ROYAL BANK OF SCOTLAND GROUP PLC
Form 6-K
April 30, 2019

Report of Foreign Private Issuer

Pursuant to Rule 13a-16 or 15d-16 of

the Securities Exchange Act of 1934

30 April 2019

Commission file number: 001-10306

Form 6-K

The Royal Bank of Scotland Group plc

Gogarburn

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Scotland

United Kingdom

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F x Form 40-F o

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):o

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):o

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes o No x

If Yes is marked, indicate below the file number assigned to

the registrant in connection with Rule 12g3-2(b): 82-

This report on Form 6-K, except for any information contained on any websites linked or documents referred to in this report, shall be deemed incorporated by reference into the company s Registration Statement on Form F-3 (File No. 333-222022) and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

Presentation of information

Explanatory note

The company is filing this Form 6-K to restate certain disclosures in the company s annual report on Form 20-F for the year ended 31 December 2018, filed with the Securities and Exchange Commission on 28 February 2019 (the 2018 Form 20-F) in connection with the re-segmentation completed in Q1 2019 and effective from 1 January 2019 and changes in Reporting standard IAS 12 Income taxes effective from 1 January 2019. The sections restated include the Business review, Capital and risk management, and the Financial statements.

Summary of the re-segmentation

Business Banking has been transferred from UK Personal and Business Banking (UK PBB) to Commercial Banking as the nature of the business, including distribution channels, products and customers, are more closely aligned to the Commercial Banking Business. Concurrent with the transfer, UK PBB has been renamed UK Personal Banking (UK PB) and the previous franchise combining UK PBB and Ulster Bank RoI renamed Personal & Ulster. The Commercial and Private Banking franchise has also been renamed Commercial & Private Banking (CPB).

Changes in reporting standards

IAS 12 Income taxes was revised with effect from 1 January 2019. The income statement is now required to include any tax relief on the servicing cost of instruments classified as equity. Relief of £67 million was recognised in the income statement and the statement of changes in equity for the year ended 31 December 2018; this and prior periods have been restated in the Q1 2019 results and in this document.

This Form 6-K

RBS released its results for the three months ended 31 March 2019, which were filed with the Securities and Exchange Commission on a separate Form 6-K on 26 April 2019, reflecting the reclassified segmental information and the changes in Reporting standard IAS 12 Income taxes . To facilitate comparison with these interim results, the disclosures included in the 2018 Form 20-F have been restated in this Form 6-K.

Accordingly, the sections Business review , Capital and risk management and Financial statements of the 2018 Form 20-F have been represented in full and in which the undernoted pages that correspond to the 2018 Form 20-F have been restated to reflect the re-segmentation of results attributable to UK Business Banking and to reflect the changes in Reporting standard IAS 12 Income taxes . Page numbers in this Form 6-K remain unchanged to the 2018 Form 20-F to facilitate cross referencing and are therefore not necessarily consecutive.

Pages impacted by re-segmentation:

Page 40 (Business review Analysis of results Segmental summary income statements)

Pages 46 to 47 (Segmental performance UK Personal & Business Banking)

Pages 50 to 51 (Segmental performance Commercial Banking)

Pages impacted by Reporting standard IAS 12 Income taxes :

Forward looking statements

Cautionary statement regarding forward-looking statements

Certain sections in this document contain forward-looking statements as that term is defined in the United States Private Securities Litigation Reform Act of 1995, such as statements that include the words expect , estimate , project , anticipate , commit , believe , should , intend , pla probability , risk , Value-at-Risk (VaR) , target , goal , objective , may , endeavour , outlook , optimistic , prospects and similar expressio these expressions.

In particular, this document includes forward-looking statements relating, but not limited to: future profitability and performance, including financial performance targets such as return on tangible equity; cost savings and targets, including cost:income ratios; litigation and government and regulatory investigations, including the timing and financial and other impacts thereof; the implementation of the Alternative Remedies Package; the continuation of the Group s balance sheet reduction programme, including the reduction of risk-weighted assets (RWAs) and the timing thereof; capital and strategic plans and targets; capital, liquidity and leverage ratios and requirements, including CET1 Ratio, RWA equivalents (RWAe), Pillar 2 and other regulatory buffer requirements, minimum requirement for own funds and eligible liabilities, and other funding plans; funding and credit risk profile; capitalisation; portfolios; net interest margin; customer loan and income growth; the level and extent of future impairments and write-downs, including with respect to goodwill; restructuring and remediation costs and charges; the Group s exposure to political risk, economic risk, climate change risk, operational risk, conduct risk, cyber and IT risk and credit rating risk and to various types of market risks, including interest rate risk, foreign exchange rate risk and commodity and equity price risk; customer experience including our Net Promotor Score (NPS); employee engagement and gender balance in leadership positions.

Limitations inherent to forward-looking statements

These statements are based on current plans, estimates, targets and projections, and are subject to significant inherent risks, uncertainties and other factors, both external and relating to the Group s strategy or operations, which may result in the Group being unable to achieve the current targets, predictions, expectations and other anticipated outcomes expressed or implied by such forward-looking statements. In addition, certain of these disclosures are dependent on choices relying on key model characteristics and assumptions and are subject to various limitations, including assumptions and estimates made by management. By their nature, certain of these disclosures are only estimates and, as a result, actual future gains and losses could differ materially from those that have been estimated. Accordingly, undue reliance should not be placed on these statements. Forward-looking statements speak only as of the date we make them and we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the Group s expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Important factors that could affect the actual outcome of the forward-looking statements

We caution you that a large number of important factors could adversely affect our results or our ability to implement our strategy, cause us to fail to meet our targets, predictions, expectations and other anticipated outcomes or affect the accuracy of forward-looking statements we describe in this document, including in the risk factors and other uncertainties set out in the document and other risk factors and uncertainties discussed in this document. These include the significant risks for the Group presented by: operational and IT resilience risk (including in respect of: the Group being subject to cyberattacks; operational risks inherent in the Group s business; the Group s operations being highly dependent on its IT systems; the Group relying on attracting, retaining and developing senior management and skilled personnel and maintaining good employee relations; the Group s risk management framework; and reputational risk), economic and political risk (including in respect of: the uncertainties surrounding the UK s withdrawal from the European Union; increased political and economic risks and uncertainty in the UK and global markets; climate change and the transition to a low carbon economy; HM Treasury s ownership of RBSG and the possibility that it may exert a significant degree of influence over the Group; continued low interest rates and changes in foreign currency exchange rates), financial resilience risk (including in respect of: the Group s ability to meet targets and make discretionary capital distributions to shareholders; the highly competitive markets in which the Group operates; deterioration in borrower and counterparty credit quality; the ability of the Group to meet prudential regulatory requirements for capital and MREL, or to manage its capital effectively; the ability of the Group to access adequate sources of liquidity and funding; changes in the credit ratings of RBSG, any of its subsidiaries or any of its respective debt securities; the Group s ability to meet requirements of regulatory stress tests; possible losses or the requirement to maintain higher levels of capital as a result of limitations or failure of various models; sensitivity of the Group s financial statements to underlying accounting policies, judgements, assumptions and estimates; changes in applicable accounting policies or rules; the value or effectiveness of any credit protection purchased by the Group; the level and extent of future impairments and write-downs, including with respect to goodwill; and the application of UK statutory stabilisation or resolution powers) and legal, regulatory and conduct risk (including in respect of: the Group s businesses being subject to substantial regulation and oversight; legal, regulatory and governmental actions and investigations; the replacement of LIBOR, EURIBOR and other benchmark rates; heightened regulatory and governmental scrutiny (including by competition authorities); implementation of the Alternative Remedies Package and the costs related thereto; and changes in tax legislation).

The forward-looking statements contained in this document speak only as at the date hereof, and the Group does not assume or undertake any obligation or responsibility to update any forward-looking statement to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

The information, statements and opinions contained in this document do not constitute a public offer under any applicable legislation or an offer to sell or solicit of any offer to buy any securities or financial instruments or any advice or recommendation with respect to such securities or other financial instruments.

Presentation of information

In this document, and unless specified otherwise, the term company or RBSG means The Royal Bank of Scotland Group plc, RBS , RBS Group or the Group means the company and its subsidiaries, the Royal Bank or RBS plc means The Royal Bank of Scotland plc; NWH Ltd means NatWest Holdings Limited; and NatWest means National Westminster Bank Plc.

The company publishes its financial statements in pounds sterling (£ or sterling). The abbreviations £m and £bn represent millions and thousands o millions of pounds sterling, respectively, and references to pence represent pence in the United Kingdom (UK). Reference to dollars or $ are to United States of America (US) dollars. The abbreviations $m and $bn represent millions and thousands of millions of dollars, respectively, and references to cents represent cents in the US. The abbreviation represents the euro , and the abbreviations m and bn represent millions and thousands of millions of euros, respectively.

Any information contained on websites linked or reports referenced in this report on Form 6-K are for information only and shall not be deemed to be incorporated by reference herein.

Non-GAAP financial information

RBS prepares its financial statements in accordance with IFRS as issued by the IASB which constitutes a body of generally accepted accounting principles (GAAP). This document contains a number of non-GAAP (or non-IFRS) financial measures. A non-GAAP financial measure is defined as one that measures historical or future financial performance, financial position or cash flows but which excludes or includes amounts that would not be so adjusted in the most comparable GAAP measure.

The non-GAAP financial measures used in this document generally exclude certain items which management believe are not representative of the underlying performance of the business and which distort period-on-period comparison. These measures are used internally by management, in conjunction with IFRS financial measures, to measure performance and make decisions regarding the future direction of the business. Management believes these non-GAAP financial measures, when provided in combination with reported IFRS results, provide helpful supplementary information for investors. These non-GAAP financial measures are not a substitute for, and should be read in conjunction with, reported IFRS financial measures.

