,560	17	82,958
RWA density	14.6%	23.1%	27.9%	47.0%	67.1%	79.3%	93.8%	121.9%	174.0%	0.1%	45.5%
Undrawn commitments (£m)	34,953	14,047	25,145	33,325	13,815	6,069	3,647	555	306	195	132,057
Undrawn weighted average CCF	40.6%	39.6%	40.0%	40.4%	45.7%	51.4%	47.6%	49.9%	38.8%	43.9%	41.6%

Key points

- Overall EAD to corporates under the IRB approach fell 27% to £132 billion and RWAs fell 24% to £63 billion.
- The most significant decreases were in the AQ1 to AQ6 bands, driven by Capital Resolution disposals and run-off including GTS portfolio exit activity, North American portfolio sales and loan repayments outside the UK.
- Exposure in the AQ10/default band fell 69% to £4.2 billion, mainly due to disposals and run-off in Capital Resolution.
- Overall RWA density rose from 46% to 48%, despite the exposure reductions in all AQ bands due to the large reduction in the AQ10/default band, which affected EAD but not RWAs.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 19: Corporates under the supervisory slotting approach post CRM by AQ category (1)

	Category 1 (strong)	Category 2 (good)	Category 3 (satisfactory)	Category 4 (weak)	Category 5 (defaulted)	Total
2015						
EAD post CRM (£m)	10,750	8,597	1,381	469	2,840	24,037
RWAs (£m)	6,964	6,972	1,588	1,174	—	16,698
RWA density	64.8%	81.1%	115.0%	250.0%	—	69.5%
Undrawn commitments (£m)	1,157	806	102	13	47	2,125
Undrawn weighted average CCF	70.2%	80.5%	42.6%	92.9%	76.5%	73.0%
2014						
EAD post CRM (£m)	10,889	8,745	2,240	1,000	6,128	29,002
RWAs (£m)	7,075	7,131	2,577	2,499	—	19,282
RWA density	65.0%	81.5%	115.0%	250.0%	—	66.0%
Undrawn commitments (£m)	1,232	699	104	32	89	2,156
Undrawn weighted average CCF	65.2%	77.6%	70.9%	96.3%	69.1%	70.1%

Note:
(1) Customers are split into five supervisory slotting categories; within each category, customers are also divided into two maturity bands: below and above 2.5 years. The risk-weight applied to each exposure is based on a combination of its supervisory slotting category and maturity band. There are no RWAs associated with exposures in category 5 as these are addressed via capital deductions.

Of which: IPRE

2015						
EAD post CRM (£m)	7,539	8,446	1,064	437	2,533	20,019
RWA (£m)	4,803	6,838	1,223	1,094	—	13,958
RWA density	63.7%	81.0%	115.0%	250.0%	—	69.7%
Undrawn commitments (£m)	662	804	13	12	32	1,523
Undrawn weighted average CCF	58.1%	80.4%	92.9%	92.9%	78.8%	70.9%
2014						
EAD post CRM (£m)	6,425	8,479	1,849	856	5,784	23,393
RWA (£m)	4,017	6,895	2,126	2,138	—	15,176
RWA density	62.5%	81.3%	115.0%	250.0%	—	65.0%
Undrawn commitments (£m)	602	684	81	25	49	1,441
Undrawn weighted average CCF	55.6%	78.2%	77.7%	96.3%	77.2%	69.0%

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 19: Corporates under the supervisory slotting approach post CRM by AQ category *continued*

Of which: Project finance

		Category 1 (strong)	Category 2 (good)	Category 3 (satisfactory)	Category 4 (weak)	Category 5 (defaulted)	Total
2015							
EAD post CRM (£m)		3,211	151	317	32	307	4,018
RWAs (£m)		2,161	134	365	80	—	2,740
RWA density		67.3%	88.7%	115.0%	250.0%	—	68.2%
Undrawn commitments (£m)		495	2	89	1	15	602
Undrawn weighted average CCF		86.4%	91.7%	35.5%	92.5%	71.5%	78.5%
2014							
EAD post CRM (£m)		4,464	266	391	144	344	5,609
RWAs (£m)		3,058	236	451	361	—	4,106
RWA density		68.5%	88.7%	115.0%	250.0%	—	73.2%
Undrawn commitments (£m)		630	15	23	7	40	715
Undrawn weighted average CCF		74.3%	52.5%	47.0%	96.0%	59.1%	72.3%

Key points

IPRE

- Overall EAD to income-producing real estate (IPRE) fell 14% to £20 billion and RWAs fell 8% to £14 billion.
- The largest reduction (£3 billion in EAD terms) was in the default category, reflecting disposals in Capital Resolution.
- The reductions in the Satisfactory (£0.8 billion) and Weak (£0.4 billion) categories were driven by repayments in Commercial Banking and were offset by an increase (£1.1 billion) in the Strong category, reflecting new business, primarily in Commercial Banking.
- RWA density rose from 65% to 70%, driven by the reduction in the default category, which affected EAD but not RWAs.

Project finance

- Overall EAD to project finance fell 28% to £4 billion and RWAs fell 33% to £2.7 billion.
- The decrease was largely due to Capital Resolution run-off, with the most significant reduction being in the Strong category (£1.2 billion in EAD terms) in the Rest of the World region.
- RWA density fell from 73% to 68%, driven by the reduction in exposure.

Credit risk

Asset quality analysis of non-counterparty credit risk exposures

CR 20: Retail IRB non-counterparty credit risk exposures post CRM by AQ band

For retail IRB exposures, defaulted exposures attract RWAs when best estimate of loss LGD differs from downturn LGD, in accordance with regulatory requirements.

Total retail exposures

	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
2015											
EAD post CRM (£m)	8,795	111	2,364	102,505	33,283	13,107	5,792	3,244	2,828	7,377	179,406
Exposure-weighted average LGD	53.6%	53.4%	7.3%	12.0%	30.3%	42.3%	56.9%	39.5%	34.6%	41.8%	23.1%
Exposure-weighted average PD	0.03%	0.04%	0.05%	0.21%	0.59%	1.45%	3.94%	10.71%	28.25%	100.00%	5.22%
RWAs (£m)	116	2	25	4,662	6,766	6,141	4,330	2,910	5,064	6,200	36,216
RWA density	1.3%	2.2%	1.0%	4.5%	20.3%	46.9%	74.8%	89.7%	179.0%	84.0%	20.2%
Undrawn commitments (£m)	9,888	62	1,577	15,309	15,193	3,567	751	187	22	331	46,887
Undrawn weighted average CCF	100.0%	100.0%	100.0%	100.0%	99.8%	99.7%	100.0%	100.0%	100.0%	100.0%	99.9%

2014

EAD post CRM (£m)	8,546	159	2,631	85,834	38,166	13,247	6,899	4,201	3,617	9,364	172,664
Exposure-weighted average LGD	53.6%	61.0%	10.0%	12.4%	27.9%	43.1%	58.2%	38.4%	35.9%	41.9%	24.8%
Exposure-weighted average PD	0.03%	0.05%	0.06%	0.22%	0.63%	1.52%	3.95%	11.00%	29.52%	100.00%	6.83%
RWAs (£m)	117	6	43	4,039	8,135	6,555	5,307	3,955	6,580	7,182	41,919
RWA density	1.4%	3.7%	1.6%	4.7%	21.3%	49.5%	76.9%	94.2%	181.9%	76.7%	24.3%
Undrawn commitments (£m)	9,553	76	1,682	13,929	14,262	3,918	1,103	219	57	298	45,097
Undrawn weighted average CCF	68.3%	100.0%	100.0%	67.6%	23.5%	37.0%	66.6%	90.6%	93.2%	4.0%	52.1%

Of which: Retail SME exposures (1)

2015

EAD post CRM (£m)	—	17	43	1,158	4,150	2,098	895	381	93	975	9,810
Exposure-weighted average LGD	—	50.8%	45.6%	56.1%	44.8%	53.7%	53.0%	58.8%	57.4%	72.5%	52.2%
Exposure-weighted average PD	—	0.04%	0.05%	0.19%	0.63%	1.47%	3.58%	10.16%	36.20%	100.00%	11.61%
RWAs (£m)	—	1	2	202	1,217	1,051	542	309	113	872	4,309
RWA density	—	5.5%	5.5%	17.5%	29.3%	50.1%	60.6%	81.0%	121.6%	89.4%	43.9%
Undrawn commitments (£m)	—	28	43	697	193	337	79	33	4	—	1,414
Undrawn weighted average CCF	—	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2014

EAD post CRM (£m)	—	49	109	1,369	3,995	2,636	1,232	527	159	1,575	11,651
Exposure-weighted average LGD	—	59.7%	76.4%	63.6%	38.0%	48.4%	51.6%	47.9%	52.3%	55.6%	48.3%
Exposure-weighted average PD	—	0.05%	0.05%	0.18%	0.65%	1.64%	3.68%	10.49%	37.32%	100.00%	15.51%
RWAs (£m)	—	4	13	308	1,239	1,536	836	411	194	692	5,233
RWA density	—	7.5%	12.3%	22.5%	31.0%	58.3%	67.9%	78.5%	121.9%	43.8%	44.9%
Undrawn commitments (£m)	—	27	83	696	88	488	135	31	6	—	1,554
Undrawn weighted average CCF	—	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	—	100.0%

For the notes to this table refer to page 56.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 20: Retail IRB non-counterparty credit risk exposures post CRM by AQ band *continued*

Of which: Retail secured by real estate collateral (2)

2015	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	—	—	2,321	97,348	22,718	7,528	1,410	1,716	2,447	4,852	140,340
Exposure-weighted average LGD	—	—	6.6%	9.6%	16.7%	25.3%	12.0%	11.5%	29.2%	24.2%	12.4%
Exposure-weighted average PD	—	—	0.05%	0.21%	0.57%	1.37%	4.00%	11.26%	26.48%	100.00%	4.41%
RWAs (£m)	—	—	23	4,128	3,469	3,050	519	975	4,303	4,493	20,960
RWA density	—	—	1.0%	4.2%	15.3%	40.5%	36.8%	56.8%	175.9%	92.6%	14.9%
Undrawn commitments (£m)	—	—	1,534	8,470	1,093	151	24	11	1	12	11,296
Undrawn weighted average CCF	—	—	100.0%	100.0%	97.4%	92.7%	100.0%	100.0%	100.0%	100.0%	99.7%
<hr/>											
2014											
EAD post CRM (£m)	—	—	2,522	80,564	27,935	6,660	1,383	2,273	3,043	5,772	130,152
Exposure-weighted average LGD	—	—	7.1%	9.2%	17.7%	23.9%	12.7%	13.3%	30.0%	25.7%	13.1%
Exposure-weighted average PD	—	—	0.06%	0.22%	0.63%	1.44%	3.63%	11.31%	27.94%	100.00%	5.67%
RWAs (£m)	—	—	30	3,378	4,949	2,631	511	1,460	5,443	5,447	23,849
RWA density	—	—	1.2%	4.2%	17.7%	39.5%	37.0%	64.2%	178.8%	94.4%	18.3%
Undrawn commitments (£m)	—	—	1,599	6,682	698	147	82	15	1	12	9,236
Undrawn weighted average CCF	—	—	100.0%	96.4%	97.5%	91.4%	99.9%	100.0%	100.0%	100.0%	97.1%

Of which: Qualifying revolving retail exposures (3)

2015											
EAD post CRM (£m)	8,795	94	—	3,859	4,397	2,380	2,560	892	199	616	23,792
Exposure-weighted average LGD	53.6%	53.8%	—	57.7%	67.1%	70.2%	75.0%	73.8%	70.3%	75.6%	62.2%
Exposure-weighted average PD	0.03%	0.04%	—	0.23%	0.62%	1.63%	4.07%	9.76%	38.53%	100.00%	4.04%
RWAs (£m)	116	1	—	281	820	977	2,164	1,254	454	316	6,383
RWA density	1.3%	1.6%	—	7.3%	18.6%	41.0%	84.6%	140.6%	227.6%	51.3%	26.8%
Undrawn commitments (£m)	9,888	34	—	6,142	13,906	3,079	648	143	17	319	34,176
Undrawn weighted average CCF	100.0%	100.0%	—	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<hr/>											
2014											
EAD post CRM (£m)	8,546	110	—	3,775	4,534	2,538	3,274	1,037	311	760	24,885
Exposure-weighted average LGD	53.6%	61.6%	—	59.8%	65.8%	69.2%	73.8%	74.6%	71.7%	76.4%	62.8%
Exposure-weighted average PD	0.03%	0.04%	—	0.25%	0.63%	1.59%	4.14%	10.71%	36.22%	100.00%	4.82%
RWAs (£m)	117	2	—	303	844	1,017	2,756	1,561	718	381	7,699
RWA density	1.4%	2.0%	—	8.0%	18.6%	40.1%	84.2%	150.6%	231.0%	50.3%	30.9%
Undrawn commitments (£m)	9,553	49	—	6,551	13,475	3,283	886	173	50	286	34,306
Undrawn weighted average CCF	68.3%	100.0%	—	34.9%	19.2%	25.2%	58.5%	88.1%	92.2%	—	37.9%

For the notes to this table refer to the following page.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 20: Retail IRB non-counterparty credit risk exposures post CRM by AQ band *continued*

Of which: other retail exposures (4)

2015	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	—	—	—	140	2,018	1,101	927	255	89	934	5,464
Exposure-weighted average LGD	—	—	—	62.4%	72.5%	76.7%	78.9%	78.6%	78.7%	79.0%	75.7%
Exposure-weighted average PD	—	—	—	0.32%	0.63%	1.55%	3.86%	11.14%	45.47%	100.00%	19.56%
RWAs (£m)	—	—	—	51	1,260	1,063	1,105	372	194	519	4,564
RWA density	—	—	—	36.8%	62.4%	96.5%	119.2%	146.1%	217.7%	55.6%	83.5%
Undrawn commitments (£m)	—	—	—	—	1	—	—	—	—	—	1
Undrawn weighted average CCF	—	—	—	100.0%	100.0%	100.0%	100.0%	—	—	—	100.0%
<hr/>											
2014											
EAD post CRM (£m)	—	—	—	126	1,702	1,413	1,010	364	104	1,257	5,976
Exposure-weighted average LGD	—	—	—	67.2%	71.4%	77.2%	78.1%	78.5%	77.7%	78.2%	75.8%
Exposure-weighted average PD	—	—	—	0.32%	0.70%	1.54%	4.09%	10.59%	43.87%	100.00%	23.69%
RWAs (£m)	—	—	—	50	1,103	1,371	1,204	523	225	662	5,138
RWA density	—	—	—	39.5%	64.8%	97.0%	119.2%	143.5%	215.9%	52.8%	86.0%
Undrawn commitments (£m)	—	—	—	—	1	—	—	—	—	—	1
Undrawn weighted average CCF	—	—	—	—	—	—	—	—	—	—	100.0%

Notes:

- (1) Consist primarily of loans and overdrafts to SMEs.
- (2) Consist of mortgages.
- (3) Consist primarily of personal credit card and overdraft exposures.
- (4) Consist primarily of unsecured personal loans.

Key points

- Overall Retail EAD increased 4% to £179 billion while RWAs fell 14% to £36 billion.
- Across all retail exposure classes, the year-on-year reduction in exposure across the AQ5 to AQ9 bands represents a migration of assets towards lower AQ bands, driven by regular model recalibrations undertaken to reflect recently observed default rates.
- The largest EAD increase was in the AQ4 band, driven by: (i) business strategy to raise mortgage lending and increase market share in this sector in UK PBB (£10 billion), and (ii) the migration of exposures from higher AQ bands (£5 billion). These increases related to the retail secured by real estate collateral sub-class.
- The implementation of a new banking book model contributed to a reduction in EAD (£0.8 billion) across the Retail SME, Qualifying retail exposures and Other retail exposures sub-classes.
- Overall RWA density fell from 24% to 20% due to: (i) lower PDs; and (ii) lower LGDs resulting from a consolidation and update of the models used to estimate LGD for RBS and NatWest branded mortgages.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 21: Equity exposures calculated using the IRB approach post CRM by AQ band

The exposures represent direct investments or investments in shares traded on an exchange.

	AQ3	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
2015								
EAD post CRM (£m)	—	—	261	48	—	—	—	309
Exposure-weighted average LGD	—	—	90.0%	90.0%	—	—	—	90.0%
RWAs (£m)	—	—	734	156	—	—	—	890
RWA density	—	—	281.5%	325.9%	—	—	—	288.1%
2014								
EAD post CRM (£m)	1	—	171	168	2	6	19	367
Exposure-weighted average LGD	90.0%	—	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
RWAs (£m)	1	—	483	530	11	35	—	1,060
RWA density	190.8%	—	282.8%	315.6%	503.9%	558.0%	—	289.0%

Key points

- EAD to equities subject to the IRB approach fell 16% to £309 million and RWAs also fell 16% to £890 million.
- The EAD and RWA increase in AQ6 was driven by new equity exposures.
- The EAD and RWA reduction in AQ7 was driven by the sale of several equity positions.

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 22: Equity exposures post CRM calculated using the simple risk-weight approach

	2015				2014			
	Exchange traded equity exposures	Private equity exposures	Other equity exposures	Total	Exchange traded equity exposures	Private equity exposures	Other equity exposures	Total
2015								
EAD post CRM (£m)	45	280	257	582	152	278	202	632
RWAs (£m)	132	530	951	1,613	443	528	748	1,719
RWA density	290.0%	190.0%	370.0%	277.4%	290.0%	190.0%	370.0%	271.7%
Undrawn commitments (£m)	—	124	10	134	—	182	24	206
Undrawn weighted average CCF	—	100.0%	100.0%	100.0%	—	100.0%	100.0%	100.0%

Key points

- EAD to equities subject to the simple risk weight approach fell 8% to £582 million and RWAs fell 6% to £1.6 billion.
- Exchange traded EAD fell, reflecting a reduction in the book value of exposures.

Credit risk

Asset quality of non-counterparty credit risk exposures

Asset quality of non-counterparty credit risk exposures under the STD approach

Under the STD approach, RBS uses credit quality steps (CQS) to calculate the RWAs associated with non-counterparty credit risk exposures. Each rated exposure in the STD portfolio is assigned to one of six CQS. The CQS map to the rating of the three major rating agencies, as shown in the table below. Each CQS is associated with a particular risk-weighting. Each exposure is multiplied by the appropriate risk weighting to calculate the relevant RWA amount. If no external rating is available, RBS assigns the exposure a risk-weighting in line with the CRR.

CR 23: STD exposures, credit quality steps mapping to external credit gradings

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

CR 24: Total standardised non-counterparty credit risk exposure by credit quality step

The following table analyses the asset quality of RBS's non-counterparty credit risk exposures using the STD approach. For these exposures, the asset quality is disclosed according to CQS, as defined in Table CR 23.

STD exposure class	Credit quality step						Unrated exposure £m	Total £m
	Step 1 £m	Step 2 £m	Step 3 £m	Step 4 £m	Step 5 £m	Step 6 £m		
2015								
Central governments and banks	60,170	—	—	—	—	—	1,969	62,139
Regional governments or local authorities	32	9	—	—	—	—	169	210
Multilateral development banks	17	—	—	—	—	—	—	17
Institutions	182	278	2	—	—	—	396	858
Corporates	27	367	75	8	3	—	17,822	18,302
Retail	—	—	—	—	—	—	3,607	3,607
Secured by mortgages on								
- residential property	—	—	—	—	—	1	10,591	10,592
- commercial real estate	—	—	—	—	—	—	3,183	3,183
Past due items	—	—	—	—	—	—	632	632
Exposures with particularly high risk	—	—	—	—	—	—	191	191
Covered bonds	144	—	—	—	—	—	—	144
Collective investment undertakings	—	—	—	12	—	—	—	12
Equity claims	23	—	—	85	—	—	47	155
Other items	13	—	—	—	—	—	413	426
Total EAD post CRM	60,608	654	77	105	3	1	39,020	100,468
Total EAD pre CRM	60,608	654	77	105	3	1	40,244	101,692

Credit risk

Asset quality of non-counterparty credit risk exposures

CR 24: Total standardised non-counterparty credit risk exposure by credit quality step *continued*

STD exposure class 2014	Credit quality step						Unrated exposure £m	Total £m
	Step 1 £m	Step 2 £m	Step 3 £m	Step 4 £m	Step 5 £m	Step 6 £m		
Central governments and banks	61,450	—	—	—	—	—	3	61,453
Regional governments or local authorities	194	14	77	—	13	—	5	303
Administrative bodies and non-commercial undertakings	55	—	—	—	—	—	—	55
Multilateral development banks	118	—	—	—	—	—	—	118
Exposures to international organisations	7	—	—	—	—	—	—	7
Institutions	862	631	17	—	—	—	211	1,721
Corporates	8,440	965	2,744	2,136	1,728	175	33,677	49,865
Retail	—	—	—	—	—	—	22,575	22,575
Secured by mortgages on								
- residential property	—	—	—	—	—	—	25,449	25,449
- commercial real estate	—	16	49	39	65	18	8,725	8,912
Past due items	—	—	60	—	—	—	1,691	1,751
Covered bonds	132	—	—	—	—	—	—	132
Collective investment undertakings	—	—	—	29	—	—	—	29
Equity claims	21	11	—	116	—	—	328	476
Other items	63	204	235	7	9	7	832	1,357
Securitisation positions	949	153	6	23	225	—	—	1356
Total EAD post CRM	72,291	1,994	3,188	2,350	2,040	200	93,496	175,559
Total EAD pre CRM	72,294	1,993	3,189	2,350	2,040	199	95,582	177,647

Key points

- Overall EAD post CRM subject to the STD approach fell 37% to £110 billion at 31 December 2015.
- The large decrease in the Unrated category was mainly driven by the disposal of Citizens (£62 billion) and repayments and expired facilities in the shipping and Asia and EMEA loan portfolios in CIB.
- The reduction in the Unrated category was partly offset by the inclusion for 2015 of the Other items listed on page 20.
- The reduction in CQS 1 was driven by the disposal of Citizens mainly affecting corporates (£8 billion), securitisation positions (£1 billion) and central governments (£8 billion). This was partly offset by an increase in exposure to the Bank of England and the Government of the United Kingdom in Treasury (£8 billion) as part of ongoing liquidity management.
- The reductions in corporates in CQS 2 to CQS 6 were also driven by the disposal of Citizens.

Credit risk

Expected loss and impairment

The table below shows the expected loss estimated for the following year at 31 December 2014 and 31 December 2013, and the impairment charges recorded for each of the subsequent years. It includes expected losses both for assets that have already defaulted (and for which an impairment was recognised where appropriate under IFRS) and for assets that were still performing at the year end.

Expected loss is calculated by applying RBS's PD, LGD and EAD models to its portfolios. The PD models incorporate differing degrees of through-the-cycle (TTC) and point-in-time characteristics depending on the portfolio.

The impairment charge is the amount recorded in the income statement. RBS's accounting policy on impairments is set out on pages 273 and 278 of the 2015 ARA.

The methodologies and underlying principles used to calculate expected loss in accordance with regulatory requirements differ significantly from those followed for the recognition of impairments under financial reporting standards. Impairments are typically calculated where a loss has occurred (for example, under the IFRS incurred loss model). An expected loss is a forward-looking measure that is applied to all assets regardless of whether a loss has been incurred.

Key differences include the following:

- *Timing* - For the period between a default and the associated asset being written-off or recovered, an expected loss is calculated according to regulatory requirements, while some or all of the associated impairment may already be recognised in the income statement.
- *Cyclical* - For PD models with predominantly TTC characteristics (notably wholesale models), expected loss does not, by definition, produce a result that aligns with actual loss experience in every one year period.

For regulatory capital purposes, as at 31 December 2015, the amount by which expected loss exceeds cumulative impairment provisions is deducted from capital.

CR 25: Expected loss and impairment charge

IRB exposure class	Expected loss estimated for following year at the end of								Impairment (release)/charge for the year	
	2014				2013					
	Non-defaulted (AQ1-AQ9) £m	Defaulted (AQ10) £m	Total £m	EL/EAD %	Non-defaulted (AQ1-AQ9) £m	Defaulted (AQ10) £m	Total £m	EL/EAD %	2015 £m	2014 £m
Central governments and banks	14	—	14	—	9	—	9	—	—	—
Institutions	20	37	57	0.2	30	60	90	0.2	—	—
Corporates	776	13,120	13,896	5.6	1,147	19,508	20,655	8.2	(764)	(1,481)
Retail										
- SMEs	140	1,049	1,189	10.2	178	1,003	1,181	10.4	(73)	40
- secured by real estate collateral	364	1,047	1,411	1.1	606	1,119	1,725	1.3	(112)	(198)
- qualifying revolving retail	319	550	869	3.5	375	669	1,044	4.0	15	85
- other retail	124	933	1,057	17.7	154	1,146	1,300	20.9	69	176
Equities	15	17	32	3.2	16	20	36	4.5	2	3
	1,772	16,753	18,525	3.6	2,515	23,525	26,040	4.8	(863)	(1,375)

Key points

- Expected loss at 31 December 2014 was £18.5 billion, a 29% or £7.5 billion decrease from one year previously. The expected loss at 31 December 2015 was £8.2 billion.
- The ongoing reduction in expected loss is a reflection of the disposal of higher-risk assets in line with strategy.
- The impairment release in 2015, following a larger release in 2014, reflected continued favourable market conditions and efficient deal execution that supported the disposal strategy. Of the total 2015 impairment release of £0.9 billion, £0.8 billion related to RCR in Capital Resolution.

Credit risk

Probability of default and exposure at default

Wholesale credit grading models are hybrid models. They exhibit a degree of cyclicality that reflects broader credit conditions, but not the full cyclicalities of a more point-in-time methodology.

The following table shows, for each of the past two years, the PD estimated for that year at the end of the previous year, compared with the actual default rate realised during the year. For wholesale exposures, the estimate shown is the averaged counterparty PD. For retail exposures, it is the averaged account-level PD. Exposures in default at the end of the previous year are excluded from the PD estimates as their probability of default is 100%. The default rate is the number of defaults observed during the year, divided by the number of obligors or accounts at the end of the previous year.

The EAD ratio displayed represents, for each year, the total EAD estimated for that year at the end of the previous year, against the actual exposure at the time of default for all assets that defaulted during the year.

CR 26: Estimated probability of default, actual default rates and EAD outcomes versus estimates

IRB exposure class	PD				EAD	
	PD estimate at 2014 %	Actual default rate 2015 %	PD estimate at 2013 %	Actual default rate 2014 %	Estimate to actual ratio 2015 %	Estimate to actual ratio 2014 %
Central governments and banks	0.65	—	0.83	—	—	—
Institutions	0.57	0.35	0.65	—	—	—
Corporates	2.30	1.48	2.55	1.61	107	116
Retail						
- SMEs	2.32	2.02	3.40	2.34	116	117
- secured by real estate collateral	1.23	0.71	1.80	1.17	103	102
- qualifying revolving retail	2.04	1.26	1.96	1.62	112	111
- other retail	3.35	2.93	4.01	3.30	109	109
Equities	3.49	1.55	2.92	2.56	—	—

Key points

- In all exposure classes, actual default experience in 2015 was below estimated outcomes, as had been the case the previous year.
- In all wholesale exposure classes, PD estimates fell on the back of the disposal of higher-risk assets in line with strategy, offsetting higher risk estimates from updated models.
- In the Corporates class, the EAD ratio fell, reflecting a sharp decline in the defaulted exposure on amortising loans.
- In all retail exposure classes, actual default rates fell, reflecting a general improvement in credit quality.
- In three of the four retail sub-classes, PD estimates fell in response to actual default experience. The increase in the qualifying revolving retail sub-class reflects a temporary outcome of the bank's regular calibration methodology that has since reversed.

Credit risk

Loss given default

Corporates

In the Corporates exposure class, actual LGD includes all defaulted client cases that closed during the year, excluding those formerly managed by RCR (now within Capital Resolution).

The estimated LGDs are the average pre-default estimates for these defaults, with the actual LGDs being the averaged observed outcomes, time discounted to reflect the varying workout periods. Both estimated and actual LGDs are EAD-weighted.

Closure of a defaulted client case occurs upon a debt being repaid, fully or partially written off, or returned to the performing book, or a combination of these outcomes.

The former RCR default cases relate to clients that are in discontinued businesses, form part of loan sale programmes or are in accelerated exit portfolios.

Significant disposal activity took place in 2015, leaving residual low-value portfolios to be transferred back into the main business.

Data for these assets have been excluded from the table below for both 2014 (restated) and 2015 as the outcomes do not represent expected future model performance, for the following specific reasons:

- Pre-default estimates were assessed on discontinued models;
- Actual LGD outcomes do not reflect normal workout processes; and
- Assets do not represent future 'go-forward' business.

Retail

In the retail exposure classes, estimated LGDs relate to loss estimates on defaulted exposures over defined periods ranging from 36 to 72 months, to align with the collections and recoveries process. The corresponding actual losses included in the table relate to the same exposures, with outcomes observed during the relevant reporting period.

Central governments, banks, institutions and equities are not included owing to nil or very low volumes, hence disclosure is not meaningful.

CR 27: Loss outcomes versus estimates

IRB exposure class	2015		2014	
	LGD - estimated %	LGD - actual %	LGD - estimated %	LGD - actual %
Corporates	32.9	32.8	39.0	38.1
Retail				
- SMEs	73.0	61.5	53.0	40.2
- secured by real estate collateral	33.2	19.6	21.9	10.5
- qualifying revolving retail	77.9	73.1	78.3	73.2
- other retail	79.6	75.5	81.3	74.0

Key points

- In all exposure classes, actual loss experience in 2015 was below estimated outcomes, as had been the case the previous year.
- In the Corporates class, both loss estimates and outcomes declined in 2015, as 2014 had been marked by a small number of large exposures with high losses. On an unweighted basis, losses were stable year on year.
- In the qualifying revolving retail and other Retail sub-classes, loss estimates and outcomes remained broadly stable year on year.

- In the retail SME and retail secured by real estate collateral sub-classes, the increase in loss experience reflects a change in approach to include unresolved accounts in the populations disclosed for all segments. Cases that remain unresolved at the end of the outcome period tend to be associated with higher losses. Stripping out the impact of this change, loss experience in these sub-classes was broadly stable.
- In the retail SME sub-class, the increase in loss estimate reflects the introduction of a new model in May 2015.
- In the retail secured by real estate collateral sub-class, the increase in loss estimate reflects economic conditions in the Republic of Ireland, the inclusion of unresolved accounts and the introduction of a new model for a segment of the UK portfolio.

Credit risk

Past due and impaired assets

A credit exposure is past due when its contractual repayment is overdue by 90 days or more.

A loan is impaired and an impairment loss is incurred when there is objective evidence that events since the loan was granted have adversely affected expected cash flows from the loan. The impairment loss is the difference between the carrying value of the loan and the present value of estimated future cash flows discounted at the loan's original effective interest rate.

For more details on impairment loss provisioning refer to pages 273 and 278 of the 2015 ARA.

Disclosure basis

The following tables detailing past due and impaired assets and provisions are measured on IFRS basis but presented on regulatory consolidation basis.

CR 28: Past due and impaired assets and provisions by industry sector

Industry sector	Impaired assets (1) £m	Past due assets £m	Individually and collectively assessed provisions £m	Latent provisions £m	Total provisions £m	Charge/(release) to income statement (2) £m
2015						
Agriculture and fisheries	76	29	55		55	(2)
Building and construction	418	29	319		319	43
Business services	734	8	671		671	(94)
Financial services	187	8	141		141	(22)
Manufacturing	387	14	213		213	33
Individuals	4,286	686	2,159		2,159	40
Power and water	131	—	63		63	8
Property	3,066	370	1,983		1,983	(615)
Public sector and quasi-government	341	54	191		191	14
Telecoms, media and technology	45	—	45		45	25
Tourism and leisure	283	53	201		201	1
Transport and storage	555	8	258		258	115
Wholesale and retail trade	420	28	313		313	7
Latent				626	626	(404)
	10,929	1,287	6,612	626	7,238	(851)
2014						
Agriculture and fisheries	158	34	98		98	1
Building and construction	968	34	640		640	18
Business services	1,207	14	1,060		1,060	(7)
Financial services	558	4	387		387	(15)
Manufacturing	464	18	336		336	(20)
Individuals	5,680	776	2,913		2,913	267
Power and water	158	—	87		87	17
Property	12,442	517	8,900		8,900	(1,019)
Public sector and quasi-government	608	97	359		359	—
Telecoms, media and technology	10	—	22		22	(10)
Tourism and leisure	988	101	574		574	(36)
Transport and storage	1,126	8	499		499	36
Wholesale and retail trade	939	37	665		665	115
Latent				1,056	1,056	(692)
	25,306	1,640	16,540	1,056	17,596	(1,345)

Notes:

(1) Excludes debt securities and equity shares totalling £450 million (2014 - £442 million).

(2) Excludes impairment losses on debt securities and equity shares totalling £126 million (2014 - £12 million).