The main non-GAAP measures used in this document include:

- Performance, funding and credit metrics such as return on tangible equity , and related RWA equivalents incorporating the effect of capital deductions (RWAes), total assets excluding derivatives (funded assets), net interest margin (NIM) adjusted for items designated at fair value through profit or loss (non-statutory NIM), cost:income ratio and loan:deposit ratio. These are internal metrics used to measure business performance; and

- Personal & Ulster franchise results, combining the reportable segments of UK Personal Banking (UK PB) and Ulster Bank RoI and Commercial & Private (CPB) franchise results, combining the reportable segments of Commercial Banking and Private Banking, which is presented to provide investors with a summary of the Group s business performance.

- The Commercial Banking, Private Banking, RBS International and NatWest Markets operating segment period on period comparison is impacted by a number of business transfers executed in preparation for ring-fencing. Commentary on the movements in the period for these segments has been adjusted for these items and reconciliation notes are provided.

- The Group also presents a pro forma CET1 ratio which is on an adjusted basis. This has not been prepared in accordance with Regulation S-X and should be read in conjunction with the notes provided, as well as the section Forward-looking statements on page 1 of this document.

Key operating indicators

This document includes a number of operational metrics which management believes may be helpful to investors in understanding the Group s business, including the Group s position against its own targets. These metrics include performance, funding and credit metrics such as return on tangible equity and related RWA equivalents incorporating the effect of capital deductions (RWAes), total assets excluding derivatives (funded assets) and net interest margin (NIM) adjusted for items designated at fair value through profit or loss (non-statutory NIM), cost:income ratio, and loan:deposit ratio. These are internal metrics used to measure business performance.

Capital and liquidity measures

Certain liquidity and capital measures and ratios are presented in this document as management believes they are helpful for investors understanding of the liquidity and capital profile of the business and the Group s position against its own targets and applicable regulatory requirements. Some of these measures are used by management for risk management purposes and may not be required to be disclosed by a government, governmental authority or self-regulatory organisation. As a result, the basis of calculation of these measures may not be the same as that used by the Group s peers. These capital and liquidity measures and ratios include: the liquidity coverage ratio, stressed outflow coverage and net stable funding ratio.

Recent developments

For recent developments, refer to the results for the quarter ended 31 March 2019, which were filed with the Securities and Exchange Commission on a separate Form 6-K on 26 April 2019.

Presentation of information

In the Report and Accounts, unless specified otherwise, the terms company and RBSG mean The Royal Bank of Scotland Group plc, RBS , RBS Group and the Group mean the company and its subsidiaries; the Royal Bank and RBS plc mean The Royal Bank of Scotland plc; NWH Ltd mean NatWest Holdings Limited; NatWest means National Westminster Bank Plc and NWM Plc means NatWest Markets Plc.

The company publishes its financial statements in pounds sterling (£ or sterling). The abbreviations £m and £bn represent millions and thousands of millions of pounds sterling, respectively, and references to pence represent pence in the United Kingdom (UK). Reference to dollars or $ are to United States of America (US) dollars. The abbreviations $m and $bn represent millions and thousands of millions of dollars, respectively, and references to cents represent cents in the US. The abbreviation represents the euro , and the abbreviations m and bn represent millions and thousands of millions of euros, respectively.

Segmental reporting

RBS continues to deliver on its plan to build a strong, simple and fair bank for both customers and shareholders.

Reportable operating segments

The reportable operating segments are as follows. For full business descriptions see Note 4 on page 195.

Franchise	Reportable operating segment
Personal & Ulster	UK Personal Banking (UK PB)
	Ulster Bank RoI
Commercial & Private (CPB)	Commercial Banking
	Private Banking
Other reportable segments	RBS International (RBSI)
	NatWest Markets
	Central items & other

Allocation of central items

RBS allocates all central costs relating to Services and Functions to the business using appropriate drivers, these are reported as indirect costs in the segmental income statements. Assets (and risk-weighted assets) held centrally, mainly relating to RBS Treasury, are allocated to the business using appropriate drivers.

Key operating indicators

RBS prepares its financial statements in accordance with IFRS as issued by the IASB and as adopted by the European Union, which constitutes a body of generally accepted accounting principles (GAAP). This document contains a number of adjusted or alternative performance measures, also known as non-GAAP financial measures. These measures exclude certain items which management believe are not representative of the underlying performance of the business and which distort period-on-period comparison. These measures include:

- Performance, funding and credit metrics such as return on tangible equity , and related RWA equivalents incorporating the effect of capital deductions (RWAes), total assets excluding derivatives (funded assets) and net interest margin (NIM) adjusted for items designated as fair value through profit or loss (non-statutory NIM), cost:income ratio, loan:deposit ratio and impairment provision ratios. These are internal metrics used to measure business performance.

- Personal & Ulster franchise, combining UK Personal Banking and Ulster Bank RoI and Commercial & Private (CPB) franchise, combining the reportable segments of Commercial Banking and Private Banking.

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Business review

Financial summary

RBS s financial statements are prepared in accordance with IFRS. Selected data under IFRS for each of the last five years is presented below.

Summary consolidated income statement	2018 £m	2017 £m	2016 £m	2015 £m	2014 £m
Net interest income	8,656	8,987	8,708	8,767	9,258
Non-interest income	4,746	4,146	3,882	4,156	5,892
Total income	13,402	13,133	12,590	12,923	15,150
Operating expenses	(9,645)	(10,401)	(16,194)	(16,353)	(13,859)
Profit/(loss) before impairment (losses)/releases	3,757	2,732	(3,604)	(3,430)	1,291
Impairment (losses)/releases	(398)	(493)	(478)	727	1,352
Operating profit/(loss) before tax	3,359	2,239	(4,082)	(2,703)	2,643
Tax charge	(1,208)	(731)	(1,107)	(3)	(1,901)
Profit/(loss) from continuing operations	2,151	1,508	(5,189)	(2,706)	742
Profit/(loss) from discontinued operations, net of tax				1,541	(3,445)
Profit/(loss) for the year	2,151	1,508	(5,189)	(1,165)	(2,703)
Attributable to:					
Ordinary shareholders	1,622	752	(6,955)	(1,979)	(3,470)
Preference shareholders	182	234	260	297	330
Dividend access share			1,193		320
Paid-in equity holders	355	487	303	108	57
Non-controlling interests	(8)	35	10	409	60
	2,151	1,508	(5,189)	(1,165)	(2,703)

Notable items within total income	2018 £m	2017 £m
IFRS volatility in Central items & other	(59)	2
Insurance indemnity	357	
Of which:		
NatWest Markets	165	
Central items & other	192	
UK PB debt sale gain	61	185
FX losses in Central items & other	(46)	(183)
Commercial Banking fair value and disposal gain	169	6
NatWest Markets legacy business disposal losses	(86)	(712)
Own credit adjustment	92	(69)
Loss on redemption of own debt		(7)
Strategic disposals		347
	488	(431)

Performance key metrics and ratios	2018	2017
Return on tangible equity (%)	5.0	2.5
Net interest margin (%) (1)	1.98	2.13
Average interest earning assets (£m)	436,957	422,337

Cost:income ratio (%)	71.7	79.0
Earning per share (pence) - basic	13.5p	6.3p

Note:

(1) Net interest margin is net interest income of the banking business as a percentage of interest earning assets (IEA) of the banking business.

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Business review

Financial summary continued	2018	2017	2016	2015	2014
Summary consolidated balance sheet	£m	£m	£m	£m	£m
Cash and balances at central banks	88,897	98,337	74,250	79,404	74,872
Trading assets	75,119	85,991	86,660	103,972	150,005
Derivatives	133,349	160,843	246,981	262,514	353,590
Settlement balances	2,928	2,517	5,526	4,116	4,667
Loans to banks and customers - amortised cost	318,036	321,633	320,016	297,020	325,954
Other financial assets	59,485	51,929	48,637	47,004	38,298
Other assets	16,421	16,806	16,586	21,378	103,633
Total assets	694,235	738,056	798,656	815,408	1,051,019
Deposits	384,211	391,712	357,173	338,326	346,172
Trading liabilities	72,350	81,982	84,536	92,299	130,920
Settlement balances, derivatives, and other financial liabilities	182,230	200,398	267,257	288,023	402,829
Other liabilities	8,954	14,871	40,286	42,613	112,389
Owners equity	45,736	48,330	48,609	53,431	55,763
Non-controlling interests	754	763	795	716	2,946
Total liabilities and equity	694,235	738,056	798,656	815,408	1,051,019

Other financial data

Share information	2018	2017	2016	2015	2014
Dividend payout ratio (%)	14.9				
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1)	13.5	6.3	(59.5)	(27.7)	0.5
Share price per ordinary share at year end - £	2.17	2.78	2.25	3.02	3.94
Market capitalisation at year end - £bn	26.1	33.3	26.6	35.1	45.2
Net asset value per ordinary share - £	3.86	4.10	4.18	4.66	5.12

Capital ratios					
Return on average total assets (2)	0.2%	0.1%	(0.8%)	(0.2%)	(0.3%)
Return on average total equity (3)	3.7%	2.0%	(10.2%)	(2.9%)	(4.6%)
Return on average ordinary shareholders equity(4)	4.0%	1.9%	(15.3%)	(4.0%)	(6.5%)
Average total equity as a percentage of average total assets	7.2%	7.0%	6.2%	6.0%	5.8%
Risk asset ratio - Tier 1 (5)	19.2%	19.7%	17.7%	19.1%	13.2%
Risk asset ratio - Total (5)	23.4%	23.9%	22.9%	24.7%	17.1%

Notes:

(1) Basic fully diluted earnings per ordinary share in 2018 is 13.5p. There was no diluted impact in any other year.

(2) Return on average total assets represents profit/(loss) attributable to ordinary shareholders as a percentage of average total assets.

(3) Return on average total equity represents profit/(loss) attributable to equity owners expressed as a percentage of average shareholder funds.

(4) Return on average ordinary shareholders equity represents profit/(loss) attributable to ordinary shareholders expressed as a percentage of average ordinary shareholders equity.

(5) 2018, 2017, 2016, 2015 and 2014 are calculated on a PRA transitional basis.