Credit risk

Past due and impaired assets

CR 28: Past due and impaired assets and provisions by industry sector *continued*

	2015				2014			
	RBS £m	RBS plc £m	NWB Plc £m	UBIL £m	RBS (1) £m	RBS plc £m	NWB Plc £m	UBIL £m
Impaired assets (1)	10,929	2,808	2,168	4,740	25,306	6,177	3,399	12,750
Past due assets	1,287	544	701	20	1,640	670	811	93
Individually and collectively assessed provisions	6,612	1,438	1,536	2,786	16,540	3,144	2,277	8,738
Latent provisions	626	133	157	249	1,056	319	253	372
Total provisions	7,238	1,571	1,693	3,035	17,596	3,463	2,530	9,110
Charge to income statement (2)	(851)	(254)	(12)	(676)	(1,345)	(35)	228	(1,379)

Notes:

- (1) Excludes Citizens disposed in 2015 for comparative purposes: impaired assets - £1,330 million; total provisions - £536 million.
- (2) Excludes debt securities and equity shares totalling: RBS £450 million (2014 - £442 million); RBS plc £94 million (2014 - £267 million); NWB Plc nil (2014 - nil million); and UBIL £7 million (2014 - £8 million).
- (3) Excludes debt securities and equity shares totalling: RBS £126 million (2014 - £12 million); RBS plc nil million (2014 - £(10) million); NWB Plc nil million (2014 - £2 million) and UBIL £1 million (2014 - nil).

For more details on past due and impaired assets also refer to Balance sheet analysis - Loans and related credit metrics in the 2015 Annual Report and Accounts of RBS, RBS plc and NWB Plc and similar disclosures in UBIL.

CR 29: Past due and impaired assets and provisions by geographic area

Geographic area (1)	Impaired assets (2) £m	Past due assets £m	Individually and collectively assessed provisions £m			Total provisions £m	Charge/(release) to income statement (3) £m
			Latent provisions £m	Total provisions £m	Charge/(release) to income statement (3) £m		
2015							
UK	6,095	1,262	3,707	3,707	3,707	291	
Europe	4,593	25	2,719	2,719	2,719	(707)	
US	105	—	60	60	60	(9)	
RoW	136	—	126	126	126	(22)	
Latent			626	626	626	(404)	
	10,929	1,287	6,612	626	7,238	(851)	
2014							
UK	11,562	1,535	7,551	7,551	7,551	119	
Europe	13,296	105	8,668	8,668	8,668	(763)	
US	87	—	21	21	21	(36)	
RoW	361	—	300	300	300	11	
Latent			1,056	1,056	1,056	(676)	
	25,306	1,640	16,540	1,056	17,596	(1,345)	

Notes:

- (1) The analysis by geographic area is based on the location of the lender. This analysis is used for financial reporting and differs from Tables CR 4 and CR 9 which are based on the country of operation of the counterparty.
- (2) Excludes debt securities and equity shares totalling £450 million (2014 - £442 million).
- (3) Excludes impairment losses on debt securities and equity shares totalling £126 million (2014 - £12 million).

Credit risk

Past due and impaired assets

CR 30: Loan impairment provisions flow statement

	Individually assessed provisions (1) £m	Collectively assessed provisions £m	Latent provisions £m	Total provisions £m
At 1 January 2014	16,889	6,184	1,711	24,784
Currency translation and other adjustments	(674)	(77)	37	(714)
Disposal of subsidiaries	(6)	—	—	(6)
Amounts written-off	(3,961)	(1,017)	—	(4,978)
Recovery of amounts previously written-off	65	37	—	102
(Release)/charge to income statement				
- continuing operations (2)	(825)	172	(692)	(1,345)
Unwind of discount	(138)	(109)	—	(247)
31 December 2014	11,350	5,190	1,056	17,596
Transfer from disposal groups	—	—	—	—
Currency translation and other adjustments	(438)	(110)	(26)	(574)
Disposal of subsidiaries	—	—	—	—
Amounts written-off	(7,802)	(1,162)	—	(8,964)
Recovery of amounts previously written-off	104	71	—	175
Release to income statement				
- continuing operations (2)	(412)	(35)	(404)	(851)
Unwind of discount	(51)	(93)	—	(144)
At 31 December 2015	2,751	3,861	626	7,238

Notes:

- (1) Excludes debt securities and equity shares totalling £450 million (2014 - £442 million).
- (2) Excludes impairment losses on debt securities and equity shares totalling £126 million (2014 - £12 million).

Key points

- Net impairment releases of £851 million were 37% lower compared with net impairment releases of £1,345 million in 2014. Although releases were at lower levels than in 2014, credit quality was stable with continued elevated recoveries in certain businesses.
- Risk elements in lending (REIL) declined by £14.7 billion to £12.2 billion. The reduction was driven by the disposal of Citizens and the continued rundown of Capital Resolution.
- The reduction in REIL and impairments across all industry sectors was in line with improved economic conditions and asset quality.

Credit risk

Counterparty credit risk

Counterparty credit risk relates to derivative contracts, securities financing transactions (SFTs), exchange-traded derivatives (ETDs) and long settlement transactions in either the trading or the non-trading book. It is the risk of loss arising from a default of a customer before the final settlement of the transaction's cash flows, which vary in value by reference to a market factor, such as an interest rate, exchange rate or asset price.

Counterparty credit risk is covered by RBS's credit risk framework. However, a number of specific policies apply to over-the-counter (OTC) derivatives, ETDs and SFTs. These include policies that address documentation requirements, product-specific requirements (for example, futures, credit derivatives and securities lending), counterparty specific requirements (for example, hedge funds and pension funds), margin trading, collateral and custodians.

EAD calculation methods

Internal model method (IMM)

RBS has permission from the PRA to use an IMM for calculating EADs for regulatory capital requirements for certain derivatives.

The IMM calculates EAD as the product of effective expected positive exposure (EEPE) or stressed EEPE whichever is the higher, and the regulatory prescribed alpha multiplier. The alpha multiplier, which was 1.4 for both 2014 and 2015 and uplifts the EAD, is indicative of the robustness of an institution's approach and governance framework for managing counterparty credit risk.

In accordance with the CRR requirements, the IMM for OTC derivatives is adjusted for wrong-way risk (for more information on wrong-way risks, refer to page 70), collateral and an increased margin period of risk, when appropriate.

Mark-to-market (mtm) method

For derivatives that fall outside the IMM and for SFTs and ETDs where RBS does not have permission to use the IMM to calculate EAD for regulatory capital purposes, it calculates counterparty credit risk exposures using the mtm method. Exposure is calculated as the positive mtm value of outstanding contracts plus a potential future exposure. Exposure is adjusted for collateral, including any haircuts applied to collateral in accordance with regulatory requirements.

The following table details counterparty credit risk exposures post CRM by regulatory approach, exposure calculation method and product type. For an analysis of counterparty RWAs and minimum capital requirements, refer to Tables CAP 1, CR 2, CR 5, CR 6 and CR 7.

CR 31: Counterparty credit risk exposures by regulatory approach, calculation method and product type

Product type	2015				2014			
	Mtm method £m	IMM £m	Default fund method £m	Total £m	Mtm method £m	IMM £m	Default fund method £m	Total £m
<i>IRB approach (1)</i>								
OTC derivatives	8,574	24,906	—	33,480	13,332	29,757	—	43,089
Exchange-traded derivatives	2,075	—	—	2,075	2,589	—	—	2,589
SFT	11,530	—	—	11,530	18,927	—	—	18,927
	22,179	24,906	—	47,085	34,848	29,757	—	64,605
<i>STD approach</i>								
OTC derivatives	418	1,605	—	2,023	2,331	1,268	—	3,599
Exchange-traded derivatives	1,754	—	—	1,754	1,692	—	—	1,692
Central counterparty default funds	—	—	155	155	—	—	336	336
SFT	4,617	—	—	4,617	7,932	—	—	7,932
	6,789	1,605	155	8,549	11,955	1,268	336	13,559
	28,968	26,511	155	55,634	46,803	31,025	336	78,164

Note:

(1) Includes exposures treated under the supervisory slotting approach.

Key points

- Counterparty credit risk EAD fell 29% to £56 billion.
- The reductions in OTC derivative and securities financing transactions (SFT) largely reflected disposals and trades rolling off, in line with strategy.
- The reduction in exposure under the mtm method additionally reflected the ongoing exercise to move eligible trades to central counterparties.

- A focus on taking additional collateral from certain counterparties, to further mitigate risk, also contributed to the decline in EAD.
- Continued participation in compression trades aimed at reducing the notional exposure to OTC derivatives also contributed to the decline in exposure.

Credit risk

Counterparty credit risk

CR 32 Counterparty credit risk EAD by AQ band under the IRB approach (excluding the supervisory slotting approach)

2015	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
S&P ratings	AAA to AA	AA-	A+ to A	A- to BBB-	BB+ to BB	BB-	B+ to B	B- to CCC+	CCC to C	D	
EAD post CRM (£m)	16,190	4,454	10,462	11,208	1,460	333	380	11	15	19	44,532
Exposure-weighted average LGD	46.0%	50.0%	38.0%	45.0%	48.0%	43.0%	35.0%	38.0%	16.0%	51.0%	44.0%
Exposure-weighted average PD	—	—	—	—	1.00%	1.00%	3.00%	10.00%	21.00%	100.00%	—
RWAs (£m)	2,768	2,260	4,370	7,601	1,551	400	578	17	14	18	19,577
RWA density	17.0%	51.0%	42.0%	68.0%	106.0%	120.0%	152.0%	157.0%	88.0%	92.0%	44.0%
<hr/>											
2014											
EAD post CRM (£m)	27,128	8,078	12,222	9,625	2,375	357	625	40	25	235	60,710
Exposure-weighted average LGD	35.7%	53.3%	44.5%	43.1%	54.8%	46.3%	37.0%	43.1%	43.7%	60.8%	41.9%
Exposure-weighted average PD	0.02%	0.04%	0.07%	0.17%	0.65%	1.50%	3.09%	9.13%	21.25%	100.00%	0.52%
RWAs (£m)	4,578	3,596	4,886	6,137	2,660	466	776	85	66	99	23,349
RWA density	16.9%	44.5%	40.0%	63.8%	112.0%	130.4%	124.0%	213.3%	260.0%	42.3%	38.5%

Key point

- Counterparty credit risk EAD post CRM subject to the IRB approach fell 27% to £44.5 billion and RWAs fell 16% to £19.5 billion. The downward trend was driven principally by reductions in OTC derivative and SFT trades across most AQ bands, in line with strategy.

Credit risk

Counterparty credit risk

Counterparty credit limit setting

Counterparty credit limits are established through the credit risk management framework. Limits are based on the credit quality of the counterparty and the appetite for the projected maximum potential future exposure of transactions, based on 95th percentile confidence levels. They also reflect the nature of the relevant documentation and the anticipated close-out periods in the event of default.

Counterparty credit risk management

The credit policy framework governs counterparty credit risk management requirements. Industry standard documentation (for example, International Swaps and Derivatives Association master agreements for derivatives and Global Master Repurchase Agreements for SFTs) is executed for clients prior to trading. Exceptions to this require specific approval from a senior credit risk officer. The legal and administrative capacity of counterparties to enter into legal agreements, including collateral agreements (such as a credit support annex) is assessed. The policy framework establishes minimum documentation requirements under collateral agreements including: collateral threshold amounts; minimum transfer amounts; minimum haircuts; collateral eligibility criteria; and collateral call frequency.

Where netting is not enforceable, exposures are shown gross, and where netting and collateral enforceability criteria are not fulfilled, exposure is assumed to be uncollateralised. The framework also includes a formal escalation policy for counterparty collateral disputes and unpaid collateral calls.

The risk mitigating impact of netting and collateralisation on the counterparty credit risk relating solely to derivatives under the mtm method is shown in the following table. Owing to the model structure, netting benefits cannot be provided for derivatives under the IMM approach.

CR 33: Netting and collateralisation impact on OTC and exchange-traded derivatives under the mtm method

Counterparty credit risk	2015 £m	2014 £m
Positive gross mtm value of contracts plus potential future credit exposure	30,481	48,559
Netting benefits	(8,051)	(17,240)
Net current credit exposure plus potential future credit exposure	22,430	31,319
Collateral held	(9,609)	(11,375)
Exposure at default post CRM	12,821	19,944

Key points

- The positive gross mtm value of contracts plus potential future credit exposure fell 37% to £30 billion, reflecting the decreased trading volumes in CIB and Capital Resolution, in line with the bank's risk reduction strategy.
- The netting benefits fell from 36% to 26% of the positive gross mtm value of contracts plus potential future credit exposure. The reduction was driven by continued disposals in the OTC derivative portfolio, mostly related to out-of-the-money trades.

- Collateral held increased from 36% to 43% of the net current credit exposure plus potential future credit exposure, reflecting active collateral management to mitigate risk.

Credit risk

Counterparty credit risk

Collateral required in the event of a credit rating downgrade
RBS calculates the additional collateral it would be required to post in the event of its credit ratings being downgraded by one or two notches. This is undertaken on a daily basis for treasury and liquidity management purposes.

Credit valuation adjustments

A credit valuation adjustment represents an estimate of the adjustment to the fair value of a derivative contract that a market participant would make, to incorporate any credit risk inherent in counterparty derivative exposures. Refer to page 229 of the 2015 ARA for additional disclosures.

The counterparty exposure management (CEM) team charges the relevant trading desk a credit premium at the inception of a trade, in exchange for taking on the credit risk over the life of the transaction. CEM may then hedge the credit risk and default sensitivities using interest rate swaps, foreign exchange and other credit derivatives from third party providers.

Credit valuation adjustments (CVA) are capitalised via the regulatory CVA charge. This is aimed at improving banks' resilience against potential mark-to-market losses associated with deterioration in the creditworthiness of counterparties to non-cleared derivative trades. Under CRR rules, the charge is calculated using either the advanced approach or the standardised approach. To the extent that banks have regulatory approval to use the IMM to calculate counterparty credit risk capital and permission to use an internal value-at-risk model for the specific risk of debt instruments, the advanced approach is used. For products that fall outside the model permissions, the standardised approach, which is based on the external credit rating of the counterparty, must be used.

The CVA capital charge is included in the minimum capital requirement for counterparty credit risk shown in Table CR 2.

Credit derivatives

As part of its strategy to manage credit risk concentrations, RBS buys credit derivative products. The counterparties from which this protection is bought are subject to standard credit risk analysis. Eligibility criteria apply: credit protection bought from the same counterparty group as the reference entity is not eligible in cases where double default under CRR article 153(3) applies. Disclosures on credit derivatives are included on page 230 of the 2015 ARA.

Wrong-way risks

Wrong-way risk represents the risk of loss that arises when the risk factors driving the exposure to a counterparty are positively correlated with the probability of default of that counterparty, i.e. the size of the exposure increases at the same time as the risk of the counterparty being unable to meet that obligation increases.

In addition to its usual credit approval and credit authority policies, RBS also manages its exposure to wrong-way risk through a dedicated policy that establishes a framework incorporating approvals, controls, limits and regular monitoring, where appropriate.

Under the framework, enhanced transaction approval is required and limits are set to constrain wrong-way risk arising through currency exposure to countries classified as high-risk under the internal Watchlist process. The reporting process includes a monthly review of wrong-way risks arising either from such currency exposure or through reverse repos, credit derivatives and equity trades.

The framework distinguishes between specific wrong-way risk (where the risk factor driving the exposure is specific to the counterparty) and general wrong-way risk (where the risk factor driving the exposure is not specific to the counterparty but still positively correlated with its probability of default, for instance country or currency related factors).

Securitisation

Securitisation

Framework, roles and definitions

This section presents descriptive information on RBS's securitisation activities and related risk management processes and accounting policies, followed by quantitative disclosures on its exposures to securitisations.

Definitions

Securitisation and special purpose entities

The CRR defines a securitisation as a transaction or scheme where the credit risk of an exposure or pool of exposures is tranches, where the payments arising from the transaction or scheme are dependent upon the performance of the underlying exposure(s) and where the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme.

Securitisations can broadly take two forms: traditional and synthetic. In traditional securitisations, the originator transfers ownership of the underlying exposure(s) to a securitisation special purpose entity (SSPE), putting the exposure(s) beyond the reach of the originator and its creditors. The purchase of the underlying exposure(s) by the SSPE is funded by the issuance of securities. In synthetic securitisations, the originator retains ownership of the underlying exposure(s) but transfers the associated credit risk to another entity through the use of credit derivatives.

SSPEs are set up for a specific limited purpose. They do not provide a commercial service or employ staff. They may take a variety of legal forms, such as trusts, partnerships and companies. Their activities are limited to those appropriate to carrying out a securitisation and their structure is intended to isolate the obligations of the SSPE from those of the originator institution and to ensure that the holders of the beneficial interests have the right to pledge or exchange those interests without restriction. Typically, their share capital is held ultimately by charitable trusts.

Although SSPEs are frequently used, they are not necessarily required for all securitisation structures.

The following definitions are used in these Pillar 3 disclosures:

Trading book - The trading book consists of positions in financial instruments and commodities held either with the intent to trade or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any covenants restricting their tradability or be able to be hedged.

Non-trading book - The non-trading book consists of positions, exposures, assets and liabilities that are not in the trading book. It is also referred to as the 'banking book'. In this section, the counterparty credit risk arising from derivative trades associated with SSPEs is captured in the non-trading book disclosures.

Securitisation position - Any exposure to a securitisation that falls within the scope of regulatory treatment (further details on page 76). This includes not only exposures arising from the purchase or retention of the securities issued by an SSPE but also loans and liquidity facilities to securitisations, and the counterparty.

Re-securitisation - A securitisation in which the underlying asset or pool of assets comprises at least one securitisation position.

Securitised exposure - An asset or pool of assets that is securitised by way of a traditional or synthetic securitisation.

Significant risk transfer assessment - An assessment prescribed by the CRR and designed to determine whether or not a securitisation structure effectively transfers the underlying risks of the assets to a party or parties other than the originator.

Term securitisation - A securitisation vehicle funding a pool of assets through the issuance of long-term securities. A term securitisation may hold the assets of one or more originators.

Asset-backed commercial paper (ABCP) conduit - A securitisation vehicle funding a pool of assets through the issuance of predominantly short-term securities (namely commercial paper). A conduit may hold the assets of one or more originators (referred to as a single-seller or multi-seller conduit, respectively), one of which may also be the sponsor.

Objectives and roles

By participating in securitisation activity, RBS aims to achieve one or both of the following objectives:

- To diversify its sources of funding, either for its own purposes or for customers; and
- To facilitate prudential balance sheet and risk management, either for its own purposes or for customers.

In doing so, RBS may incur a range of risks, including credit (non-counterparty and counterparty), market, liquidity and funding, legal, regulatory and reputational risks for which it must hold regulatory capital. For details of CRR rules governing the calculation of regulatory capital required in respect of securitisations, refer to page 76.

RBS may play one or more of the following roles in a securitisation transaction:

Originator - To diversify its sources of funding and manage its balance sheet, RBS securitises assets it has purchased or originated. The origination of securitisation assets may expose it to credit risk (non-counterparty and counterparty) and market risk, particularly if the structure of the transaction does not transfer these risks to third parties. Even if these risks have been transferred, it may nevertheless be exposed to credit and market risks if it retains a securitisation position by, for example, providing the SSPE with a liquidity facility or entering into derivative transactions with the SSPE.

Securitisation

Framework, roles and definitions

Investor - To generate financial returns, RBS may:

- purchase securities issued by an SSPE;
- enter into derivative transactions with an SSPE; or
- lend to an SSPE, often by providing a back-up liquidity facility that the SSPE can use if it is unable to issue securities, particularly commercial paper. Investment in securitisations exposes RBS to market risk and credit risk, both non-counterparty and counterparty.

To generate additional fee income, RBS may play other roles as well:

Sponsor - RBS may establish and manage a term securitisation that purchases bonds or other financial assets from third parties. It may do so on its own account or on behalf of its customers. Additionally, it historically established and managed ABCP conduits. In its role as sponsor, it is particularly exposed to credit and liquidity risk.

Arranger - RBS may structure a securitisation transaction, drafting the documentation that governs the behaviour of the SSPE, and then sell the securities issued by the SSPE to investors. It may act as arranger for securitisation transactions it originates or, alternatively, for securitisation transactions originated by its customers, principally large corporates.

Manager - RBS may manage the securitisation as required by the terms of the transaction. This may, for example, entail rebalancing the asset pool as and when necessary.

Underwriter - RBS may underwrite the securities issued by an SSPE. The associated securitisation transaction may be originated by RBS or its customers.

Other administrative roles - As a 'contractual party', RBS may do any of the following, alone or in combination:

- hold the bank account of an SSPE on its own books;
- monitor the credit quality of the underlying assets on behalf of investors;
- report on the performance of the SSPE to investors; and
- make payments to investors on behalf of the SSPE.

Securitisation

Framework, roles and definitions

Risk management

As noted above, acting as an originator, sponsor or investor in a securitisation transaction may give rise to both credit and market risk. The CRR prescribes how the regulatory capital held in connection with those risks is calculated. RBS may also incur other types of risk in the course of its exposure to securitisation activity.

All such risks are described in the table below, along with details of how they are monitored and managed.

With respect to the non-trading book, Capital Resolution manages the legacy positions mentioned above, including some re-securitisations. RBS Treasury manages securitisations originated by the bank, particularly those used as a means of diversifying its funding sources. CIB conducts transactions with SSPEs and manages trading book securitisation positions, including some re-securitisations.

In the case of junior notes, all of the following risks are likely to be heightened and thus subject to increased scrutiny.

Types of risk	Definition and how the risk may arise	How RBS monitors and manages the risk
Credit risk	<p>The risk of loss arising from the failure of a customer or counterparty (or, in the case of a securitisation, an SSPE) to meet its obligations to settle outstanding amounts.</p> <p>Securitisation may expose RBS to credit risk for any of several reasons.</p> <p>If RBS invests in an SSPE by purchasing or (in the case of a securitisation it has originated) retaining the bonds it issues, conducting derivative transactions with it or lending to it, RBS is exposed to the risk that the SSPE will fail to meet its obligations to settle outstanding amounts to it. This may happen because cash flows generated by the underlying assets are insufficient to repay creditors, including bondholders, derivative counterparties or lenders, or in the event of a third party, such as a bank account provider or derivative counterparty, defaulting on its obligation to the SSPE. In such cases, the SSPE pays principal and interest to creditors in order of seniority, with the most senior paid first.</p> <p>When RBS originates a securitisation transaction, if the securitisation structure does not substantially transfer the economic risks of the underlying assets, including credit risk, to a third party, it is exposed to credit risk on those assets just as it would be if the securitisation had never taken place. Credit risk is heightened if the assets in the SSPE are not diversified by sector, geography or borrower.</p> <p>Capital Resolution holds legacy securitisation assets guaranteed by monoline insurance companies suffering financial distress, which reduces the value to RBS of their guarantees. For more information on unfunded protection and disclosure of monoline exposures, refer to page 230 of the 2015 ARA.</p>	<p>RBS's overall exposure to securitisation is governed by its sector concentration framework. If it retains or purchases bonds issued by an SSPE, conducts derivative transactions with it or lends to it, RBS monitors the performance of the vehicle in part by reviewing information provided by the trustee as well as by rating agencies or other third parties.</p> <p>If the securitisation structure does not substantially transfer credit risk to a third party, RBS manages it as if the securitisation had never taken place. RBS has credit limits in place and monitors SSPE positions with third party bank account providers for own asset securitisations which generate a credit risk exposure for the bank.</p> <p>RBS may seek to mitigate credit risk arising from the purchase (or retention) of bonds issued by an SSPE through the use of unfunded protection, usually credit default swaps, but also guarantees. It hedges the credit risk associated with purchased bonds, which are generally held in the trading book, as appropriate. It does not usually hedge the credit risk associated with retained bonds, which are generally held in the non-trading book.</p>

Securitisation

Framework, roles and definitions

Types of risk	Definition and how the risk may arise	How RBS monitors and manages the risk
Market risk (traded and non-traded)	<p>The risk of losses arising from fluctuations in interest rates, credit spreads, foreign currency rates, equity prices, commodity prices and other factors, such as market-implied volatilities, that may lead to a reduction in earnings, economic value or both. Securitisation may expose RBS to market risk for two major reasons.</p> <p>First, if RBS invests in a securitisation, it is indirectly exposed to the risk of loss due to fluctuations in interest rates, foreign currency rates and other prices. For example, if it purchases notes issued by an SSPE paying interest at a rate other than the rate paid by the assets the SSPE holds, the two rates may respond differently to changes in market interest rates, which may adversely affect the SSPE's ability to meet its obligations and cause RBS to suffer a loss. Similarly, if market interest rates rise, the value of fixed notes issued by an SSPE will fall, which may cause RBS to suffer a loss.</p> <p>If RBS purchases notes issued by an SSPE in a currency other than the currency of the underlying assets, giving rise to the possibility that the cash flows generated by the assets will not be sufficient to repay investors, it may also suffer a loss.</p> <p>Second, if the structure of a securitisation transaction does not substantially transfer the market risk of the underlying assets to a third party, RBS remains exposed to that risk as if the securitisation had never taken place.</p>	RBS manages this risk in accordance with its policy on market risk, both traded and non-traded, including structural interest rate risk. Re-securitisation exposures are subject to individual scrutiny. For further information, refer to pages 231 to 251 of the 2015 ARA.
Liquidity and funding risk	The risk that RBS will be unable to meet its financial obligations when they fall due. RBS originates securitisations to diversify its sources of funding. It also sponsors securitisations and, as sponsor, may provide liquidity facilities to the SSPE. If the SSPE utilises these facilities, RBS will need to fund them, giving rise to the risk that it will not be able to do so.	RBS manages these risks in accordance with its policy on liquidity and funding risk. For further information, refer to pages 160 to 170 of the 2015 ARA.
Legal risk	<p>The risk that RBS will incur losses as a result of the failure of the documentation relating to a securitisation to perform as expected or as a result of investors asserting RBS made inadequate disclosures or conducted inadequate due diligence in relation to the relevant credit exposures. Legal risk is elevated if the parties to the transaction are located in different jurisdictions, as documentation effective in one jurisdiction may not be effective in another. Additional losses may arise as a result of costs incurred by the parties in an effort to address documentary shortcomings.</p> <p>This risk is heightened in the case of re-securitisations, as RBS needs to gather information surrounding each of the original transactions, together with an understanding of their interaction within the re-securitisation.</p>	RBS has specific processes and controls in place designed to ensure adequate due diligence is undertaken and appropriate disclosures are made in relation to the relevant offerings. In relation to documentation, distribution of securities and compliance with relevant laws and regulations, RBS works with experienced internal and external counsel to ensure all reasonable steps are taken to ensure documentation standards are satisfactory and applicable laws and regulations in all relevant jurisdictions are complied with.

Securitisation

Framework, roles and definitions

Types of risk	Definition and how the risk may arise	How RBS monitors and manages the risk
Conduct and regulatory risk	The risk that the behaviour of RBS and its staff towards customers, or in the markets in which it operates, leads to unfair or inappropriate customer outcomes and results in reputational damage, financial loss or both. The damage or loss may be the result of a failure to comply with (or adequately plan for changes to) relevant official sector policy, laws, regulations, or major industry standards, or of failing to meet customers' or regulators' expectations.	Well established policies and supporting processes are in place to ensure timely identification of, and effective responses to, changes in official sector requirements, laws, regulations and major industry standards affecting RBS. This risk falls under the governance of the Mandatory Change Advisory Committee (MCAC), which meets monthly with representatives from all franchises and functions. For further information, refer to pages 173 to 175 of the 2015 ARA.
Reputational risk	The risk of brand damage and/or financial loss arising from a failure to meet stakeholders' expectations of RBS's conduct and performance. If in its capacity as originator, sponsor or investor, RBS fails to meet the expectations of stakeholders, it may be unable to build or sustain relationships with customers, incur regulatory censure or experience reduced access to funding sources.	RBS manages reputational risk in accordance with its reputational risk management framework. For further information, refer to pages 172 to 173 of the 2015 ARA.
Operational risk	The risk of loss resulting from inadequate or failed internal processes, people and systems, or external events.	RBS manages operational risk in accordance with its operational risk management framework. For further information, refer to pages 175 to 178 of the 2015 ARA.

Securitisation

Regulatory treatment

RBS determines the regulatory capital required for exposures related to its securitisation activities in accordance with the CRR. In so doing, with respect to each securitisation transaction, it considers:

- the effectiveness of the securitisation structure in achieving risk transfer; and
- whether the securitisation positions it holds relate to the trading or non-trading book.

In instances where it is an originator, in accordance with the CRR, RBS carries out a significant risk transfer assessment to evaluate whether the securitisation structure effectively transfers the risks associated with the underlying assets to the holders of the securitisation positions.

If significant risk transfer is deemed to have been achieved, RBS need not hold any capital against the underlying assets.

However, if it is deemed not to have been achieved, capital must be held against the underlying assets as if the securitisation had never taken place. In other words, CRR rules governing the calculation of capital held in connection with credit risk, whether non-counterparty or counterparty, and market risk are applied.

As noted earlier, RBS may play any of several roles in respect of securitisations. Of these, three may result in RBS holding securitisation positions in connection with which a capital charge is required: originator; sponsor; or investor.

In the case of securitisation positions related to the trading book, RBS calculates regulatory capital needed for specific and general market risks (refer to pages 231 to 251 of the 2015 ARA). In the case of securitisation positions related to the non-trading book, it calculates regulatory capital needed for credit risk, either non-counterparty or counterparty.

Calculation of risk-weighted exposures

The regulatory framework for securitisation allows RWA calculation using either the STD or the IRB approach. The choice of approach depends on the credit framework adopted by the firm under Pillar 1 for the underlying portfolio of securitised exposures. RBS holds securitisation positions subject to both approaches, as shown in Table SEC 1.

RBS categorises securitised exposures according to risk-weight bands when calculating RWAs. Under the CRR, unrated positions under both the STD and IRB approaches are classified under the highest risk-weight band: 1,250%. Risk-weight bands are shown in Tables SEC 2 and SEC 3.

RBS uses the ratings based approach (RBA) to assess rated positions. It recognises ratings issued by Standard & Poor's, Moody's, Fitch or DBRS when assessing debt issued by SSPEs under the RBA. Most transactions are rated by two or more of these rating agencies, which are formally classified as external credit assessment institutions.

For the legacy ABCP conduit programmes it sponsors, RBS uses the internal assessment approach (IAA). Under the IAA, it applies published rating agency methodologies to the individual transactions funded through the programme, assigning internal credit grades and implied ratings, which it then uses to determine capital requirements for the facilities relating to each transaction. At programme level, the commercial paper issued by the conduits receives a public short-term rating, which is determined primarily by RBS's rating as sponsor.

Summary of accounting policies including derecognition

Accounting assessment takes place at the time of closing a transaction and under accounting rules, depends on a securitisation's residual risk. By contrast, significant risk transfer assessments take place at regular intervals. The resulting capital calculations can differ depending on the change in residual risk over time.

Recognition of sales

Securitisation vehicles are assessed for consolidation in accordance with RBS's published accounting policy *Basis of Consolidation* (refer to page 268 of the 2015 ARA). A securitisation is treated as a sale if the securitised assets are derecognised from the consolidated balance sheet in accordance with RBS's published accounting policy *Derecognition* (refer to page 274 of the 2015 ARA).

RBS applies its accounting policies *Provisions; Loan commitments; and Financial guarantee contracts* (set out on pages 271 and 274 of the 2015 ARA) to contractual commitments, such as liquidity lines, that could require it to provide financial support for securitised assets.

Key assumptions for valuing securitisation positions

Securitisation positions are valued using external information, such as market data for recent transactions, price information from third-party managers and advisors, and asset performance data provided to all bond holders at interest payment dates.

Synthetic securitisations

Synthetic securitisations are assessed using the same approach as non-synthetic securitisations. Any derivatives are treated in accordance with RBS's published accounting policy *Derivatives and hedging* (refer to page 275 of the 2015 ARA).

Assets awaiting securitisation

Financial assets are valued using RBS's accounting policy for financial assets (refer to page 272 of the 2015 ARA). At both 31 December 2015 and 31 December 2014, no assets were categorised as awaiting securitisation.

Securitisation

Implicit support

RBS has not provided support to any securitisation transactions beyond its contractual obligations.

Securitisation and re-securitisation exposures

Additional information detailing accounting policies, and treatment of securitisations and re-securitisations can be found on page 330 of the 2015 ARA.

Types of transactions

In the role of originator, RBS securitises a variety of assets which typically include the following:

Residential mortgages and commercial real estate loans - RBS securitises residential mortgages and commercial real estate loans that it originates itself. Mortgages and real estate loans are assigned to SSPEs, which fund themselves principally through the issue of floating rate notes.

Credit card receivables - In the UK, RBS securitises credit card receivables that it originates itself. Noteholders have a proportionate interest in a pool of credit card receivables that are assigned by RBS to a receivables trust.

Other loan types - RBS selectively securitises other loans that it originates, principally those to corporates and small and medium-sized enterprises.

SSPEs used by RBS

SSPEs used by RBS hold either the securitised assets themselves (traditional securitisations) or a package of other assets economically equivalent to those assets (synthetic securitisations).

At 31 December 2015, RBS sponsored one remaining multi-seller commercial paper conduit programme, Thames Asset Global Securitization (TAGS). RBS provides programme-wide credit enhancement and liquidity facilities to TAGS. During 2015, TAGS issued no commercial paper to external parties.

During 2015, the George Street Finance, Abel Tasman and Orchid Funding Corporation programmes were wound down.