Business review

Financial summary continued

Segmental summary income statements

	Personal & Ulster		CPB					
	UK PB	Ulster Bank RoI	Commercial Banking	Private Banking	RBS International	NatWest Markets	Central items & other	Total RBS
2018	£m	£m	£m	£m	£m	£m	£m	£m
Net interest income	4,283	444	2,855	518	466	112	(22)	8,656
Non-interest income	771	166	1,747	257	128	1,330	347	4,746
Total income	5,054	610	4,602	775	594	1,442	325	13,402
Other expenses	(2,428)	(490)	(2,288)	(456)	(260)	(1,213)	(224)	(7,359)
Strategic costs	(226)	(22)	(155)	(21)	(9)	(238)	(333)	(1,004)
Litigation and conduct costs	(213)	(71)	(44)	(1)	9	(153)	(809)	(1,282)
Operating expenses	(2,867)	(583)	(2,487)	(478)	(260)	(1,604)	(1,366)	(9,645)
Impairment (losses)/releases	(339)	(15)	(147)	6	2	92	3	(398)
Operating profit/(loss)	1,848	12	1,968	303	336	(70)	(1,038)	3,359
Return on equity (1)	24.7%	0.5%	12.1%	15.4%	24.4%	(2.0%)	nm	5.0%
Cost:income ratio (2)	56.7%	95.6%	52.8%	61.7%	43.8%	111.2%	nm	71.7%
Third party customer asset rate (3)	3.36%	2.41%	3.02%	2.89%	2.15%	nm	nm	nm
Third party customer funding rate	(0.31%)	(0.20%)	(0.32%)	(0.25%)	(0.09%)	nm	nm	nm
Average interest earning assets	160,641	24,834	145,318	20,547	27,266	27,851	30,500	436,957
2017								
Net interest income	4,342	421	3,074	464	325	203	158	8,987
Non-interest income	940	183	1,605	214	64	847	293	4,146
Total income	5,282	604	4,679	678	389	1,050	451	13,133
Other expenses	(2,618)	(451)	(2,354)	(445)	(202)	(1,528)	47	(7,551)
Strategic costs	(433)	(56)	(195)	(45)	(9)	(436)	(391)	(1,565)
Litigation and conduct costs	(190)	(169)	(53)	(39)	(8)	(237)	(589)	(1,285)
Operating expenses	(3,241)	(676)	(2,602)	(529)	(219)	(2,201)	(933)	(10,401)
Impairment (losses)/releases	(207)	(60)	(390)	(6)	(3)	174	(1)	(493)
Operating profit/(loss)	1,834	(132)	1,687	143	167	(977)	(483)	2,239
Return on equity (1)	20.4%	(5.0%)	9.6%	6.4%	11.2%	(9.0%)	nm	2.5%
Cost:income ratio (2)	61.4%	111.9%	54.2%	78.0%	56.3%	209.6%	nm	79.0%
Third party customer asset rate (3)	3.46%	2.38%	2.85%	2.71%	2.71%	nm	nm	nm
Third party customer funding rate	(0.16%)	(0.31%)	(0.15%)	(0.09%)	(0.02%)	nm	nm	nm
Average interest earning assets	156,077	25,214	154,553	18,799	23,930	31,231	12,533	422,337
2016								
Net interest income	4,185	409	2,903	449	303	343	116	8,708
Non-interest income	795	167	1,659	208	71	869	113	3,882
Total income	4,980	576	4,562	657	374	1,212	229	12,590
Other expenses	(2,819)	(457)	(2,515)	(511)	(169)	(2,084)	335	(8,220)
Strategic costs	(232)	(40)	(120)	(37)	(5)	(190)	(1,482)	(2,106)
Litigation and conduct costs	(622)	(172)	(435)	(1)		(550)	(4,088)	(5,868)
Operating expenses	(3,673)	(669)	(3,070)	(549)	(174)	(2,824)	(5,235)	(16,194)

Impairment (losses)/releases	(119)	113	(212)	3	(10)	(253)		(478)
Operating profit/(loss)	1,188	20	1,280	111	190	(1,865)	(5,006)	(4,082)
Return on equity (1)	11.8%	0.7%	7.3%	5.6%	13.8%	(12.5%)	nm	(20.1%)
Cost:income ratio (2)	73.8%	116.1%	66.2%	83.6%	46.5%	nm	nm	129.0%
Third party customer asset rate (3)						nm	nm	nm
Third party customer funding rate						nm	nm	nm
Average interest earning assets	144,329	25,193	144,126	16,887	22,254	37,856	8,953	399,598

Notes:

(1) RBS s CET 1 target is approximately 14% but for the purposes of computing segmental return on equity (ROE), to better reflect the differential drivers of capital usage, segmental operating profit after tax and adjusted for preference share dividends is divided by average notional equity allocated at different rates of 14% (Ulster Bank RoI), 12% (Commercial Banking), 13.5% (Private Banking - 14% prior to Q1 2018), 16% (RBS International - 12% prior to November 2017) and 15% for all other segments, of the monthly average of segmental risk-weighted assets incorporating the effect of capital deductions (RWAes). Return on equity is calculated using profit for the period attributable to ordinary shareholders.

(2) Operating lease depreciation included in income £121 million (2017 - £142 million; 2016 - £141 million).

(3) Ulster Bank Ireland DAC manages its funding and liquidity requirements locally. Its liquid asset portfolios and non-customer related funding sources are included within its net interest margin, but excluded from its third party asset and liability rates.

Business review

Income	2018 £m	2017 £m	2016 £m
Interest receivable (1,2)	11,049	11,034	11,258
Interest payable (1,2)	(2,393)	(2,047)	(2,550)
Net interest income	8,656	8,987	8,708
Net fees and commissions	2,357	2,455	2,535
Income from trading activities	1,507	634	974
of which: Own credit adjustments	*92*	*(69)*	*154*
Other non-interest income	882	1,057	373
Non interest income	4,746	4,146	3,882
Total income	13,402	13,133	12,590

Notes:

(1) Negative interest on net loans to customers is classed as interest payable and on customer deposits is classed as interest receivable.

(2) Interest receivable and interest payable on trading assets and liabilities are included in income from trading activities.

2018 compared with 2017

- Total income increased by £269 million, or 2.0%. Excluding notable items, income decreased by £650 million, or 4.8%, primarily reflecting lower NatWest Markets income and reduced net interest income. Excluding notable items, NatWest Markets and Central items, income was stable. Notable items are detailed on page 38.

- Net interest income decreased by £331 million, or 3.7%, driven by margin pressure, active capital management in Commercial Banking, a reduction in the NatWest Markets legacy business and one-off Central items(1) in 2017.

- Net interest margin was 15 basis points lower than 2017, or 13 basis points lower excluding one-off items(1) reflecting an 8 basis points reduction relating to increased liquidity, 3 basis points from competitive pressures and 2 basis points from mix impacts.

- Structural hedges of £159 billion generated £0.9 billion of incremental net interest income for the year, compared with £1.5 billion of incremental net interest income on a balance of £149 billion in 2017.

- Non-interest income increased by £600 million, or 14.5%. Excluding notable items, non-interest income decreased by £381 million principally due to lower core NatWest Markets income driven by challenging fixed income, currencies and commodities (FICC) market conditions in Q4 2018, together with turbulence in European bond markets earlier in the year.

2017 compared with 2016

- Net interest income of £8,987 million increased by £279 million compared with 2016. The movement was principally driven by higher mortgage volumes in UK PB, up £185 million or 3.7%, and deposit re-pricing benefits in Commercial Banking, up £143 million or 6.7%, partially offset by planned balance sheet reductions in NatWest Markets.

- The net interest margin (NIM) was 2.13% for 2017, 5 basis points lower than 2016 reflecting increased liquidity, mix impacts and competitive pressures on margin.

- Structural hedges of £129 billion generated a benefit of £1.3 billion through net interest income for the year.

- Non-interest income of £4,146 million increased by £264 million, or 6.8%, compared with 2016, primarily reflecting a £185 million debt sale gain in UK PB and a £183 million increase in strategic disposals gains, partially offset by an own credit adjustment loss of £69 million compared with a gain of £180 million in 2016.

- Net fees and commissions decreased by £80 million, or 3.2%, compared with 2016 reflecting a £48 million reduction in UK PB, driven by increased cash back payments as the Reward proposition continued to grow with customer accounts 26% higher than 2016, and lower income in NatWest Markets.

- Income from trading activities, excluding own credit adjustments, decreased by £117 million, or 14.3%, compared with 2016 primarily reflecting lower income in NatWest Markets, down £247 million, or 29.8%, driven by increased losses in the legacy business. A gain of £2 million for volatile items under IFRS in 2017 compared with a charge of £510 million in 2016. This movement was broadly offset by FX losses of £183 million in 2017, compared with FX gains of £446 million in 2016, following the strengthening of sterling against the US dollar.

Note:

(1) One-off items in 2017 include central interest releases of £30 million and £44 million relating to Capital resolution.

Business review

Financial summary continued	Statutory analysis (1,2)			Non-statutory analysis		
	2018	2017	2016	2018	2017	2016
Operating expenses	£m	£m	£m	£m	£m	£m
Staff expenses	4,122	4,676	5,124	3,649	3,923	4,482
Premises and equipment	1,383	1,565	1,388	1,241	1,218	1,297
Other administrative expenses	3,372	3,323	8,745	1,787	1,710	1,619
Strategic costs (1)				1,004	1,565	2,106
Litigation and conduct costs (2)				1,282	1,285	5,868
Administrative expenses	8,877	9,564	15,257	8,963	9,701	15,372
Depreciation and amortisation	731	808	778	645	684	705
Write down of other intangible assets	37	29	159	37	16	117
Operating expenses	9,645	10,401	16,194	9,645	10,401	16,194

Notes:

(1) On a statutory, or GAAP, basis, strategic costs are included within staff, premises and equipment, and other administrative expenses.

(2) On a statutory, or GAAP, basis, litigation and conduct costs are included within other administrative expenses.

2018 compared with 2017

- Operating expenses decreased by £756 million, or 7.3%, primarily reflecting £561 million lower strategic costs and a £192 million reduction in other expenses, with litigation and conduct costs remaining broadly stable despite the US Department of Justice charge in the year. Excluding £86 million of one-off VAT releases in 2017, other expenses decreased by £278 million, or 3.6%, and FTEs reduced by 5.8%.

- Strategic costs of £1,004 million included: a £195 million direct charge in NatWest Markets relating to both the wind-down of the legacy business and ongoing development of the core business infrastructure; £177 million in respect of implementing ring-fencing requirements; £171 million of technology costs; a £133 million charge relating to the reduction in our property portfolio; a £76 million net settlement relating to the International Private Bank pension scheme; with the remaining charge largely relating to restructuring costs to achieve cost efficiencies across front and back office operations.

- Litigation and conduct costs of £1,282 million largely comprises the £1,040 million charge relating to the settlement with the Department of Justice and a £200 million charge relating to Payment Protection Insurance, partially offset by a £241 million provision release relating to a RMBS litigation indemnity.

- The cost:income ratio of 71.7% is elevated due to the inclusion of the net RMBS related conduct charge. Excluding this item the cost:income ratio, including strategic costs, would be 65.7%.

2017 compared with 2016

- Total operating expenses of £10,401 million were £5,793 million, or 35.8%, lower than 2016 reflecting a £4,583 million reduction in litigation and conduct costs, a £541 million reduction in restructuring costs, and a £669 million, or 8.1%, reduction in other operating expenses. Excluding VAT recoveries of £86 million (2016 - £227 million), other operating expenses have reduced by £810 million for the year, ahead of our £750 million targeted reduction, with approximately 45% of the total cost reduction delivered across UK PB, Ulster Bank RoI, CPB (comprising the reportable segments Commercial Banking and Private Banking, RBSI and the NatWest Markets core business, adjusting for transfers (1).

- Excluding staff restructuring costs in 2017 and 2016 of £753 million and £642 million respectively, staff costs of £3,923 million were £559 million, or 12.5%, lower than 2016 underpinned by a 6,600, or 8.5%, reduction in FTEs.

- Restructuring costs of £1,565 million included: a £303 million charge relating to the reduction in the property portfolio; a £319 million charge in NatWest Markets principally relating to the run-down and closure of the legacy business; £221 million relating to the business previously described as Williams & Glyn; £194 million in respect of implementing ring-fencing requirements; and a £73 million net settlement relating to the RBS Netherlands pension scheme.

- Litigation and conduct costs of £1,285 million included: additional charges in respect of settlement with Federal Housing Finance Agency (FHFA) and the California State Attorney General and additional RMBS related provisions in the US; a further provision in relation to settling the 2008 rights issue shareholder litigation; an additional £175 million PPI provision; and a £169 million provision in Ulster Bank RoI for customer remediation and project costs relating to tracker mortgages and other legacy business issues.

Note:

(1) Refer to footnotes on pages 27 and 28.

Business review

Financial summary continued **Impairments**	2018 £m	2017 £m
Loans - amortised cost (1)	319,800	321,633
ECL provisions (2)	3,368	3,814
Impairment losses		
ECL charge (3,4)	398	493
ECL loss rate - annualised (basis points)	12.45	15.33
Amounts written off	1,494	1,210

Notes:

(1) The table above summarises loans and related credit impairment measures on an IFRS 9 basis at 31 December 2018 and on an IAS 39 basis at 31 December 2017.

(2) 2018 ECL provisions in the above table are provisions on loan assets only. Other ECL provisions not included, relate to cash, debt securities and contingent liabilities, and amount to £28 million, of which £5 million was FVOCI.

(3) 2018 ECL charge balance in the above table included a £3 million charge relating to other financial assets, of which a £1 million charge related to assets at FVOCI; and a £31 million release related to contingent liabilities.

(4) 2017 comprises loan impairment losses of £530 million and releases on securities of £37 million.

2018 compared with 2017

- A net impairment loss of £398 million, 13 basis points of gross customer loans, decreased by £95 million, or 19.3%, compared with 2017 primarily reflecting lower single name charges in Commercial Banking, partially offset by fewer provision releases in UK PB and NatWest Markets.

- In addition, we took an additional £101 million charge in Q3 2018 reflecting the more uncertain economic outlook and a net £60 million impairment charge in Ulster Bank RoI principally in relation to ongoing sales from our loan book to further reduce the level of non performing loans. Underlying credit conditions remained benign during 2018.

Business review

Tax

	2018	2017	2016
	£m	£m	£m
Tax charge	(1,208)	(731)	(1,107)
UK corporation tax rate	19.00%	19.25%	20.00%

2018 compared with 2017

- The tax charge for the year ended 31 December 2018 is higher than the UK statutory tax rate reflecting the impact of the banking surcharge, non-deductible bank levy and conduct charges for which no tax relief has been recognised. These factors have been offset partially by adjustments in respect of prior years.

2017 compared with 2016

- The tax charge for the year ended 31 December 2017 is higher than the UK statutory tax rate reflecting the impact of the banking surcharge, non-deductible bank levy and conduct charges for which no tax relief has been recognised, a reduction in the carrying value and impact of UK tax rate changes on deferred tax balances. These factors have been offset partially by the release of tax provisions that reflect the reduction of exposures in countries where RBS is ceasing operations.

Business review

Financial summary continued

Summary consolidated balance sheet as at 31 December 2018

	2018 £m	2017 £m	2016 £m
Assets			
Cash and balances at central banks	88,897	98,337	74,250
Trading assets	75,119	85,991	86,660
Derivatives	133,349	160,843	246,981
Loans to banks - amortised cost	12,947	11,517	12,238
Loans to customers - amortised cost	305,089	310,116	307,778
Settlement balances	2,928	2,517	5,526
Other financial assets	59,485	51,929	48,637
Other assets	16,421	16,806	16,586
Total assets	694,235	738,056	798,656
Liabilities			
Bank deposits	23,297	30,396	13,675
Customer deposits	360,914	361,316	343,498
Trading liabilities	72,350	81,982	84,536
Derivatives	128,897	154,506	236,475
Other financial liabilities	42,798	33,170	30,782
Subordinated liabilities	10,535	12,722	19,419
Other liabilities	8,954	14,871	20,867
Total liabilities	647,745	688,963	749,252
Total equity	46,490	49,093	49,404
Total liabilities and equity	694,235	738,056	798,656
Tangible net asset value per ordinary share (1)	287p	288p	294p

Note:

(1) Tangible net asset value per ordinary share represents tangible equity divided by the number of ordinary shares in issue

From 1 January 2018, the Group adopted IFRS 9 Financial Instruments . IFRS 9 changed the balance sheet classification categories from IAS 39. Refer to Note 33 for full details of the impact of IFRS 9 on the Group s balance sheet.

- Total assets of £694.2 billion as at 31 December 2018 were down £43.8 billion, 5.9%, compared with 31 December 2017. This was primarily driven by reductions in trading assets and derivatives reflecting the wind-down of the legacy business and management of the leverage exposure.

- Cash and balances at central banks decreased by £9.4 billion, 9.6%, to £88.9 billion representing liquidity management, the payment of the settlement with the US Department of Justice and the pension contribution in the year.

- Trading assets decreased by £10.9 billion, 12.6%, to £75.1 billion and trading liabilities decreased by £9.6 billion, 11.7%, to £72.4 billion mainly due to the wind-down of the legacy business in NatWest Markets.

- Movements in the value of derivative assets, down £27.5 billion, 17.1%, to £133.3 billion, and liabilities, down £25.6 billion, 16.6% to £128.9 billion, due to trading volumes and valuations in NatWest Markets.

- Loans to customers - amortised cost, decreased by £5.0 billion, 1.6%, to £305.1 billion including £3.5 billion in Commercial Banking due to active capital management, activity and approximately £0.7 billion, in Ulster Bank RoI, primarily in relation to the sale of a portfolio of non-performing loans.

- Other financial assets includes debt securities, equity shares and other loans and increased by £7.6 billion, 14.6%, to £59.5 billion, primarily reflecting increases in the liquidity portfolio driven by increased customer surplus within in the ring-fenced banks, reduced funding requirement and net term issuance in NatWest Markets.

- Other assets includes property, plant & equipment, deferred tax, assets of disposal groups, accruals, deferred income and pension scheme surpluses and decreased by £0.4 billion, 2.3% to £16.4 billion.

- Bank deposits decreased by £7.1 billion, 23.4%, to £23.3 billion, with decreases relating to funding management including a £5 billion payment in relation to the Bank of England Term Funding Scheme participation.

- Customer deposits decreased by £0.4 billion, 0.1% to £360.9 billion with increases in UK PB, Ulster Bank RoI and Private Banking offset by decreases in Commercial Banking and RBS International.

- Other financial liabilities included customer deposits at fair value through profit and loss and debt securities and increased by £9.6 billion, 29.0%, to £42.8 billion primarily including issuances in the year of covered bonds and MREL in the year.

- Subordinated liabilities decreased by £2.2 billion, 17.2% to £10.5 billion, primarily as a result of redemptions of £2.0 billion reflecting on-going liability management activities.

- Other liabilities included deferred awards, deferred income, notes in circulation and accruals and decreased by £5.9 billion, 39.8% to £9.0 billion mainly due to the reduction in provisions in the year, primarily in relation to the settlement with the US Department of Justice.

- Owners equity decreased by £2.6 billion, 5.4%, to £45.7 billion, primarily driven by preference share redemptions and the pension contribution in the year offset by the £2.1 billion profit for the year.

Cash flow

Refer to page 185 for the consolidated cash flow statement.

Business review

Segment performance

UK Personal Banking

Income statement	2018 £m	2017 £m	2016 £m
Net interest income	4,283	4,342	4,185
Non-interest income	771	940	795
Total income	5,054	5,282	4,980
Other costs	(2,428)	(2,618)	(2,819)
Strategic costs	(226)	(433)	(232)
Litigation and conduct costs	(213)	(190)	(622)
Operating expenses	(2,867)	(3,241)	(3,673)
Impairment losses	(339)	(207)	(119)
Operating profit	1,848	1,834	1,188
Performance ratios			
Return on equity (1)	24.7%	20.4%	11.8%
Net interest margin	2.67%	2.78%	2.90%
Cost:income ratio	56.7%	61.4%	73.8%

Note:

(1) Return on equity is based on segmental operating profit after tax adjusted for preference dividends divided by average notional equity based on 15% of the monthly average of segmental RWAes, assuming 28% tax rate.