The transactions in which RBS acts as a swap counterparty, has originated all the assets and continues to administer the associated SSPEs include the following:

- Arran (cards master trust);
- Arran (UK residential mortgages SSPEs);
- Celtic (Irish residential mortgages SSPEs);
- Epic (commercial real estate SSPEs); and
- Talisman (commercial real estate SSPEs).

All of the securities issued by the Arran cards master trust have been redeemed in full.

Notes on the following tables

Tables SEC 1 to SEC 4 show total securitisation positions, as discussed under Regulatory treatment of securitisation on page 76. The exposures included those retained from RBS's own securitised assets, investments in SSPE notes, credit lines to SSPEs and derivative transactions with SSPEs.

The term 'exposure amount' used in the following tables refers to EAD, which is calculated according to CRR rules.

Exposure amount is shown along with other measures in Tables SEC 1 and SEC 2. Tables SEC 3 and SEC 4 show exposure amounts exclusively. Short positions are excluded from these tables.

RBS did not securitise any of its own assets during 2015, compared to £1.5 billion in 2014.

Securitisation

Securitisation exposures: retained and purchased

SEC 1: Exposure, RWAs and minimum capital requirements by regulatory approach

The following table shows exposures, RWAs, minimum capital requirements and capital deductions calculated under IRB and STD approaches.

	Aggregate amounts of securitisation positions retained or purchased				Of which, re-securitisation positions retained or purchased			
	Exposure amount £m	RWAs £m	Minimum capital requirements £m	Of which deduction from capital £m	Exposure amount £m	RWAs £m	Minimum capital requirements £m	Of which deduction from capital £m
2015 - non-trading book								
IRB approach	10,242	3,414	273	—	17	4	—	—
2014 - non-trading book								
IRB approach	17,416	5,624	450	—	189	202	16	—
Standardised approach	1,358	3,204	256	—	50	20	2	—
	18,774	8,828	706	—	239	222	18	—
2015 - trading book								
IRB approach	390	1,597	128	—	60	511	41	—
Standardised approach	1	11	1	—	1	10	1	—
	391	1,608	129	—	61	521	42	—
2014 - trading book								
IRB approach	1,121	2,713	217	—	226	671	54	—
Standardised approach	105	337	27	—	17	206	16	—
	1,226	3,050	244	—	243	877	70	—

Key points

Overview

- Total exposure amounts for retained or purchased securitisation and re-securitisation positions in both the non-trading and trading books continued to decline in 2015 in line with RBS's risk reduction strategy.
- The decline was evident in the majority of risk-weight bands, as shown in the following tables. One notable exception was in the non-trading book, where exposures rose in the $> 20\% \leq 50\%$ band, reflecting positions with an upgraded agency rating resulting in an improved risk weighting.

Non-trading book - IRB approach

- The material reduction in exposure was primarily driven by the wind-down of US conduit positions and run-down of assets in line with Capital Resolution strategy.
- The total exposure amount includes EAD of £1.6 billion (2014 - £2.2 billion) and RWAs of £0.6 billion (2014 - £0.8 billion) related to counterparty credit risk associated with derivative trades. Within this, residential mortgages account for EAD of £1.0 billion (2014 - £1.3 billion) and RWAs of £0.3 billion (2014 - £0.3 billion). The relevant market risk is captured in the trading book.

Non-trading book - STD approach

- The year-on-year decline in exposure from £1.4 billion to zero reflects the disposal of Citizens.

Trading book - STD approach

- The overall reduction in exposure was driven by the exit from US asset-backed product trading, reflected in the decrease in residential mortgages exposure in Tables SEC 3 and SEC 4.
- Improved market conditions and opportunities to unwind positions in Capital Resolution and the reduction of the CIB portfolio also contributed to the decrease in exposure, reflected in declines in various exposure classes.

Securitisation

Securitisation exposures: retained and purchased

SEC 2: Exposure and minimum capital requirements by regulatory approach and risk-weightings

The following table shows exposures and minimum capital requirements according to risk-weight bands. Unrated positions are included within the 1,250% band.

Risk-weight bands	Aggregate amounts of securitisation positions retained or purchased						Of which, re-securitisation positions retained or purchased					
	Exposure amount			Minimum capital requirements			Exposure amount			Minimum capital requirements		
	STD £m	IRB £m	Total £m	STD £m	IRB £m	Total £m	STD £m	IRB £m	Total £m	STD £m	IRB £m	Total £m
2015 - non-trading book												
≤ 10%	—	6,334	6,334	—	41	41	—	—	—	—	—	—
> 10% ≤ 20%	—	2,112	2,112	—	27	27	—	16	16	—	—	—
> 20% ≤ 50%	—	875	875	—	29	29	—	—	—	—	—	—
> 50% ≤ 100%	—	544	544	—	28	28	—	—	—	—	—	—
> 100% ≤ 350%	—	1	1	—	—	—	—	—	—	—	—	—
> 350% ≤ 650%	—	249	249	—	72	72	—	1	1	—	—	—
1,250%	—	127	127	—	76	76	—	—	—	—	—	—
	—	10,242	10,242	—	273	273	—	17	17	—	—	—
2014 - non-trading book												
≤ 10%	—	11,789	11,789	—	74	74	—	—	—	—	—	—
> 10% ≤ 20%	900	2,891	3,791	14	38	52	—	13	13	—	—	—
> 20% ≤ 50%	52	804	856	2	27	29	50	36	86	2	1	3
> 50% ≤ 100%	157	1,305	1,462	8	77	85	—	47	47	—	2	2
> 100% ≤ 350%	24	126	150	7	26	33	—	—	—	—	—	—
> 350% ≤ 650%	—	292	292	—	89	89	—	1	1	—	—	—
1,250%	225	209	434	225	119	344	—	92	92	—	13	13
	1,358	17,416	18,774	256	450	706	50	189	239	2	16	18
2015 - trading book												
≤ 10%	—	127	127	—	1	1	—	—	—	—	—	—
> 10% ≤ 20%	—	23	23	—	—	—	—	—	—	—	—	—
> 20% ≤ 50%	—	36	36	—	1	1	—	18	18	—	1	1
> 50% ≤ 100%	—	57	57	—	4	4	—	2	2	—	—	—
> 100% ≤ 350%	—	9	9	—	2	2	—	—	—	—	—	—
> 350% ≤ 650%	—	39	39	—	16	16	—	4	4	—	2	2
1,250%	1	99	100	1	104	105	1	36	37	1	38	39
	1	390	391	1	128	129	1	60	61	1	41	42
2014 - trading book												
≤ 10%	—	214	214	—	1	1	—	—	—	—	—	—
> 10% ≤ 20%	67	175	242	1	2	3	—	21	21	—	—	—
> 20% ≤ 50%	12	175	187	1	6	7	—	82	82	—	2	2
> 50% ≤ 100%	1	308	309	—	20	20	1	68	69	—	5	5
> 100% ≤ 350%	—	18	18	—	4	4	—	7	7	—	2	2
> 350% ≤ 650%	—	52	52	—	18	18	—	—	—	—	—	—
1,250%	25	179	204	25	166	191	16	48	64	16	45	61
	105	1,121	1,226	27	217	244	17	226	243	16	54	70

Securitisation

Securitisation exposures: retained and purchased

SEC 3: Exposure by risk-weightings by underlying exposure type

The following table shows exposures by underlying exposure type and risk-weight bands. Unrated positions are included within the 1,250% band.

Risk-weight bands	Residential mortgages £m	Commercial mortgages £m	Credit card receivables £m	Leasing £m	Loans to corporates or SMEs £m						Consumer loans £m	Trade receivables £m	Auto receivables £m	Re- securitisation £m	Other assets £m	Total £m
2015 - non-trading book																
≤ 10%	3,065	67	353	337	—	118	72	2,142	—	—	180	6,334				
> 10% ≤ 20%	359	333	—	291	—	273	—	749	16	91	2,112					
> 20% ≤ 50%	165	261	—	53	8	—	—	—	—	388	875					
> 50% ≤ 100%	212	10	—	—	—	8	—	—	—	314	544					
> 100% ≤ 350%	—	—	—	—	—	—	—	—	—	1	1					
> 350% ≤ 650%	52	6	—	—	—	—	—	—	1	190	249					
1,250%	29	15	—	75	2	—	—	—	—	6	127					
	3,882	692	353	756	10	399	72	2,891	17	1,170	10,242					
2014 - non-trading book																
≤ 10%	5,527	311	882	192	43	1,055	158	3,454	—	167	11,789					
> 10% ≤ 20%	1,686	350	216	406	56	259	—	712	11	95	3,791					
> 20% ≤ 50%	63	243	—	145	—	—	—	—	86	319	856					
> 50% ≤ 100%	477	294	—	—	—	8	7	—	47	629	1,462					
> 100% ≤ 350%	24	121	—	—	—	—	—	—	—	5	150					
> 350% ≤ 650%	91	199	—	—	—	—	—	—	1	1	292					
1,250%	259	38	—	39	—	—	—	—	92	6	434					
	8,127	1,556	1,098	782	99	1,322	165	4,166	237	1,222	18,774					
2015 - trading book																
≤ 10%	17	—	5	—	89	3	—	13	—	—	127					
> 10% ≤ 20%	5	—	—	—	15	—	—	3	—	—	23					
> 20% ≤ 50%	3	11	—	—	4	—	—	—	18	—	36					
> 50% ≤ 100%	1	43	—	—	9	—	—	—	2	2	57					
> 100% ≤ 350%	5	—	—	—	4	—	—	—	—	—	9					
> 350% ≤ 650%	—	7	—	—	28	—	—	—	4	—	39					
1,250%	23	19	—	—	18	1	—	—	37	2	100					
	54	80	5	—	167	4	—	16	61	4	391					
2014 - trading book																
≤ 10%	95	1	—	—	118	—	—	—	—	—	214					
> 10% ≤ 20%	120	45	—	—	33	—	—	—	21	23	242					
> 20% ≤ 50%	19	54	—	—	8	—	—	—	81	25	187					
> 50% ≤ 100%	44	178	—	—	9	2	—	—	69	7	309					
> 100% ≤ 350%	2	2	—	—	6	—	—	—	7	1	18					
> 350% ≤ 650%	20	19	—	—	10	—	—	—	—	3	52					
1,250%	51	42	—	—	36	5	—	—	65	5	204					
	351	341	—	—	220	7	—	—	243	64	1,226					

Note:

(1) In the non-trading book, around 82% of the Other assets relates to securitisation of receivables relating to entire revenue stream from public houses.

Securitisation

Securitisation exposures: retained and purchased

SEC 4: Exposures by role, by on and off-balance sheet

The following table shows underlying exposures by:

- The role of RBS;
- On and off-balance sheet categories; and
- Underlying exposure type.

The off-balance sheet category represents the part of a liquidity facility that has not been utilised (undrawn) and derivative exposures.

Underlying exposure type	As originator		As sponsor		As investor		Total	
	On-balance sheet £m	Off-balance sheet £m	On-balance sheet £m	Off-balance sheet £m	On-balance sheet (1) £m	Off-balance sheet £m	On-balance sheet £m	Off-balance sheet £m
2015 - non-trading book								
Residential mortgages	—	—	381	80	2,484	937	2,865	1,017
Commercial mortgages	10	—	—	—	440	242	450	242
Credit card receivables	—	—	—	—	16	337	16	337
Leasing	—	—	—	—	655	101	655	101
Loans to corporates or SMEs	2	—	—	—	8	—	10	—
Consumer loans	—	—	80	2	21	296	101	298
Trade receivables	—	—	—	—	70	2	70	2
Auto receivables	—	—	—	—	2,132	759	2,132	759
Re-securitisations	—	—	—	—	17	—	17	—
Other assets	—	—	24	12	663	471	687	483
	12	—	485	94	6,506	3,145	7,003	3,239
2014 - non-trading book								
Residential mortgages	—	—	465	90	5,682	1,890	6,147	1,980
Commercial mortgages	29	—	—	—	1,120	407	1,149	407
Credit card receivables	—	—	—	—	471	627	471	627
Leasing	—	—	—	—	573	209	573	209
Loans to corporates or SMEs	2	—	—	—	38	59	40	59
Consumer loans	—	—	64	75	613	570	677	645
Trade receivables	—	—	—	—	93	72	93	72
Auto receivables	—	—	—	—	3,119	1,047	3,119	1,047
Re-securitisations	9	—	—	—	226	2	235	2
Other assets	—	—	41	1	554	626	595	627
	40	—	570	166	12,489	5,509	13,099	5,675
2015 - trading book								
Residential mortgages	—	—	—	—	49	5	49	5
Commercial mortgages	—	—	—	—	80	—	80	—
Credit card receivables	—	—	—	—	5	—	5	—
Loans to corporates or SMEs	2	—	—	—	132	33	134	33
Consumer loans	—	—	—	—	4	—	4	—
Auto receivables	—	—	—	—	16	—	16	—
Re-securitisations	1	—	—	—	59	1	60	1
Other assets	—	—	—	—	4	—	4	—
	3	—	—	—	349	39	352	39
2014 - trading book								
Residential mortgages	—	—	—	—	309	42	309	42
Commercial mortgages	2	—	—	—	338	1	340	1
Loans to corporates or SMEs	3	—	—	—	149	68	152	68
Consumer loans	—	—	—	—	7	—	7	—
Re-securitisations	16	—	—	—	134	93	150	93
Other assets	—	—	—	—	64	—	64	—
	21	—	—	—	1,001	204	1,022	204

Note:

(1) The on-balance sheet amount of £7.0 billion above includes loans and liquidity facilities to SSPEs and excludes covered bonds, thereby differing from £5.4 billion of asset-backed securities on the balance sheet.

Securitisation

Securitisation exposures: retained and purchased

SEC 5: Exposures subject to market risk capital requirements

The following table shows trading book exposures subject to securitisation specific market risk capital regulations.

	Exposure amount Traditional £m	Minimum capital requirement (1) Traditional £m
Underlying portfolio		
2015 - trading book		
Residential mortgages	54	26
Commercial mortgages	80	26
Credit card receivables	5	—
Loans to corporates or SMEs	167	32
Consumer loans	4	1
Auto receivables	16	—
Re-securitisations	61	42
Other assets	4	2
	391	129
2014 - trading book		
Residential mortgages	351	60
Commercial mortgages	341	61
Loans to corporate or SMEs	220	39
Consumer loans	7	5
Re-securitisations	243	71
Other assets	64	8
	1,226	244

Note:

(1) Excludes short positions. The minimum capital requirement totals in this table differ from those in the trading book securitisations table in the Market risk section of the 2015 ARA, which includes both long and short positions.

Securitisation

Securitisation outstanding amounts

SEC 6: Securitisation positions retained from origination and sponsorship - outstanding and past due amounts

The following table shows outstanding and related past due exposures pertaining to RBS's retained positions where RBS was the originator or sponsor. Where the originated securitisation was through a joint venture or through similar arrangements, the entire asset pool information is also disclosed separately below.

	Total	Non-trading exposures										Trading exposures		Memorandum: Entire asset pool	
		Of which		Originator		Sponsor		Of which		Originator		Of which		Exposures	Of which
		Exposures £m	past due £m	Traditional £m	Synthetic £m	Traditional £m	Total £m	past due £m	Traditional £m	Synthetic £m	Total £m	past due £m	Exposures £m	past due £m	
2015															
Residential mortgages	391	—	—	—	—	391	391	—	—	—	—	—	—	—	
Commercial mortgages	975	—	505	—	—	505	505	—	470	—	470	—	975	—	
Loans to corporates or SMEs	541	2	165	—	—	37	202	—	339	—	339	2	504	2	
Consumer loans	150	—	—	—	—	150	150	—	—	—	—	—	—	—	
Other assets	12	—	—	—	—	12	12	—	—	—	—	—	—	—	
	2,069	2	670	—	—	590	1,260	—	809	—	809	2	1,479	2	
2014															
Residential mortgages	603	12	—	—	—	524	524	—	79	—	79	12	79	12	
Commercial mortgages	4,145	129	1,064	582	—	1,646	—	2,499	—	2,499	129	8,544	235	—	
Loans to corporates or SMEs	41	—	—	—	—	41	41	—	—	—	—	—	—	—	
Consumer loans	97	—	—	—	—	97	97	—	—	—	—	—	—	—	
Resecuritisations	4,183	686	1,138	—	—	1,138	13	3,045	—	3,045	673	5,619	689	—	
Other assets	814	21	141	—	—	29	170	1	644	—	644	20	1,607	46	
	9,883	848	2,343	582	691	3,616	14	6,267	—	6,267	834	15,849	982	—	

Notes:

- (1) For securitisations where RBS acted as investor, as disclosed in Table SEC 4, information on underlying assets is not readily available and therefore not included in the table above.
- (2) Outstanding and related past due exposures are based on pool amounts from investor reports.
- (3) None of the retained positions at 31 December 2015 relating to originated securitisations were part of a joint venture. Therefore, the outstanding amount for the entire asset pool is the same as the RBS share.

Key points

- Exposures declined, primarily due to the exit strategy and portfolio movements.
- No losses were recorded on past due exposures recognised during 2014 or 2015.

Appendix 1 – Transitional own funds (CRR Delegated Act Template)

	CET1 capital: instruments and reserves	RBS			RBS plc 2015 £m	NWB Plc 2015 £m	UBIL 2015 £m
		2015 £m	CRR prescribed residual amounts £m	Final CRD IV £m			
1	Capital instruments and the related share premium accounts <i>of which: ordinary shares</i>	33,745	—	33,745	31,995	3,904	3,506
2	Retained earnings	11,625	—	11,625	6,609	1,678	2,638
3	Accumulated other comprehensive income (and other reserves)	(4,381)	—	(4,381)	18,462	8,657	1,240
4	Public sector capital injections grandfathered until 1 January 2018	20,095	—	20,095	678	668	21
5a	Independently reviewed interim net profits net of any foreseeable charge or dividend	—	—	—	—	—	839
6	CET1 capital before regulatory adjustments	49,459	—	49,459	51,135	13,229	5,606

Appendix 1 – Transitional own funds (CRR Delegated Act Template)

		RBSG 2015 £m	CRR prescribed residual amounts £m	Final CRD IV £m	RBS plc 2015 £m	NWB plc 2015 £m	UBIL 2015 £m
7	Additional value adjustments	(381)	—	(381)	(349)	(1)	—
8	Intangible assets (net of related tax liability)	(6,566)	—	(6,566)	(544)	(498)	—
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	(1,110)	—	(1,110)	(252)	(622)	(210)
11	Fair value reserves related to gains or losses on cash flow hedges	(458)	—	(458)	(286)	1	—
12	Negative amounts resulting from the calculation of expected loss amounts	(1,035)	—	(1,035)	(395)	(703)	(22)
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(104)	—	(104)	17	—	—
15	Defined-benefit pension fund assets	(161)	—	(161)	(138)	—	—
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	—	—	—	(15,680)	(2,413)	—
22	Amount exceeding the 17.65% threshold (negative amount)	—	—	—	(3,170)	(1,326)	—
23	<i>Of which: direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities</i>	—	—	—	(2,768)	(689)	—
25	<i>Of which: deferred tax assets arising from temporary differences</i>	—	—	—	(402)	(637)	—
25a	Losses for the current financial period (negative amount)	(1,979)	—	(1,979)	(1,075)	(1,415)	—
26	Regulatory adjustments applied to CET1 in respect of amounts subject to pre-CRR treatment	(35)	(22)	(57)	3,153	902	323
26a	<i>Regulatory adjustments relating to unrealised gains and losses pursuant to articles 467 and 468 of which: unrealised gains on available-for-sale equities of which: reserves arising from revaluation of property</i>	—	—	—	—	—	—
26b	<i>Amount to be deducted from or added to CET1 capital with regard to additional filters and deductions required pre CRR</i>	(35)	(22)	(57)	3,153	902	323
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	—	—	—	—	—	(7)
28	Total regulatory adjustments to CET1	(11,829)	(22)	(11,851)	(18,719)	(6,075)	84
29	CET1 capital	37,630	(22)	37,608	32,416	7,154	5,690
	AT1 capital: instruments						
30	Capital instruments and the related share premium accounts	2,007	—	2,007	—	—	—
31	<i>of which: classified as equity under applicable accounting standards</i>	2,007	—	2,007	—	—	—
32	<i>of which: classified as debt under applicable accounting standards</i>	—	—	—	—	—	—
33	Amount of qualifying items referred to in Article 484(4) and the related share premium accounts subject to phase out from AT1	5,092	(5,092)	—	3,503	204	—
34	Qualifying tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5 CET1) issued by subsidiaries and held by third parties	1,627	(1,627)	—	—	—	—
35	<i>of which: instruments issued by subsidiaries subject to phase out</i>	1,627	(1,627)	—	—	—	—
36	AT1 capital before regulatory adjustments	8,726	(6,719)	2,007	3,503	204	—

Appendix 1 – Transitional own funds (CRR Delegated Act Template)

	RBS 2015 £m	CRR prescribed residual amounts £m	Final CRD IV £m	RBS plc 2015 £m	NWB plc 2015 £m	UBIL 2015 £m
AT1 capital: regulatory adjustments						
40 Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions)	—	—	—	(1,175)	(187)	—
41 (-) Actual or contingent obligations to purchase own AT1 instruments	(10)	—	(10)	(10)	—	—
41b Residual amounts deducted from AT1 capital with regard to deduction from Tier 2 (T2) capital during the transitional period <i>of which: Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities</i>	—	—	—	—	—	—
43 Total regulatory adjustments to AT1 capital	(10)	—	(10)	(1,185)	(187)	—
44 AT1 capital	8,716	(6,719)	1,997	2,318	17	—
45 Tier 1 capital (T1 = CET1 + AT1)	46,346	(6,741)	39,605	34,734	7,171	5,690
T2 capital: instruments and provisions						
46 Capital instruments and the related share premium accounts	5,755	—	5,755	17,271	4,200	438
47 Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from T2	520	(520)	—	1,770	858	54
48 Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in CET1 or AT1) issued by subsidiaries and held by third parties <i>of which: instruments issued by subsidiaries subject to phase out</i>	7,354	(5,097)	2,257	—	—	—
49	4,188	(4,188)	—	—	—	—
50 Credit risk adjustments	—	—	—	—	—	—
51 T2 capital before regulatory adjustments	13,629	(5,617)	8,012	19,041	5,058	492
T2 capital: regulatory adjustments						
55 Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions)	—	—	—	(2,432)	(92)	—
56a (-) Actual or contingent obligations to purchase own AT1 instruments	(10)	—	(10)	(2)	—	—
56b Residual amounts deducted from T2 capital with regard to deduction from AT1 capital during the transitional period	—	—	—	—	—	(7)
56c Amount to be deducted from or added to T2 capital with regard to additional filters and deductions required pre CRR.	—	—	—	—	—	—
57 Total regulatory adjustments to T2 capital	(10)	—	(10)	(2,434)	(92)	(7)
58 T2 capital	13,619	(5,617)	8,002	16,607	4,966	485
59 Total capital (TC = T1 + T2)	59,965	(12,358)	47,607	51,341	12,137	6,175
60 Total risk-weighted assets	242,630	—	242,630	202,901	61,755	19,229

Appendix 1 – Transitional own funds (CRR Delegated Act Template)

		RBS		RBS plc	NWB plc	UBIL
		2015 £m	CRR prescribed residual amounts £m	Final CRD IV £m	2015 £m	2015 £m
Capital ratios and buffers						
61	CET1 (as a percentage of risk exposure amount)	15.5%	—	15.5%	16.0%	11.6%
62	T1 (as a percentage of risk exposure amount)	19.1%	—	16.3%	17.1%	11.6%
63	Total capital (as a percentage of risk exposure amount)	24.7%	—	19.6%	25.3%	19.7%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1)(a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or)-SII buffer), expressed as a percentage of risk exposure amount)	—	—	—	—	—
65	of which: capital conservation buffer requirement	—	—	—	—	—
66	of which: counter cyclical buffer requirement	—	—	—	—	—
67	of which: systemic risk buffer requirement	—	—	—	—	—
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	—	—	—	—	—
68	CET1 available to meet buffers	11.0%	—	11.0%	11.5%	7.1%
Amounts below the threshold deduction						
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	1,651	—	1,651	837	10
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	450	—	450	4,809	999
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability)	730	—	730	699	924
Available caps on the inclusion of provisions in T2						
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	—	—	—	—	—
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	475	—	475	1,108	200
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings based approach (prior to the application of the cap)	—	—	—	—	—
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	771	—	771	347	235
Capital instruments subject to phase-out arrangements (only applicable between 1 January 2013 and 1 January 2022)						
82	Current cap on AT1 instruments subject to phase out arrangements	6,719	(6,719)	—	3,504	204
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	1,679	(1,679)	—	168	101
84	Current cap on T2 instruments subject to phase out arrangements	4,708	(4,708)	—	1,948	858
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	123	(123)	—	—	246

Appendix 2 – Leverage exposures (CRR Delegated Act Transitional Basis)

		RBS £m	RBS plc £m	NWB Plc £m	UBIL £m
LRSum: Summary reconciliation of accounting assets and leverage ratio exposure					
1	Total assets as per published financial statements	815,408	674,708	225,509	22,631
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	6,990	—	—	(175)
4	Adjustment for derivative financial instruments	(182,985)	(183,273)	(1,256)	269
5	Adjustments for securities financing transactions (SFTs)	5,125	5,162	-	-
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	63,464	46,189	9,867	1,021
EU-6a	Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013	—	(24,444)	(76,277)	—
7	Other adjustments	(5,519)	(15,707)	(4,789)	(37)
8	Total leverage ratio exposure	702,483	502,635	153,054	23,709
LRCom: Leverage ratio common disclosure					
On-balance sheet exposures (excluding derivatives and SFTs)					
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	524,123	381,131	223,424	21,946
2	Asset amounts deducted in determining Tier 1 capital	(9,698)	(18,829)	(4,789)	(37)
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	514,425	362,302	218,635	21,909
Derivative exposures					
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	55,193	56,609	634	483
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	76,739	77,364	196	296
7	Deductions of receivable assets for cash variation margin provided in derivatives transactions	(55,724)	(55,598)	(1)	—
8	Exempted CCP leg of client-cleared trade exposures	(1,173)	(567)	—	—
9	Adjusted effective notional amount of written credit derivatives	4,524	4,521	—	—
11	Total derivative exposures	79,559	82,329	829	779
Securities financing transaction exposures					
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	39,910	31,097	—	—
14	Counterparty credit risk exposures for SFT assets	5,125	5,162	—	—
16	Total securities financing transaction exposures	45,035	36,259	—	—
Other off-balance sheet exposures					
17	Off- balance sheet exposures at gross notional amount	198,895	131,833	44,576	4,226
18	Adjustments for conversion to credit equivalent amounts	(135,431)	(85,644)	(34,709)	(3,205)
19	Other off-balance sheet exposures	63,464	46,189	9,867	1,021
EU-19a	Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet)	—	(24,444)	(76,277)	—
Capital and total exposures					
20	Tier 1 capital	46,346	34,734	7,171	5,690
21	Total leverage ratio exposure	702,483	502,635	153,054	23,709
Leverage ratio					
		6.6%	6.9%	4.7%	24.0%

Appendix 2 – Leverage exposures (CRR Delegated Act Transitional Basis)

	Leverage ratio exposures			
	RBS £m	RBS plc £m	NWB plc £m	UBIL £m
<u>LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)</u>				
EU-1 Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	514,425	362,302	218,635	21,909
EU-2 Trading book exposures	69,559	61,672	185	—
EU-3 Banking book exposures, of which:	444,866	300,630	218,450	21,909
EU-4 Covered bonds	1,367	1,273	—	—
EU-5 Exposures treated as sovereigns	116,877	110,733	291	2,516
EU-6 Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	6,955	4,992	1,472	343
EU-7 Institutions	5,004	31,657	78,965	1,216
EU-8 Secured by mortgages of immovable properties	46,244	15,210	17,129	1,452
EU-9 Retail exposures	141,340	33,932	94,129	9,998
EU-10 Corporate	101,437	80,923	21,338	1,565
EU-11 Exposures in default	15,554	5,232	3,761	4,387
EU-12 Other exposures (e.g. equity, securitisations, and non-credit obligation assets)	10,088	16,678	1,365	432

Appendix 3 – Asset encumbrance

RBS's primary funding source is its customer deposit base, primarily built through its retail and commercial franchises in the UK, Ireland and the US. These deposits form a stable base which fully funds RBS's customer lending activities.

RBS evaluates the extent to which assets can be financed in a secured form (encumbrance) but certain asset types lend themselves more readily to encumbrance. The typical characteristics that support encumbrance are an ability to pledge those assets to another counterparty or entity through operation of law without necessarily requiring prior notification, homogeneity, predictable and measurable cash flows, and a consistent and uniform underwriting and collection process. Retail assets including residential mortgages, credit card receivables and personal loans display many of these features.

RBS categorises its assets into three broad groups; assets that are:

- Already encumbered and used to support funding currently in place via own asset securitisations, covered bonds and repos.
- Not currently encumbered. In this category, RBS has in place an enablement programme which seeks to identify assets which are capable of being encumbered and to identify the actions to facilitate such encumbrance whilst not impacting customer relationships or servicing.

Encumbered and unencumbered assets at 31 December 2015, based on the requirements in Part Eight of CRR and related Guideline issued by the European Banking Authority (EBA) in June 2014, are set out below.

EBA asset encumbrance

	Carrying amount of encumbered assets £m	Fair value of encumbered assets £m	Carrying amount of unencumbered assets £m	Fair value of unencumbered assets £m
Assets				
2015				
Equity instruments	1,582	1,582	2,248	2,208
Debt securities	32,702	32,688	49,438	49,471
Other assets	67,189	—	833,265	—
Assets of the reporting institution	<u>101,473</u>		<u>884,951</u>	
2014				
Equity instruments	2,883	2,883	2,816	2,816
Debt securities	32,621	32,614	54,996	54,943
Other assets	74,579	—	890,466	—
Assets of the reporting institution	<u>110,083</u>		<u>948,278</u>	
Collateral received				
2015				
Equity instruments		2,291		140
Debt securities		79,348		9,456
Collateral received by the reporting institution		<u>81,639</u>		<u>9,596</u>
2014				
Equity instruments		4,901		—
Debt securities		90,703		4,180
Collateral received by the reporting institution		<u>95,604</u>		<u>4,180</u>
Sources of encumbrance				
2015				
Carrying amount of selected financial liabilities		113,191		121,217
Other sources of encumbrance		<u>56,173</u>		<u>61,895</u>
2014				
Carrying amount of selected financial liabilities		124,846		134,547
Other sources of encumbrance		<u>64,280</u>		<u>71,141</u>

Appendix 4 – CRR roadmap

For tables included in this roadmap, also refer to related key points.

CRR ref	High-level summary	Compliance reference
Scope of disclosure requirements		
431 (1)	Requirement to publish Pillar 3 disclosures.	RBS publishes Pillar 3 disclosures.
431 (2)	Firms with permission to use specific operational risk methodologies must disclose operational risk information.	2015 ARA; Capital and risk management- Operational risk page 177 - 179
431 (3)	Institution must have a policy covering frequency of disclosures. Their verification, comprehensiveness and appropriateness.	RBS has an appropriate Pillar 3 disclosure policy.
431 (4)	Explanation of ratings decision upon request.	2015 ARA; Governance-Corporate governance- Outcomes of the 2015 performance evaluation page 45 & 2015 ARA; Capital and risk management-Risk assessment page 190
Non-material, proprietary or confidential information		
432 (1)	Institutions may omit information that is not material if certain conditions are respected.	RBS complies with all relevant disclosure requirements.
432 (2)	Institutions may omit information that is proprietary or confidential if certain conditions are respected.	RBS does not omit any information on the grounds that it may be proprietary or confidential.
432 (3)	Where 432 (1) and (2) apply this must be stated in the disclosures, and more general information must be disclosed.	Not applicable
432 (4)	Use of 432 (1) or (2) is without prejudice to scope of liability for failure to disclose material information.	Not applicable
Frequency of disclosure		
433	Disclosures must be published once a year at a minimum, and more frequently if necessary.	Required disclosures are published annually at a minimum. Disclosures are published as follows: Capital, leverage and selected credit risk disclosures quarterly in interim management statements (IMSS); credit and market risk disclosures semi-annually in IMSSs and ARA; regulatory credit risk, securitisation and asset encumbrance disclosures annually in Pillar 3 report; country-by-country information annually in Sustainability report; operational risk and remuneration disclosures annually in the ARA.
Means of disclosures		
434 (1)	To include of disclosures in one appropriate medium, or provide clear cross-references.	Most disclosures are contained in the ARA with cross references and additional regulatory credit risk securitisation and asset encumbrance disclosures in this report. Signposting directs the reader to other publications where appropriate.
434 (2)	Disclosures made under other requirements (e.g. accounting) can be used to satisfy Pillar 3 if appropriate.	This reference guide sets out cross references as does Basis of disclosure.
Risk management objectives and policies		
435 (1)	Disclose information on	2015 ARA; Risk overview page 30-31; Governance report- Report of the Board Risk Committee page 55-60 ,2015 ARA; Capital and risk management - Risk overview page 134 - 144; Capital management Page 146 - 150; Business risk page 171; Reputational risk page 173; Conduct risk page 174 - 175 & Operational risk page 176
435 (1) (a)	the strategies and processes to manage those risks	Page 18 and 2015 ARA; Capital and risk management- Credit risk page 182, 184 2015 ARA; Capital and risk management-Market risk page 232 Pages 69-72 & 2015 ARA; 2015 ARA; Capital and risk management-Risk governance page 135 -138
435 (1) (b)	structure and organisation of risk management function	See risk sections covered above under 435 (1) (a)
435 (1) (c)	risk reporting and measurement systems	2015 ARA; Capital and risk management - Risk mitigation sub sections
435 (1) (d)	hedging and mitigating risk - policies and processes	2015 ARA; Governance report-Report of the Board Risk Committee page 55-60
435 (1) (e)	adequacy of risk management arrangements.	As for 435 (1) (e)
435 (1) (f)	concise risk statement approved by the Board.	