Capital and balance sheet	2018 £bn	2017 £bn	2016 £bn
Loans to customers (amortised cost)			
- personal advances	7.6	7.1	6.9
- mortgages	138.4	136.9	128.0
- cards	4.0	4.0	4.2
Total loans to customers (amortised cost)	150.0	148.0	139.1
Loan impairment provisions	(1.1)	(1.0)	(1.1)
Net loans to customers	148.9	147.0	138.0
Total assets	171.0	166.6	157.3
Customer deposits	145.3	142.2	133.4
Risk-weighted assets	34.3	31.5	37.6

Business review

Segment performance continued

2018 compared with 2017

- UK PB now has 5.9 million regular mobile app users, 17% higher than 2017, with 71% of our active current account customers being regular digital users. Total digital sales increased by 19% representing 44% of all sales. 61% of mortgage switching is now done digitally, compared with 51% in 2017. 57% of personal unsecured loans sales are via the digital channel, with digital volumes 31% higher.

- Total income was £228 million, or 4.3%, lower reflecting £124 million lower debt sale gains and a £33 million transfer of the Collective Investment Funds business to Private Banking in Q4 2017(2). Excluding these items, income was £71 million, or 1.4%, lower, including a £28 million reduction in overdraft fees following changes implemented in H2 2017, which included increasing the number of customer alerts. Net interest income of £4,283 million decreased by 1.4% as balance growth and deposit margin benefits were offset by lower mortgage new business margins, with net interest margin down by 11 basis points to 2.67%.

- Operating expenses decreased by £374 million, or 11.5%. Excluding strategic, litigation and conduct costs, operating expenses were £190 million, or 7.3%, lower driven by reduced back-office operations costs and lower headcount reflecting continued operating efficiencies, partially offset by increased technology investment spend as we continue to build our digital capability.

- Impairments were £132 million higher driven by fewer provision releases and lower recoveries following debt sales in prior years, as well as increased provisioning requirements under IFRS 9. The underlying default rate remained broadly stable with asset growth also accounting for an element of the uplift.

- Net loans to customers increased by 1.3% to £148.9 billion. The business has maintained a prudent approach to risk and pricing in a very competitive market, with gross new mortgage lending in 2018 at £30.4 billion, 1.9% lower than 2017. Mortgage market share was maintained at 11.3% supporting a stock share of around 10%. Momentum continued in personal advances, increasing by 7.0%.

- Customer deposits increased by £3.1 billion, or 2.2%, as growth continued across current accounts and savings.

- RWAs increased by £2.8 billion, or 8.9%, principally due to modelling changes on mortgages and unsecured loans.

2017 compared with 2016

- Operating profit was £1,834 million compared with £1,188 million in 2016. The increase was driven by higher income, lower litigation and conduct charges and lower other operating expenses, partially offset by higher restructuring costs, largely relating to the reduction in our property portfolio and costs associated with the business previously described as Williams & Glyn(1), and higher impairments. Return on equity increased to 20.4% from 11.8% in 2016.

- Total income of £5,282 million was £302 million, or 6.1%, higher than 2016, principally reflecting strong balance growth, savings re-pricing benefits and a £185 million debt sale gain. Net interest margin declined by 12 basis points to 2.78% driven by lower mortgage margins, asset mix and reduced current account hedge yield, partially offset by savings re-pricing benefits from actions taken in 2016 and following the Q4 2017 base rate increase.

- Operating expenses decreased £432 million, or 11.8%, to £3,241 million. Excluding litigation and conduct costs, and restructuring costs, other operating expenses decreased by £201 million, or 7.1%, to £2,618 million compared with 2016 driven by a £42 million, or 6.8%, reduction in staff costs, with headcount down 8.4%, and a £53 million reduction in operational costs following process and productivity improvements in service operations and re-integration benefits in respect of the business previously described as Williams & Glyn(1). Cost:income ratio improved to 61.4% in 2017 compared with 73.8% in 2016.

- The net impairment charge of £207 million, or 14 basis points of gross customer loans, reflected continued benign credit conditions. 2017 had lower recoveries partly as a result of the debt sales undertaken, compared with 2016. Defaults remained at very low levels across all portfolios compared to historic trends, although slightly higher than in 2016.

- Net loans and advances increased by £9.0 billion, or 6.5%, to £147.0 billion as UK PB continued to deliver support for personal banking customers. Gross new mortgage lending in 2017 was £31.0 billion with market share of new mortgages at approximately 12%, resulting in stock share of approximately 10% at 31 December 2017 compared with 9.7% at 31 December 2016.

- Customer deposits increased by £8.8 billion, or 6.6%, to £142.2 billion, driven by strong personal current account growth.

Notes:

(1) The business previously described as Williams & Glyn was integrated in to the reportable operating segment UK PB in Q4 2017 and prior year comparatives re-presented.

(2) UK PB Collective Investment Funds (CIFL) business was transferred to Private Banking on 1 October 2017. CIFL Business transfer included total income of £33 million and total expenses of £9 million. Comparatives were not re-presented.

Business review

Ulster Bank RoI

Income statement	2018 m	2017 m	2016 m	2018 £m	2017 £m	2016 £m
Net interest income	502	480	501	444	421	409
Non-interest income	187	209	100	166	183	167
Total income	689	689	704	610	604	576
Other costs	(553)	(516)	(559)	(490)	(451)	(457)
Strategic costs	(25)	(64)	(48)	(22)	(56)	(40)
Litigation and conduct costs	(79)	(192)	(211)	(71)	(169)	(172)
Operating expenses	(657)	(772)	(818)	(583)	(676)	(669)
Impairment losses	(17)	(68)	138	(15)	(60)	113
Operating profit/(loss)	15	(151)	24	12	(132)	20
Average exchange rate - /£				1.130	1.142	1.224
Performance ratios						
Return on equity (1)	0.5%	(5.0%)	0.7%	0.5%	(5.0%)	0.7%
Net interest margin	1.79%	1.67%	1.62%	1.79%	1.67%	1.62%
Cost:income ratio	95.6%	111.9%	116.1%	95.6%	111.9%	116.1%

Note:

(1) Return on equity is based on segmental operating profit after tax adjusted for preference share dividends divided by average notional equity (based on 14% of the monthly average of segmental risk-weighted assets incorporating the effect of capital deductions (RWAes)), assuming a nil tax rate.

Capital and balance sheet	2018 bn	2017 bn	2016 bn	2018 £bn	2017 £bn	2016 £bn
Loans to customers (amortised cost)						
- mortgages	16.0	17.3	17.9	14.4	15.4	15.3
- other lending	5.9	6.0	5.6	5.2	5.2	4.8
Total loans to customers (amortised cost)	21.9	23.3	23.5	19.6	20.6	20.1
Loan impairment provisions	(0.9)	(1.3)	(1.4)	(0.8)	(1.1)	(1.2)
Net loans to customers	21.0	22.0	22.1	18.8	19.5	18.9
Total assets	28.1	27.7	28.2	25.2	24.6	24.1
Funded assets	28.1	27.6	28.0	25.2	24.5	24.0
Customer deposits	20.1	19.1	17.7	18.0	16.9	15.2
Risk-weighted assets	16.4	20.2	21.1	14.7	18.0	18.1
Spot exchange rate - /£				1.117	1.127	1.168

Business review

Segment performance continued

2018 compared with 2017

- Ulster Bank RoI continued to strengthen its digital proposition in 2018 through enhancements to digital and mobile customer offerings. 69% of our active personal current account customers are choosing to bank with us through digital channels. A faster, more convenient and secure digital application experience was introduced for customers who are applying for current accounts and personal loans and further enhancements were made to the mobile app during the year. Mobile payments and transfers increased 36% compared with 2017, reflecting the continued customer migration from physical to digital channels.

- Total income was in line with 2017. Net interest income increased by £23 million, or 5.5% (22 million, or 4.6% in euro terms), supporting a 12 basis point increase in net interest margin, primarily driven by an improving asset mix, lower cost of deposits and a one-off funding benefit in 2018, partially offset by a reduction in income on free funds. Non-interest income decreased by £17 million, or 9.3% (22 million, or 10.5% in euro terms), principally due to a lower number of non-recurring benefits and a reduction in fee income.

- Operating expenses decreased by £93 million, or 13.8% (115 million, or 14.9% in euro terms), principally due to a £98 million (113 million) reduction in litigation and conduct costs and £34 million (39 million) lower strategic costs. 2018 included a £71 million (79 million) conduct and litigation provision for customer remediation and project costs associated with legacy business issues. Other expenses increased by £39 million (37 million) primarily reflecting: the investment made into strengthening the risk, compliance and control environment; increased bank levies and regulatory fees; and higher spend on technology and innovation.

- A net impairment charge of £15 million (17 million) reflects a charge associated with a non-performing loan sale partially offset by observable improvements in the performance of the loan portfolio.

- Net loans to customers reduced by £0.7 billion, or 3.6% (1.0 billion, or 4.5% in euro terms), principally reflecting the sale of a portfolio of non-performing loans of £0.5 billion (0.6 billion) in 2018 and a continued reduction in the tracker mortgage book.

- Customer deposits increased by £1.1 billion, or 6.5% (1.0 billion, or 5.2% in euro terms), supporting a reduction in the loan:deposit ratio to 105% from 115%.

- RWAs reduced by £3.3 billion, or 18.3% (3.8 billion, or 18.8% in euro terms), principally reflecting the impact of the non-performing loan sale and an improvement in credit metrics.

2017 compared with 2016

- An operating loss of £132 million (151 million) compared with a £20 million (24 million) profit in 2016 primarily reflecting a £173 million (206 million) increase in impairment losses, largely relating to a change in the non performing loan strategy to allow for further portfolio sales.

- Total income of £604 million (689 million) was £28 million, or 4.9% higher than in 2016 (15 million, or 2.1% lower in euro terms). Adjusted income(1) of £607 million (693 million) was £34 million, or 5.9% higher than 2016 (8 million, or 1.1%, lower than 2016 in euro terms), primarily reflecting a £46 million (53 million) reduction in income on free funds, partially offset by one off items, higher lending income and reduced funding costs. Net interest margin of 1.67% was 5 basis points higher than 2016 reflecting a combination of improved deposit and loan margins, one-off income adjustments and successful deleveraging measures in 2016 which have reduced the concentration of low yielding loans.

- Operating expenses were £676 million, an increase of £7 million, or 1.0% compared with 2016 (a decrease of   46 million, or 5.6% to   772 million in euro terms). Excluding restructuring, and litigation and conduct costs, other operating expenses(1) decreased £6 million or 1.3% to £451 million; in euro terms other operating expenses of   516 million were   43 million, or 7.7%, lower than 2016. This was primarily due to continued progress in the delivery of cost saving initiatives, as evidenced by a 12.9% reduction in headcount, and lower pension costs. Cost:income ratio was 111.9% compared with 116.1% in 2016.

- A litigation and conduct provision of £169 million (192 million) related to customer remediation and project costs associated with legacy business issues.

- A net impairment loss of £60 million (68 million) compared with a £113 million (138 million) release in 2016. The movement was driven by a provision relating to a change in the non performing loan strategy to allow for further portfolio sales, gains associated with asset disposals in 2016 and refinements to the mortgage provision models in 2017. REILs were £3.3 billion, 5.7% lower than 2016 (3.7 billion, 9.8% in euro terms) reflecting credit quality improvements.

- Ulster Bank RoI gross new lending was £2.3 billion in 2017, up 7.2% compared with 2016 (2.6 billion, up 3.4% in euro terms).

- RWAs remained stable at £18.0 billion, compared with £18.1 billion in 2016. In euro terms, RWAs of   20.2 billion reduced by   0.9 billion, or 4.3%, compared with 2016.

Note:

(1) Excludes: Income - own credit adjustments of £3 million debit (2016 - £3 million credit); Costs - restructuring costs of £56 million (2016 - £40 million) and litigation and conduct costs of £169 million (2016 - £172 million).

Business review

Segment performance continued

Commercial Banking

	2018	2017	2016
Income statement	£m	£m	£m
Net interest income	2,855	3,074	2,903
Non-interest income	1,747	1,605	1,659
Total income	4,602	4,679	4,562
Other costs	(2,288)	(2,354)	(2,515)
Strategic costs	(155)	(195)	(120)
Litigation and conduct costs	(44)	(53)	(435)
Operating expenses	(2,487)	(2,602)	(3,070)
Impairment losses	(147)	(390)	(212)
Operating profit	1,968	1,687	1,280
Performance ratios			
Return on equity (1)	12.1%	9.6%	7.3%
Net interest margin	1.96%	1.99%	2.01%
Cost:income ratio	52.8%	54.2%	66.2%

	2018	2017	2016
Capital and balance sheet	£bn	£bn	£bn
Loans to customers (amortised cost)			
- SME & mid-corporates	30.0	30.7	32.2
- large corporates	18.3	21.5	22.9
- real estate	20.7	22.9	24.8
- specialised business	18.0	19.7	20.5
- business banking	6.7	6.7	6.3
- commercial	7.0	8.3	8.8
- other	2.0	3.3	0.4
Total loans to customers (amortised cost)	102.7	113.1	115.9
Loan impairment provisions	(1.3)	(1.5)	(1.2)
Net loans to customers (amortised cost)	101.4	111.6	114.7
Total assets	166.4	173.5	174.6
Customer deposits (excluding repos)	134.4	136.2	134.0
Loan:deposit ratio (excluding repos)	76%	82%	86%
Risk-weighted assets	78.4	83.3	83.2

Notes:

(1) Return on equity is based on segmental operating profit after tax adjusted for preference dividends divided by average notional equity based on 11% of the monthly average of segmental RWAe, assuming 28% tax rate.

(2) Comparisons with prior periods are impacted by preparations for ring-fencing, including the transfer of shipping and other activities from NatWest Markets, the transfer of whole business securitisations and Relevant Financial Institutions and other activities to NatWest Markets and the transfer of the funds and trustee depositary business to RBS International. The net impact of transfers on 2017 would have been to reduce income

by £246 million, operating expenses by £10 million, impairments by £72 million, net loans to customers by £5.3 billion, customer deposits by £1.2 billion and RWAs by £2.2 billion. There is an additional £1.4 billion reduction in 2017 net loans to customers as a result of 2018 asset reclassifications under IFRS9. The variances in the commentary below have been adjusted for the impact of these items excluding net interest margin.

Business review

Segment performance continued

2018 compared with 2017 (comparisons adjusted for transfers)

- Commercial Banking successfully launched the Bankline mobile app in the Apple app store, whilst our lending journey now enables customers to apply digitally for loans of up to £750,000 through a self-service application process. This is the largest value offered by a UK commercial bank, giving customers rapid, digital access to funding decisions, with approximately 50% of loan applications given a decision in principle in under 24 hours. In Commercial Banking, 91% of current accounts and 68% of loans under £50,000 were originated digitally.

- Total income increased by £169 million, or 3.8%, reflecting asset disposal and fair value gains of £169 million, compared with a £64 million loss in 2017, partially offset by lower lending. Net interest margin decreased by 3 basis points to 1.96% primarily reflecting reclassification of net interest income to non-interest income under IFRS 9, the impact of transfers and asset margin compression, partially offset by higher funding benefits from deposit balances.

- Operating expenses decreased by £105 million, or 4.1%. Excluding strategic, litigation and conduct costs, operating expenses were £39 million, or 1.7%, lower reflecting continued operating model simplification.

- Impairments decreased by £171 million, or 53.8%, mainly reflecting lower single name charges.

- Net loans to customers decreased by £3.5 billion, or 3.3%, principally driven by significant active capital management reductions, with underlying lending growth of £3.5 billion in Commercial Banking. At Q3 2018, we announced an additional £2 billion of growth funding to help British businesses prepare for the Brexit transition, bringing the total commitment to £3 billion.

- Customer deposits decreased by £0.6 billion, or 0.4%, supporting a broadly stable loan:deposit ratio of 76%.

- RWAs decreased by £2.7 billion, or 3.3%, driven by £10.5 billion of gross RWA reductions associated with active capital management, partially offset by model updates, underlying business growth and partial reinvestment of gross RWA reductions through refinancing to existing clients under our revised pricing framework in Commercial Banking.

2017 compared with 2016

- Operating profit of £1,687 million compared with £1,280 million in 2016, primarily reflecting a reduction in litigation and conduct costs. Excluding litigation and conduct costs, and restructuring costs, operating profit of £935 million, was £100 million, or 5.4%, higher than 2016, reflecting lower operating expenses and higher income, partially offset by higher impairments.

- Total income increased by £117 million, or 2.6%, to £4,679 million primarily reflecting increased volumes in targeted segments and re-pricing benefits on deposits. Net interest margin decreased by 2 basis points as active re-pricing of assets and deposits has been more than offset by wider asset margin pressure in a low rate environment.

- Operating expenses decreased by £468 million to £2,602 million. Excluding litigation and conduct costs, and restructuring costs, other operating expenses of £2,247 million, were £127 million, or 5.3%, lower than 2016, reflecting operating model simplification and productivity improvements, including a 13.9% reduction in front office headcount. The cost:income ratio improved to 54.2% compared with 66.2% in 2016.

- Net impairment losses of £390 million were £178 million higher than 2016, reflecting a small number of single name impairments.

- Net loans and advances decreased by £3.1 billion to £111.6 billion. Adjusting for transfers(2) of £1.8 billion, net loans and advances decreased by £4.9 billion to £109.8 billion, compared with 2016, as growth in targeted segments has been more than offset by active capital management of the lending book.

- RWAs increased by £0.1 billion to £83.3 billion. Adjusting for transfers(2) of £1.5 billion, RWAs decreased by £1.4 billion, or 1.7%, to £81.8 billion compared with 2016 reflecting active capital management of the lending book, achieving £12.5 billion of gross RWA reductions.

Notes:

(1) Excluding restructuring costs, and litigation and conduct costs.

(2) Shipping and other activities, which were formerly in Capital Resolution, were transferred from NatWest Markets on 1 October 2017, including net loans and advances to customers of £2.6 billion and RWAs of £2.1 billion. Commercial Banking transferred whole business securitisations and relevant financial institution s (RFI) to NatWest Markets during December 2017, including net loans and advances to customers of £0.8 billion and RWAs of £0.6 billion. Comparatives were not re-presented for these transfers.

Business review

Segment performance continued

Private Banking

	2018	2017	2016
Income statement	£m	£m	£m
Net interest income	518	464	449
Non-interest income	257	214	208
Total income	775	678	657
Other costs	(456)	(445)	(511)
Strategic costs	(21)	(45)	(37)
Litigation and conduct costs	(1)	(39)	(1)
Operating expenses	(478)	(529)	(549)
Impairment releases/(losses)	6	(6)	3
Operating profit	303	143	111
Performance ratios			
Return on equity (1)	15.4%	6.4%	5.6%
Net interest margin	2.52%	2.47%	2.66%
Cost:income ratio	61.7%	78.0%	83.6%

	2018	2017	2016
Capital and balance sheet	£bn	£bn	£bn
Loans to customers (amortised cost)			
- personal	2.0	2.3	2.3
- mortgages	8.9	8.2	7.0
- other	3.4	3.0	2.9
Total Net loans to customers (amortised cost)	14.3	13.5	12.2
Total assets	22.0	20.3	18.6
Assets under management (2)	19.8	21.5	17.0
Customer deposits	28.4	26.9	26.6
Loan:deposit ratio	50%	50%	46%
Risk-weighted assets	9.4	9.1	8.6

Notes:

(1) Return on equity is based on segmental operating profit after tax adjusted for preference dividends divided by average notional equity based on 13.5% (14% prior to Q1 2018) of the monthly average of segmental RWAes, assuming 28% tax rate.