Appendix 4 – CRR roadmap

CRR ref	High-level summary	Compliance reference
435 (2)	Information on governance arrangements, including information on Board composition and recruitment, and risk committees.	2015 ARA; Governance report-Our Board page 37-40,2015 ARA-Report of the Group Nominations Committee page 47-48,2015 ARA; Governance report-Report of the Board Risk Committee page 55-60, also refer to the Compliance with CRD IV document on the RBS website; rbs.com/about/board-and-governance.html
435 (2) (a)	Number of directorships held by directors.	2015 ARA; Governance report-Our Board page 37-40
435 (2) (b)	Recruitment policy of the Board, their experience and expertise.	2015 ARA; Governance report-Our Board page 37-40
435 (2) (c)	Policy on diversity of Board membership and results against targets.	2015 ARA; Governance report-Our Board page 37-40
435 (2) (d)	Disclosure of whether a dedicated risk committee is in place, and number of meeting in the year.	2015 ARA; Governance report-Report of the Board Risk Committee page 55-60
435 (2) (e)	Description of information flow risk to Board.	2015 ARA; Capital and risk management - Governance structure page 135
<i>Scope of application</i>		
436 (a)	Name of institution.	Page 5.
436 (b)	Difference in basis of consolidation for accounting and prudential purposes, naming entities that are:	
436 (b) (i)	Fully consolidated;	Page 6, Chart 2
436 (b) (ii)	Proportionally consolidated;	CAP 7
436 (b) (iii)	Deducted from own funds;	CAP 2 key points
436 (b) (iv)	Neither consolidated nor deducted.	
436 (c)	Impediments to transfer of funds between parent and subsidiaries.	There are no such impediments. Refer to page 6
436 (d)	Capital shortfalls in any subsidiaries outside of scope of consolidation.	Entities outside the scope of consolidation are appropriately capitalised.
436 (e)	Making use of articles on derogations from a) prudential requirements or b) liquidity requirements for individual subsidiaries/entities.	RBS makes use of these provisions according to its waiver from the PRA.
<i>Own funds</i>		
437 (1)	Requirements regarding capital resources table.	CAP 1,CAP 2,CAP 6, CAP 8 & Appendix 1 Refer to www.investors.rbs.com for further details on Capital Instruments on instrument-by-instrument basis.
437 (2)	EBA to publish implementation standards for points above	
<i>Capital requirements</i>		
438 (a)	Summary of institution's approach to assessing adequacy of capital levels.	Discussions of capital calculations are contained in each risk type management section (credit, market and operational) and for significant subsidiaries. Discussion on capital planning 2015 ARA; Capital and risk management-Capital management page 145-154
438 (b)	Result of ICAAP on demand from authorities.	RBS has not received this request from its regulator;. 2015 ARA; Capital and risk management - ICAAP page 150
438 (c)	Capital requirement amounts for credit risk for each Standardised approach exposure class.	CAP 4.
438 (d)	Capital requirements amounts for credit risk for each Internal Ratings Based Approach exposure class.	CAP 4
438 (e)	Capital requirements amounts for market risk or settlement risk, or large exposures where they exceed limits.	CAP 5
438 (f)	Capital requirement amounts for operational risk, separately for the basic indicator approach, the Standardised approach, and the advanced measurement approaches as applicable.	RBS uses standardised approach; CAP 2 includes operational risk capital requirements
438 (endnote)	Requirement to disclose specialised lending exposures and equity exposures in the banking book falling under the simple risk weight approach.	Corporate exposures subject to the slotting approach; CR 19.Equity exposures under the Simple approach; CR 22

Appendix 4 – CRR roadmap

CRR ref	High-level summary	Compliance reference
Exposure to counterparty credit risk (CCR)		
439 (a)	Description of process to assign internal capital and credit limits to CCR exposures.	Page 69-72
439 (b)	Discussion of process to secure collateral and establishing reserves.	Page 69-70
439 (c)	Discussion of management of wrong-way exposures.	Page 70
439 (d)	Disclosure of collateral to be provided (outflows) in the event of a ratings downgrade.	Page 70 & 2015 ARA; Additional Information - Risk factors – borrowing costs page 400-401
439 (e)	Derivation of net derivative credit exposure.	CR 33; ARA – Capital and management - Balance sheet analysis – Derivatives page 229-230
439 (f)	Exposure values for mark-to-market, original exposure, standardised and internal model methods.	CR 31:
439 (g)	Notional value of credit derivative hedges and current credit exposure by type of exposure.	As for 439 (f)
439 (h)	Notional amounts of credit derivative transactions for own credit, intermediation, bought and sold, by product type.	As for 439 (f)
439 (i)	Estimate of alpha, if applicable.	The alpha used by RBS is 1.4. Refer to page 67.
Capital buffers		
440 (1) (a)	Geographical distribution of relevant credit exposures.	The capital buffer is not in force as at the time of publication. Table CR 4 shows RWAs associated with each geographical region. Table CR 9 shows non counterparty credit risk exposures by approach and exposure class by geographical region.
440 (1) (b)	Amount of the institution specific countercyclical capital buffer.	RBS and its significant subsidiaries will comply with the standards once applicable.
440 (2)	EBA will issue technical implementation standards related to 440 (1).	
Indicators of global systemic importance		
441 (1)	Disclosure of the indicators of global systemic importance.	GSIB indicators as of and for the year ended 31 December 2015 will be published by 30 April 2016 on www.investors.rbs.com
441 (2)	EBA will issue technical implementation standards related to 441 (1).	RBS will comply with the standards; page 3
Credit risk adjustments		
442 (a)	Disclosure of bank's definitions of past due and impaired.	2015 ARA; Capital and risk management–Impairment page 184-194; 2015 ARA: Financial Statements & Accounting policies – important of financial assets page 273
442 (b)	Approaches for calculating credit risk adjustments.	Same as 442 (a)
442 (c)	Disclosure of pre-CRM EAD by exposure class.	CR6 & CR7
442 (d)	Disclosures of pre-CRM EAD by geography and exposure class.	CR 9
442 (e)	Disclosures of pre-CRM EAD by industry and exposure class.	CR 8
442 (f)	Disclosures of pre-CRM EAD by residual maturity and exposure class.	CR 10
442 (g)	Breakdown of impaired, past due, specific and general credit	CR 28
442 (g) (i)	adjustments, and impairment charges for the period, by	
442 (g) (ii)	exposure class or counterparty type.	
442 (g) (iii)		
442 (h)	Impaired, past due exposures, by geographical area, and amounts of specific and general impairment for each geography.	CR 29

Appendix 4 – CRR roadmap

CRR ref	High-level summary	Compliance reference
442 (i)	Reconciliation of changes in specific and general credit risk adjustments.	CR 30
442 (i) (ii)		
442 (i) (iii)		
442 (i) (iv)		
442 (i) (v)		
442 endnote	Specific credit risk adjustments recorded to income statement are disclosed separately.	CR 29 & CR 30
CRR	High level summary	Compliance reference
<u>Unencumbered assets</u>		
443	Disclosures on unencumbered assets.	Appendix 3
<u>Use of ECAs</u>		
444 (a)	Names of the ECAs used in the calculation of Standardised approach RWAs, and reasons for any changes.	CR 23
444 (b)	Exposure classes associated with each ECAI.	CR 24
444 (c)	Process for translating external ratings into credit quality steps.	CR 23
444 (d)	Mapping of external rating to credit quality steps.	CR 23
444 (e)	Exposure value pre- and post-credit risk mitigation, by CQS.	CR 24
<u>Exposure to market risk</u>		
445	Disclosure of position risk, large exposures exceeding limits, FX, settlement and commodities risk.	2015 ARA; Capital and risk management– Market risk capital-Minimum capital requirements page 240
<u>Operational risk</u>		
446	Scope of approaches used to calculate operational risk.	Page 4: RBS uses standardised approach, 2015 ARA; page 177
<u>Exposure in equities not included in the trading book</u>		
<u>Exposure to interest rate risk on positions not included in the trading book</u>		
<u>Exposure to securitisation positions</u>		
449	Exposure to securitisations positions.	
449 (a)	Objectives in relation to securitisation activity.	Page 71
449 (b)	Nature of other risks in securitised assets, including liquidity.	Page 73-75
449 (c)	Risks in re-securitisation activity stemming from seniority of underlying securitisations and ultimate underlying assets.	Page 73-75
449 (d)	The roles played by institutions in the securitisation process.	Page 71-72,
449 (e)	Indication of the extent of involvement in these roles.	SEC 4
449 (f)	Processes in place to monitor changes in credit and market risks of securitisation exposures, and how the processes differ for re-securitisation exposures.	Page 73-75
449 (g)	Description of the institution's policies with respect to hedging and unfunded protection, and identification of material hedge counterparties.	Page 76 & 2015 ARA; Financial statements-Accounting policies-Derivatives and hedging page 275
449 (h)	Approaches to calculation of RWA for securitisations mapped to types of exposures.	Page 76
449 (i)	Types of SSPEs used to securitise third-party exposures, and list of SSPEs.	Page 71-76, SEC 4 & SEC 6
449 (j)	Summary of accounting policies for securitisations:	Page 76-77,2015 ARA; Capital and risk management- Market risk page 238-241, 2015 ARA; Financial statements-Accounting policies: Derecognition page 274,Basis of consolidation page 268, Derivatives and hedging page 275 & Financial assets page 272-273 & 2015 ARA; Financial statements- Notes on consolidated accounts-Structured entities page 331
449 (k)	Names of ECAs used for securitisations.	Page 76-77 & 2015 ARA; Financial statements- Notes on consolidated accounts-Structured entities page 331
449 (l)	Full description of Internal Assessment Approach.	Page 76-77
449 (m)	Explanation of changes in quantitative disclosures.	SEC 1 & SEC 6

Appendix 4 – CRR roadmap

CRR ref	High-level summary	Compliance reference
449 (n)	Banking and trading book securitisation exposures:	
449 (n) (i)	Amount of outstanding exposures securitised;	SEC 6
449 (n) (ii)	On balance sheet securitisation retained or purchased, and off-balance sheet exposures;	SEC 4
449 (n) (iii)	Amount of assets awaiting securitisation;	Page 76
449 (n) (iv)	Early amortisation treatment; aggregate drawn exposures, capital requirements;	RBS has no securitisation positions treated subject to early amortisation treatment
449 (n) (v)	Deducted or 1,250%-weighted securitisation positions;	SEC 2 & SEC 3
449 (n) (vi)	Amount of exposures securitised and recognised gains or losses on sales.	Page 77
449 (o)	Banking and trading book securitisations by risk band:	
449 (o) (i)	Retained and purchased exposure and associated capital requirements, broken down by risk-weight bands;	SEC 1 & SEC 2
449 (o) (ii)	Retained and purchased re-securitisation exposures before and after hedging and insurance; exposure to financial guarantors broken down by guarantor credit worthiness.	SEC 2, SEC 3, SEC 4, 2015 ARA: Capital and risk management: page 232, page 244 & 2015 ARA; Financial statements- Notes on consolidated accounts- Structured entities page 334
449 (p)	Impaired assets and recognised losses related to banking book securitisations, by exposure type.	SEC 6 &
449 (q)	Exposure and capital requirements for trading book securitisations, separately into traditional.	SEC 5
449 (r)	Whether the institution has provided non-contractual financial support to securitisation vehicles.	Page 77

Remuneration disclosures

450	Remuneration	2015 ARA; Governance- Directors' remuneration report & Other remuneration disclosures pages 64-83; covers all parts of RBS, including significant subsidiaries. Also refer to Compliance with CRD IV and Directors' Remuneration Policy documents on the RBS website: rbs.com/about.board-and-governance.html
-----	--------------	--

Leverage

451 (1) (a)	Leverage ratio, and breakdown of total exposure measure, including reconciliation to financial statements, and derecognised fiduciary items.	CAP 1; Appendix 2 - Leverage Exposure
451 (1) (b)		2015 ARA; Capital and risk management - Leverage page 154 & Appendix 2
451 (1) (c)		Not applicable
451 (1) (d)	Description of the risk management approach to mitigate excessive leverage, and factors that impacted the leverage	2015 ARA; Capital and risk management – Risk appetite and strategy page 148
451 (1) (e)	ratio during the year.	Page 7
451 (2)	EBA to publish implementation standards for points above. Use of the IRB approach to credit risk	RBS follows the implementation standards.
452 (a)	Permission for use of the IRB approach from authority.	Page 18
452 (b)	Explanation of:	
452 (b) (i)	Internal rating scales, mapped to external ratings;	CR 14, CR 23, Page 18 & 47
452 (b) (ii)	Use of internal ratings for purposes other than capital requirement calculations;	2015 ARA; Capital and risk management-Credit risk-Risk measurements and models page 183, Credit risk -Watchlist page 192-3 & Personal credit risk management page 203
452 (b) (iii)	Management and recognition of credit risk mitigation;	Pages 45-46, 2015 ARA; Capital and risk management – 184, 190-191, 195-196, 211 & 214
452 (b) (iv)	Controls around ratings systems.	2015 ARA; Capital and risk management -Credit risk- Model risk management page 138
452 (c)	Ratings processes for each IRB asset class.	Pages 19-21
452 (d)	Exposure values by IRB exposure class, separately for Advanced and Foundation IRB.	CR 5
452 (e)-(h)	For each exposure class, disclosed separately by obligor grade:	CR 15 to CR 21
452 (e)-(f)	Total exposure, separating loans and undrawn exposures where applicable, and exposure-weighted average risk weight.	CR 15 to CR 21

Appendix 4 – CRR roadmap

CRR ref	High-level summary	Compliance reference
452 (g)	Actual specific risk adjustments for the period and explanation of changes.	CR 25
452 (h)	Commentary on drivers of losses in preceding period.	CR15 to CR21, CR 26 & CR 27
452 (i)	Predicted against actual losses for sufficient period, and historical analysis to help assess the performance of the rating system over a sufficient period.	CR 26 & CR 27
452 (j)	For all IRB exposure classes:	CR 25, CR 26 & CR 27
452 (j) (i)	Where applicable, PD and LGD by each country where the bank operates.	CR 9
Use of credit risk mitigation techniques		
453 (a)	Use of on- and off-balance sheet netting.	Page 21, CR 2, CR 3, 2015 ARA; Capital and risk management: Risk measurements and models- page 183-184,Risk mitigation page 190,Balance sheet to CRA bridge page 211 & Credit risk balance sheet analysis page 214, 228
453 (b)	How collateral valuation is managed.	2015 ARA; Capital and risk management - Risk mitigation page 190-193
453 (c)	Description of types of collateral used by RBS.	2015 ARA; Capital and risk management - Risk mitigation page 184-185 & page 190-191 & 203
453 (d)	Guarantor and credit derivative counterparty, creditworthiness.	2015 ARA; Capital and risk management - Derivatives page 228 - 230
453 (e)	Market or credit risk concentrations within risk mitigation exposures.	2015 ARA; Capital and risk management: Credit risk page 192,Financial assets page 217-218; Country risk page 212-213
453 (f)	Standardised or Foundation IRB approach, exposure value covered by eligible collateral.	CR 13
453 (g)	Exposures covered by guarantees or credit derivatives.	CR 12
Use of the advanced measurement approaches to operational risk (454)		
Use of internal market risk models		
455 (a) (i)	Characteristics of the market risk models.	2015 ARA Capital and risk management -Market risk: Traded market risk-page 233-239
455 (a) (ii)	Methodology for all-price risk measure and incremental risk charge.	Traded market risk page 239
455 (a) (iii)	Descriptions of stress tests applied to the portfolios.	Traded market risk-page 237 to 238
455 (a) (iv)	Methodology for back-testing and validating the models.	Traded market risk page 235-236 & Non traded market risk-page 242-243
455 (b)	Scope of permission for use of the models.	Traded market risk page 239
455 (c)	Policies and processes to determine trading book classification, and to comply with prudential valuation requirements.	Traded market risk page 242
455 (d)	High/Low/Mean values over the year of VaR, stressed VaR, all-price risk measure and incremental risk charge.	Traded market risk page 234 Non traded market risk page 240
455 (e)	The elements of the own fund calculation.	Traded market risk page 240
455 (f)	Weighted average liquidity horizons of portfolios covered by models.	Traded market risk page 240
455 (g)	Comparison of end-of-day VaR measures compared with one-day changes in portfolio's value.	Traded market risk page 231 to 236