(2) Comprises assets under management, assets under custody and investment cash.

(3) Comparisons with prior periods are impacted by the transfer of the Collective Investment Fund business from UK PB and by the transfers of Coutts Crown Dependency and the International Client Group Jersey to RBS International. The net impact of the transfers on 2017 would have been to increase income by £24 million and operating expenses by £15 million and reduce net loans to customers by £0.1 billion, customer deposits by £0.5 billion and assets under management by £0.7 billion. The variances in the commentary below have been adjusted for the impact of these

transfers excluding net interest margin.

Business review

Segment performance continued

2018 compared with 2017 (comparisons adjusted for transfers)

- Approximately 60% of clients bank with us digitally and 94% of clients positively rate our Coutts24 telephony service. Private Banking also recently launched Coutts Connect, a social platform which allows clients to network and build working relationships with one another.

- Total income increased by £73 million, or 10.4%, largely due to increased lending, higher funding benefits from deposit balances and higher investment income. Net interest margin increased by 5 basis points as higher deposit income was partially offset by asset margin pressure.

- Operating expenses decreased by £66 million, or 12.1%. Excluding strategic, litigation and conduct costs, operating expenses decreased by £4 million, or 0.8% driven by operating model efficiencies.

- A net impairment release of £6 million largely reflects a £9m release in Q4 2018 due to data quality improvements.

- Net loans to customers increased by £0.9 billion, or 6.7%, primarily in mortgages.

- Customer deposits increased by £2.0 billion, or 7.6%, mainly due to higher personal client account balances.

- Assets under management decreased by £1.0 billion, or 4.8%, reflecting market movements partially offset by new business inflows of £0.6 billion.

- Private Banking manages a further £6.7 billion of assets under management on behalf of RBS Group which sit outside of Private Banking. Total assets under management overseen by Private Banking have decreased by 5.7% to £26.5 billion as a result of market movements partially offset by net new business.

- RWAs increased by £0.3 billion, or 3.3%, relative to 6.7% growth in net loans to customers.

2017 compared with 2016

- Operating profit increased by £32 million, or 28.8%, to £143 million compared with 2016 and return on equity increased from 5.6% to 6.4%. Excluding litigation and conduct costs, and restructuring costs, adjusted operating profit of £227 million was £78 million, or 52.3%, higher than 2016 primarily reflecting lower other operating expenses and higher income. Adjusted return on equity(1) increased to 11.3% from 7.8% in 2016.

- Total income increased by £21 million to £678 million. Adjusting for transfers(2) of £9 million, total income increased by £12 million to £678 million due to increased lending volumes and an £8 million gain on a property sale, partially offset by ongoing margin pressure. Net interest margin fell 19 basis points to 2.47% reflecting the competitive market and low rate environment.

- Operating expenses decreased by £20 million to £529 million. Excluding litigation and conduct costs, and restructuring costs, adjusted operating expenses of £445 million decreased by £66 million, or 12.9%, compared with 2016 largely reflecting management actions to reduce costs, including an 11.8% reduction in front office headcount. The cost:income ratio improved to 78.0% from 83.6% in 2016.

- Net loans and advances of £13.5 billion were £1.3 billion, or 10.7%, higher than 2016 principally driven by growth in mortgages.

- Assets under management were £4.5 billion higher than 2016 at £21.5 billion. Adjusting for transfers(2) of £2.1 billion, assets under management were £2.4 billion, or 14.4%, higher than 2016 at £21.5 billion, reflecting both organic growth and favourable market conditions.

- RWAs of £9.1 billion were £0.5 billion, or 5.8%, higher than 2016 primarily due to increased mortgage lending.

Notes:

(1) Excluding restructuring costs, litigation and conduct costs and write down of goodwill.

(2) The UK PB Collective Investment Funds (CIFL) business was transferred from UK PB on 1 October 2017, including total income in Q4 2017 of £11 million and assets under management of £3.3 billion. Private Banking transferred Coutts Crown Dependencies (CCD) to RBS International during Q4 2017, including total income of £2 million and assets under management of £1.2 billion. Comparatives were not re-presented for these transfers.

Business review

Segment performance continued

RBS International

Income statement	2018 £m	2017 £m	2016 £m
Net interest income	466	325	303
Non-interest income	128	64	71
Total income	594	389	374
Other costs	(260)	(202)	(169)
Strategic costs	(9)	(9)	(5)
Litigation and conduct costs	9	(8)	
Operating expenses	(260)	(219)	(174)
Impairment releases/(losses)	2	(3)	(10)
Operating profit	336	167	190
Performance ratios			
Return on equity (1)	24.4%	11.2%	13.8%
Net interest margin	1.71%	1.36%	1.36%
Cost:income ratio	43.8%	56.3%	46.5%

Capital and balance sheet	2018 £bn	2017 £bn	2016 £bn
Loans to customers (amortised cost)			
- corporate	10.2	5.7	6.2
- mortgages	2.7	2.7	2.6
- other	0.4	0.3	
Total Net loans to customers (amortised cost)	13.3	8.7	8.8
Total assets	28.4	25.9	23.4
Customer deposits	27.5	28.9	25.1
Risk-weighted assets	6.9	5.1	9.5

Notes:

(1) Return on equity is based on segmental operating profit after tax adjusted for preference dividends divided by average notional equity based on 16% (12% prior to November 2017) of the monthly average of segmental RWAes

(2) Comparisons with prior periods are impacted by the transfer of the funds and trustee depositary business from Commercial Banking and by the transfer of Coutts Crown Dependency and the International Client Group from Private Banking. The net impact of the transfers on 2017 would have been to increase income by £151 million and operating expenses by £14 million, net loans to customers by £4.5 billion, customer deposits by £1.7 billion and RWAs by £1.9 billion. The variances in the commentary below have been adjusted for the impact of these transfers excluding net interest margin.

Business review

Segment performance continued

2018 compared with 2017 (comparisons adjusted for transfers)

- The RBS International mobile app has been further developed to include new functionality, allowing customers to manage their finances more effectively and has 67 thousand users, an increase of 23% from 2017. 71% of wholesale customer payments are now processed using our newly introduced international banking platform, making the payments process simpler for customers.

- Total income increased by £54 million, or 10.0%, largely driven by deposit margin benefits. Institutional Banking contributed 62% to income in 2018, with Local Banking contributing 32% and Depositary Services 6%. Net interest margin increased by 35 basis points primarily driven by the impact of transfers and a change in product mix.

- Operating expenses increased by £27 million, or 11.6%, due to £39 million higher back-office costs associated with becoming a non ring-fenced bank and £5 million of remediation costs, partially offset by lower conduct and litigation costs.

- Impairments decreased by £5 million reflecting a number of small releases and improvements in underlying lending quality.

- Net loans to customers remained broadly stable at £13.3 billion and are split: £9.2 billion within Institutional Banking, of which £2.2 billion relates to real estate exposures; and £4.1 billion in Local Banking, of which £2.7 billion relates to mortgages.

- Customer deposits decreased by £3.1 billion reflecting a large inflow of short term placements in Institutional Banking in 2017. Customer deposits represent RBS International s primary funding source and are split: £18.1 billion Institutional Banking and £9.4 billion Local Banking.

- RWAs decreased by £0.1 billion, or 1.4%, with model updates offset by business movements.

- During 2018, we repositioned our balance sheet so that excess funds previously placed with RBS Group are now deployed into funding customer assets in our new London branch. We have also established a liquidity portfolio across central and correspondent banks and sovereign bond holdings. These changes provide continuity for our customers and support compliance with incoming Basel III Liquidity Coverage Ratio rules.

2017 compared with 2016

- Operating profit of £167 million decreased by £23 million, or 12.1%, compared with 2016 and return on equity decreased to 11.2% from 13.8%, reflecting increased operational costs associated with the creation of a bank outside the ring-fence, partially offset by higher income. Adjusted return on equity(1) decreased to 12.6% from 14.2% in 2016 .

- Total income increased by £15 million, or 4.0%, to £389 million driven by increased average lending balances in 2017 and re-pricing benefits on the deposit book.

- Net loans and advances were broadly stable compared with 2016 and customer deposits increased by £3.8 billion to £28.9 billion primarily reflecting increased short term placements in the Funds sector.

- RWAs of £5.1 billion reduced by £4.4 billion, or 46.3%, compared with 2016, reflecting the benefit of receiving the Advanced Internal Rating Based Waiver on the wholesale corporate book in November 2017, in advance of becoming a bank outside the ring-fence.

- From 1st Jan 2018 RBS International will include the funds and trustee depositary business transferred from Commercial Banking, which generated around £150 million of income and £60 million of costs in 2017.

Note:

(1) Excluding restructuring costs.

Business review

Segment performance continued

NatWest Markets

Income statement	2018 £m	2017 £m	2016 £m
Net interest income	112	203	343
Non-interest income	1,330	847	869
Total income	1,442	1,050	1,212
Other costs	(1,213)	(1,528)	(2,084)
Strategic costs	(238)	(436)	(190)
Litigation and conduct costs	(153)	(237)	(550)
Operating expenses	(1,604)	(2,201)	(2,824)
Impairment releases	92	174	(253)
Operating loss	(70)	(977)	(1,865)
Analysis of income by product			
Rates	662	959	807
Currencies	432	496	581
Financing	382	456	344
Revenue share paid to other segments	(217)	(246)	(211)
Core income excluding OCA	1,259	1,665	1,521
Legacy	91	(549)	(496)
Own credit adjustments	92	(66)	187
Total income	1,442	1,050	1,212
Performance ratios			
Return on equity (2)	(2.0%)	(9.0%)	(12.5%)
Net interest margin	0.40%	0.65%	0.91%

Capital and balance sheet	2018 £bn	2017 £bn	2016 £bn
Net loans to customers (amortised cost)	8.4	9.7	13.1
Total assets	244.5	277.9	372.5
Funded assets	111.4	118.7	128.5
Customer deposits	2.6	3.3	5.1
Risk-weighted assets	44.9	52.9	69.7

Notes:

(1) The NatWest Markets operating segment should not be assumed to be the same as the NatWest Markets Plc legal entity or group.