Glossary

Acronyms

ABCP	Asset-backed commercial paper	LIBOR	London Interbank Offered Rate
ARA	Annual Report and Accounts	MRM	Model risk management
AQ	Asset quality	MTM	mark-to-market
BBSW	Bank Bill Swap Reference Rate (Australia)	NTIRR	Non-traded interest rate risk
CCF	Credit conversion factor	NWB Plc	National Westminster Bank Plc
CCP	Central counterparty	OTC	Over-the-counter
CDOR	Canadian Dollar Offered Rate	PBB	Personal & Business Banking
CEM	Counterparty exposure management	PD	Probability of default
CIB	Corporate & Institutional Banking	PFE	Potential future exposure
CQS	Credit quality steps	PRA	Prudential Regulation Authority
CRD	Capital Requirements Directive	RAR	Risk asset ratio
CRM	Credit risk mitigation	RBA	Ratings based approach
CRR	Capital Requirement Regulation	RBS	The Royal Bank of Scotland Group plc and its subsidiaries
EAD	Exposure at default	RBS plc	The Royal Bank of Scotland plc
EBA	European Banking Authority	RBSSI	RBS Securities Inc.
ECAI	External Credit Assessment Institution	RCR	RBS Capital Resolution
EMEA	Europe, the Middle East and Africa	RoI	Republic of Ireland
EPE	Expected positive exposure	RoW	Rest of the World
EU	European Union	RWAs	Risk-weighted assets
EURIBOR	Euro Interbank Offered Rate	S&P	Standard and Poor
FI	Financial institution	SFTs	Securities financing transactions
GSIB	Global Systemically Important Bank	SMEs	Small and medium-sized enterprises
IAA	Internal assessment approach	SSPE	Securitisation special purpose entity
ICAAP	Internal capital adequacy assessment process	STD	Standardised
IFRS	International Financial Reporting Standard	TMT	Telecommunications, media, technology
IMM	Internal model method	TTC	Through-the-cycle
IMS	Interim management statement	UBIL	Ulster Bank Ireland Limited
IPRE	Income-producing real estate	VaR	Value-at-risk
IRB	Internal ratings based		
LGD	Loss given default		

Glossary

Key terms

Also refer to pages 505 to 511 of the 2015 ARA

Alpha - in the context of regulatory capital for counterparty risk, under the internal model method, alpha is a multiplier applied to the effective expected positive exposure (EPE) to determine the exposure at default. Alpha may be set using an own estimate with a floor of 1.2. It accounts for the extra capital needed for derivatives, compared to loans with the same EPE, to reflect the additional risks.

Asset-backed commercial paper (ABCP) - a form of asset-backed security generally issued by a commercial paper conduit.

Asset quality (AQ) band - probability of default banding for all counterparties on a scale of 1 to 10.

Basel II - the capital adequacy framework issued by the Basel Committee on Banking Supervision in June 2006 in the form of the 'International Convergence of Capital Measurement and Capital Standards'.

Basel III - in December 2010, the Basel Committee on Banking Supervision issued final rules: 'Basel III: A global regulatory framework for more resilient banks and banking systems' and 'Basel III: International framework for liquidity risk measurement, standards and monitoring'.

Central counterparty (CCP) default fund - a mechanism that allows the sharing (mutualisation) of losses among the central counterparty's clearing members. It is used where the losses incurred by the CCP following the default of a clearing member are greater than the margins and default fund contributions provided by that clearing member and any other defence the CCP may use before recurring to the default fund contributions of the remaining clearing members. In view of this, the risk of loss associated with exposures from default fund contributions is higher than that associated with trade exposures. Therefore, this type of exposures should be subject to a higher own funds requirement.

Commercial paper conduit - a structured entity that issues commercial paper and uses the proceeds to purchase or fund a pool of assets. The commercial paper is secured on the assets and is redeemed either by further commercial paper issuance, repayment of assets or liquidity drawings.

Common Equity Tier 1 capital - the highest quality form of regulatory capital under Basel III comprising common shares issued and related share premium, retained earnings and other reserves excluding the cash flow hedging reserve, less specified regulatory adjustments.

Counterparty credit risk - the risk that a counterparty defaults before the maturity of a derivative or sale and repurchase contract. In contrast to non-counterparty credit risk, the exposure to counterparty credit risk varies by reference to a market factor (e.g. interest rate, exchange rate, asset price).

CRD IV - the European Union has implemented the Basel III capital proposals through the Capital Requirements Regulation and the Capital Requirements Directive (CRD), collectively known as CRD IV. CRD IV was implemented on 1 January 2014. The European Banking Authority's technical standards are still to be finalised through adoption by the European Commission and implemented within the UK.

Credit conversion factor (CCF) - the CCF is an estimate of the proportion of undrawn commitments that will be drawn at the point of default. It is used in determining EAD and reflects the assumption that drawn balance at default might be greater than the current balance.

Credit default swap - a contract where the protection seller receives premium or interest-related payments in return for contracting to make payments to the protection buyer upon a defined credit event in relation to a reference financial asset or portfolio of financial assets. Credit events usually include bankruptcy, payment default and rating downgrades.

Credit grade - a rating that represents an assessment of the creditworthiness of a customer. It is a point on a scale representing the probability of default of a customer.

Credit quality step (CQS) - a grade on the PRA credit quality assessment scale based on the credit ratings of external credit assessment institutions. It is used to assign risk weights under the standardised approach to credit risk.

Credit risk - the risk of financial loss due to the failure of a customer, or counterparty, to meet its obligation to settle outstanding amounts.

Credit risk mitigation (CRM) - reducing the credit risk of an exposure by application of techniques such as netting, collateral, guarantees and credit derivatives.

Credit spread - is the yield spread between securities with the same currency and maturity structure but with different associated credit risks, with the yield spread rising as the credit rating worsens. It is the premium over the benchmark or risk-free rate required by the market to take on a lower credit quality.

Credit valuation adjustment - is the difference between the risk-free value of a portfolio of trades and its market value, taking into account the counterparty's risk of default. It represents the market value of counterparty credit risk, or an estimate of the adjustment to fair value that a market participant would make to reflect the creditworthiness of its counterparty.

Effective expected positive exposure (effective EPE) - effective EPE is a measure used to determine EAD for OTC derivatives under the internal model method. It is calculated as the weighted average of non-decreasing expected positive exposures. The weight of each exposure is calculated as a percentage of total expected exposure over the relevant period. When calculating the minimum capital requirement, the average is taken over the first year.

Glossary

Key terms

Expected loss - expected loss represents the anticipated loss on an exposure over one year. It is determined by multiplying probability of default, loss given default and exposure at default and can be calculated at individual, credit facility, customer or portfolio level.

Exposure - a claim, contingent claim or position which carries a risk of financial loss.

Exposure at default (EAD) - an estimate of the extent to which the bank will be exposed under a specific facility, in the event of the default of a counterparty.

Exposure class - exposures are assigned to classes defined under CRR, namely article 147 for the advanced IRB approach and article 112 for the standardised approach. This classification is required by the regulatory framework when calculating the capital requirements of banks.

Fair value - the amount for which an asset could be exchanged or a liability settled, between knowledgeable and willing parties in an arm's length transaction.

Guarantees - an agreement by a third party to cover the potential loss to RBS should a specified counterparty default on its commitments.

Haircut - a downward adjustment to collateral value to reflect its nature, any currency or maturity mismatches between a credit risk mitigant and the underlying exposure to which it is being applied.

Income-producing real estate - comprises real estate exposures that meet the following CRR (or regulatory) criteria for specialised lending exposures: (i) the exposure is to an entity that was created specifically to finance and/or operate physical assets; (ii) the contractual arrangements give the lender a substantial degree of control over the assets and the income that they generate; and (iii) the primary source of repayment of the obligation is the income generated by the assets being financed, rather than the independent capacity of a broader commercial enterprise. It therefore constitutes a sub-set of RBS's overall exposure to commercial real estate.

Interest rate risk - the adverse impact on the value or interest income of a financial asset arising from changes in interest rates.

Internal Capital Adequacy Assessment Process (ICAAP) - RBS's own assessment, as part of CRR requirements, of its risks, how it intends to mitigate those risks and how much current and future capital is necessary having considered other mitigating factors.

Internal model method (IMM) - in the context of counterparty credit risk, the IMM is the most risk-sensitive and sophisticated approach to calculating EAD out of the three methods available under CRR. Under the IMM firms may use their internal model which should be aligned to the firm's internal risk management practices. EAD is calculated as the product of alpha and EPE.

Internal ratings based approach (IRB) - a method of estimating the amount of credit risk taken by a bank. Under IRB a bank may use internal estimates to generate risk components for use in the calculation of its credit risk regulatory capital requirements. There are two approaches: foundation and advanced (including retail).

Latent loss provisions - loan impairment provisions held against impairments in the performing loan portfolio that have been incurred as a result of events occurring before the balance sheet date but which have not been identified as impaired at the balance sheet date.

Loss given default (LGD) - an estimate of the amount that will not be recovered by RBS in the event of default, plus the cost of debt collection activities and the delay in cash recovery.

Margin period of risk - The time period from the last exchange of collateral covering a netting set of transactions with a defaulting counterparty until that counterparty is closed out and the resulting market risk is re-hedged.

Market risk - the risk of loss arising from fluctuations in interest rates, credit spreads, foreign currency rates, equity prices, commodity prices and other risk-related factors such as market volatilities that may lead to a reduction in earnings, economic value or both.

Mark-to-market (mtm) - the adjustment in the value of an asset or liability to reflect any change in market prices.

Mark-to-market method - in the context of counterparty credit risk, the mtm method is the simplest of three methods used to determine exposure values. The exposure value is calculated as the mtm value plus the potential future exposure (PFE) value, where the PFE is a percentage of the notional value of the contract. The percentage to be applied varies by product and maturity.

Minimum capital requirements - the minimum amount of regulatory capital that a financial institution must hold to meet the Pillar 1 requirements for credit, market and operational risk.

Monoline insurers (monolines) - entities that specialise in providing credit protection against the notional and interest cash flows due to the holders of debt instruments in the event of default. This protection is typically in the form of derivatives such as credit default swaps.

Netting - the process by which the value of assets taken from a given counterparty is offset by the value of assets given to the same counterparty, thereby reducing the exposure of one party to the other to the difference between the two.

Non-trading book - positions, exposures, assets and liabilities that are not in the trading book. It is also referred to as "banking book".

Operational risk - the risk of loss resulting from inadequate or failed processes, people, systems or from external events.

Over-the-counter derivatives - derivatives with tailored terms and conditions negotiated bilaterally, in contrast to exchange traded derivatives which have standardised terms and conditions.

Glossary

Key terms

Pillar 1 - the part of Basel III that sets out the process by which regulatory capital requirements should be calculated for credit, market and operational risk

Pillar 2 - the part of Basel III that sets out the process by which a bank should review its overall capital adequacy and the processes under which the supervisors evaluate how well financial institutions are assessing their risks and take appropriate actions in response to the assessments.

Pillar 3 - the part of Basel III that sets out the information banks must disclose about their risks, the amount of capital required to absorb them, and their approach to risk management. The aim is to strengthen market discipline.

Point-in-time - an assessment of PD or a rating system based on a view of a counterparty's current rather than future financial situation given economic conditions. This differs from a through-the-cycle approach, which considers performance over the duration of an economic cycle.

Position risk requirement - a capital requirement applied to a position treated under Part Three, Title 1, Chapter 3 (Market risk) as part of the calculation of the market risk capital requirement.

Probability of default (PD) - the likelihood that a customer will fail to make full and timely repayment of credit obligations over a one year time horizon.

Prudential Regulation Authority (PRA) - the statutory body responsible, from 1 April 2013, for the prudential supervision of banks, building societies, insurers and a small number of significant investment firms in the UK. The PRA is a subsidiary of the Bank of England.

Repo - refer to sale and repurchase agreements.

Re-securitisations - securitisations in which the underlying pools of assets are themselves bonds issued by securitisation SSPEs.

Residential mortgage-backed securities - asset-backed securities for which the underlying asset portfolios are residential mortgages.

Residual maturity - the remaining time in years that a borrower is permitted to take to fully discharge its contractual obligation (principal, interest and fees) under the terms of a loan agreement.

Reverse repurchase agreement (reverse repo) - repurchase agreements are short-term funding arrangements that allow counterparties to use financial securities as collateral for interest-bearing cash loans. The borrower agrees to sell a security to the lender subject to a commitment to repurchase the same security at an agreed date and price; usually the original sale price plus an amount representing interest for the period. Refer to sale and repurchase agreements.

Risk-weighted assets (RWAs) - assets adjusted for their associated risks using weightings established in accordance with the Basel Capital Accord as implemented by the PRA. Certain assets are not weighted but deducted from capital.

Sale and repurchase agreements - in a sale and repurchase agreement one party, the seller, sells a financial asset to another party, the buyer at the same time the seller agrees to reacquire and the buyer to resell it at a later date. From the seller's perspective such agreements are repurchase agreements (repos) and from the buyer's reverse repurchase agreements (reverse repos).

Securitisation - a process by which assets or cash flows are transformed into transferable securities. The underlying assets or cash flows are transferred by the originator or an intermediary, typically an investment bank, to a structured entity which issues securities to investors. Asset securitisations involve issuing debt securities (asset-backed securities) that are backed by the cash flows of income generating assets (ranging from credit card receivables to residential mortgage loans).

Securitisation position - refers to any exposures RBS may have to a securitisation. These include not only the securities issued by an SSPE, but also loans, liquidity facilities and derivatives transacted with an SSPE.

Securitisation special purpose entity (SSPE) - an entity that has been designed such that voting or similar rights are not the dominant factor in deciding who controls the entity, for example when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. SSPEs are usually established for a specific limited purpose, they do not carry out a business or trade and typically have no employees. They take a variety of legal forms - trusts, partnerships and companies - and fulfil many different functions.

Securitised exposure - an asset, or a pool of assets, that has been securitised, either via a traditional securitisation or a synthetic securitisation. See traditional securitisation and synthetic securitisation below.

Standard industrial classification - a classification of businesses by type or economic activity. It is applied by international government agencies to provide a framework for the collection, tabulation, presentation and analysis of data related to industry sectors, and its use promotes uniformity.

Standardised (STD) approach - a method used to calculate credit risk capital requirements under Pillar 1 of Basel III. In this approach the risk-weights used in the capital calculation are determined by regulators. For operational risk, capital requirements are determined by multiplying three years' historical gross income by a percentage determined by the regulator. The percentage ranges from 12% to 18%, depending on the type of underlying business being considered.

Stress testing - a technique used to evaluate the potential effects on an institution's financial condition of an exceptional but plausible event and/or movement in a set of financial variables.

Stressed value-at-risk - a VaR measure using historical data from a one year period of stressed market conditions. For the purposes of calculating regulatory stressed VaR, a time horizon of ten trading days is assumed at a confidence level of 99% (Refer to VaR definition below).

Glossary

Key terms

Supervisory slotting approach - a method of calculating regulatory capital, specifically for lending exposures in project finance and income-producing real estate, where the PD estimates do not meet the minimum IRB standards. Under this approach, the bank classifies exposures from 1 to 5, where 1 is Strong and 5 is Default. Specific risk-weights are assigned to the classifications in line with CRR article 153(5).

Synthetic securitisation - a securitisation process in which the originating bank retains legal ownership of a pool of assets, but transfers the associated credit risk to an SSPE through the use of credit-linked notes or credit derivatives.

Tier 1 capital - Common Equity Tier 1 capital plus other Tier 1 securities in issue, less material holdings in financial companies.

Tier 1 capital ratio - Tier 1 capital as a percentage of risk-weighted assets.

Tier 2 capital - qualifying subordinated debt and other Tier 2 securities in issue, eligible collective impairment allowances, unrealised available-for-sale equity gains and revaluation reserves less certain regulatory deductions.

Trading book - a trading book consists of positions in financial instruments and commodities held either with the intent to trade, or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability, or able to be hedged.

Traditional securitisation - securitisation in which the originating bank transfers legal ownership of a pool of assets to an SSPE.

Undrawn commitments - assets/liabilities that have been committed but not yet transacted. In terms of credit risk, these are obligations to make loans or other payments in the future.

Value-at-risk (VaR) - for the purpose of market risk, VaR is a technique that produces estimates of the potential loss in the market value of a portfolio over a specified time period at a given confidence level.