(2) Return on equity is based on segmental operating profit after tax adjusted for preference dividends divided by average notional equity (based on 15% of the monthly average of segmental risk-weighted assets incorporating the effect of capital deductions (RWAes)), assuming 28% tax rate.

(3) Comparisons with prior periods are impacted by the transfer of shipping and other activities to Commercial Banking and the transfer of whole business securitisations and Relevant Financial Institutions from Commercial Banking in preparation for ring-fencing. The net impact of the transfers on 2017 would have been to increase income by £104 million, reduce operating expenses by £2 million, reduce the net release of impairments by £72 million and increase funded assets by £1.3 billion and RWAs by £0.4 billion. The variances in the full year commentary below have been adjusted for the impact of these transfers.

Business review

Segment performance continued

2018 compared with 2017 (comparisons adjusted for transfers)

- NatWest Markets continues to focus on customer service and is increasingly using technology to enhance the way it provides innovative financial solutions to its customers and partners. For example, FXmicropay makes it simpler for businesses operating globally to accept payments in multiple currencies, reducing costs and increasing revenues for our customers. Our success in harnessing technology has been recognised with two awards: Best in Service Globally among Corporates for Algorithmic trading in the 2018 Euromoney FX Survey and Best Order Management award in the Profit & Loss 2018 Digital FX Awards.

- Total income increased by £288 million, or 25.0%, primarily reflecting lower disposal losses in the legacy business and a £165 million indemnity insurance recovery, partially offset by lower income in the core business. The reduction in the core business was driven by challenging fixed income, currencies and commodities (FICC) market conditions in Q4 2018, together with turbulence in European bond markets earlier in the year.

- Operating expenses decreased by £595 million, or 27.1%. This reflects reductions in other expenses across both the core and legacy businesses, down £313 million to £1,213 million, lower strategic costs, down £198 million to £238 million, and reduced litigation and conduct costs, down £84 million to £153 million.

- The net impairment release decreased by £10 million to £92 million reflecting a lower level of legacy releases.

- Funded assets decreased by £8.6 billion, or 7.2%, reflecting the wind down of the legacy business.

- RWAs decreased by £8.4 billion to £44.9 billion, including RWAs for Alawwal bank of £5.9 billion. The decrease was driven by the legacy business, down £7.1 billion, in addition to reductions in the core business.

2017 compared with 2016

- An operating loss of £977 million compared with £1,865 million in 2016. The core business operating profit increased by £427 million to £41 million reflecting lower litigation and conduct costs and higher income, partially offset by increased restructuring costs reflecting back office restructuring activity. Adjusted operating loss(1) of £264 million, compared with £1,231 million in 2016, reflecting lower adjusted costs(1) and a net impairment release of £174 million in 2017, compared with a charge of £253 million in 2016.

- Total income of £1,050 million compared with £1,212 million in 2016. In the core business, total income increased by £42 million, or 2.7%, to £1,616 million, whereas adjusted income(1) increased by £144 million, or 9.5%, to £1,665 million, principally driven by Rates as the business navigated markets well despite a lower level of customer activity than in 2016, which benefited from favourable market conditions following the EU referendum.

- Operating expenses of £2,201 million were £623 million, or 22.1%, lower than 2016, whereas adjusted operating expenses(1) of £1,528 million were £556 million, or 26.7%, lower than 2016. In the legacy business, operating expenses decreased by £238 million, or 27.5%, to £627 million, whereas adjusted operating expenses decreased significantly reflecting a 77.7% reduction in headcount as the business moved towards closure. In the core business, operating expenses decreased by £383 million, 19.5%, to £1,577 million as the business continues to drive cost reductions, where as adjusted operating expenses were £1,268 million compared to £1,320 million in 2016.

- RWAs decreased by £15.3 billion, adjusting for transfers(2), to £52.9 billion primarily reflecting reductions in the legacy business. In the core business RWAs decreased by £3.1 billion to £32.3 billion reflecting lower counterparty credit risk through mitigation activities and business initiatives. At the end of 2017 the legacy business within NatWest Markets had RWAs of £14.0 billion, excluding RBS s stake in Alawwal Bank, a reduction of £10.9 billion, adjusting for transfers, over the course of the year.

- Total assets fell by £94.6 billion to £277.9 billion, funded assets fell to £118.7 billion, a reduction of £7.3 billion, adjusting for transfers(2), mainly reflecting disposal activity.

Notes:

(1) Excludes: Income - own credit adjustments of £66 million debit (2016 - £187 million credit), strategic disposals of £26 million credit (2016 - £81 million debit). Costs - restructuring costs of £436 million (2016 - £190 million) and litigation and conduct costs of £237 million (2016 - £550 million).

(2) Shipping and other activities, which were formerly in Capital Resolution, were transferred to Commercial Banking on 1 October 2017, including total funded assets of £3.3 billion, net loans and advances to customers of £2.6 billion, and RWAs of £2.1 billion. Whole business securitisations and relevant financial institutions (RFI) were transferred from Commercial Banking during December 2017, including net loans and advances to customers of £0.8 billion, and RWAs of £0.6 billion. Comparatives were not re-presented for these transfers.

Business review

Segment performance continued

Central items & other

	2018 £m	2017 £m	2016 £m
Central items not allocated	(1,038)	(483)	(5,006)

Funding and operating costs have been allocated to operating segments based on direct service usage, the requirement for market funding and other appropriate drivers where services span more than one segment. Residual unallocated items relate to volatile corporate items that do not naturally reside within a segment.

2018 compared with 2017

- Central items not allocated represented a charge of £1,038 million in 2018, largely comprises the £1,040 million charge relating to the civil settlement with the US Department of Justice and £333 million of strategic costs, partially offset by a £241 million provision release relating to an RMBS litigation indemnity and indemnity insurance recoveries of £192 million.

2017 compared with 2016

Central items not allocated represented a charge of £483 million in 2017, compared with a £5,006 million charge in 2016, and included litigation and conduct costs of £589 million, compared with £4,088 million in 2016. Treasury funding costs were a charge of £58 million, compared with a charge of £94 million in 2016. Restructuring costs in the year included £94 million relating to the former Williams & Glyn business, compared with £1,399 million in 2016. In addition to a VAT recovery of £86 million, compared with £227 million in 2016, a £156 million gain on the sale of Vocalink and a £135 million gain in relation to the sale of EuroClear(1**)**.

Note:

(1) The total gain in relation to the sale of Euroclear was £161 million, of which £135 million central items and £26 million NatWest Markets.

Directors Remuneration Report

Letter from Robert Gillespie
Chairman of the Group Performance and Remuneration Committee

Capital strength has been a key performance measure and I am delighted that progress in this area has enabled RBS to resume dividend payments.

Dear Shareholder,

This is my second report as Chairman of the Group Performance and Remuneration Committee (the Committee) and it has proved to be another busy year. We have established additional remuneration committees for a number of RBS subsidiaries as part of our governance arrangements for ring-fencing. This will provide additional oversight of remuneration across our key legal entities before proposals are considered by the Committee.

In addition, the Committee spent time considering the latest updates to reporting regulations and the UK Corporate Governance Code (the Code). We remain strong supporters of reforms aimed at improving the effectiveness, transparency and fairness of pay structures.

Broader pay considerations

Colleague engagement In preparation for the new Code, we have taken steps to supplement our existing channels for colleagues to be heard at Board level. We have established a Colleague Advisory Panel to provide direct engagement with Board members. Amongst other strategic topics, this forum will be used to discuss executive remuneration and how it aligns with the wider company pay policy.

We believe that having an engaged and inclusive workforce is a key element of a successful business. This is why it is one of the areas included in the performance assessment for executive directors. The latest opinion survey shows engagement is at its highest level since we started measuring it and inclusion is our highest scoring category. We are now above the Global Financial Services (GFS) norms in all comparable survey categories.

Fairness and simplicity We continue to make good progress. The number of employees at RBS who believe they are paid fairly rose during the year and is significantly above the GFS norm. In the UK, our rates of pay continue to exceed the Living Wage. Over the last four years we have made improvements to starting salaries and faster progression for those on lower levels of pay.

We have also removed variable pay for a significant number of these employees and increased their fixed pay. This provides more certainty and allows employees to concentrate on customers needs. As a result of these changes, 56% of employees across the Group are rewarded through fixed pay only.

We are confident we pay our employees fairly and our policies and processes are kept under review to ensure we continue to do so.

On pensions, action was taken during the year to significantly address the deficit in the main defined benefit pension scheme. Employees are provided with a range of flexible, market-leading benefits and wellbeing support. Over 23,000 employees have chosen to participate in share plans, which provide direct alignment with the company s success and shareholders interests.

Transparency Ahead of new reporting regulations coming into force next year, we have included the Chief Executive to employee pay ratios in this report along with broader disclosures on employee remuneration. Gender and ethnicity pay gap information can be found in the Strategic Report section, as well as the steps we are taking to address the position.

Executive director pay policy

Turning to executive pay, the Directors Remuneration Policy was approved by shareholders at the 2017 AGM. No changes are being made to the policy at this time. Variable pay is delivered entirely in shares as long-term incentive (LTI) awards with no annual bonus. The Chief Executive s management team receive a similar remuneration construct.

The policy is based around a restrained pay position, with lower levels of LTI awards, reasonable performance expectations and significant shareholdings. Shares must be retained for the long-term, both during and after employment. I believe this creates a simple way of aligning executive directors interests with shareholders.

Executive director changes during 2018

Ewen Stevenson resigned as Chief Financial Officer (CFO) during the year. In line with policy, he continued to receive fixed pay until his departure date and all outstanding LTI awards were forfeited. No payment was made in lieu of notice.

After a successful period as interim CFO, Katie Murray was appointed to the Board as CFO from 1 January 2019. Katie s pay has been set at a competitive level within the approved remuneration policy. The pension rate is 10% of salary. This is in line with the rate applicable to the wider RBS workforce and recognises emerging best practice.

Performance and pay decisions

The latest results demonstrate the business is building on its return to profitability in 2017 with a clear plan to deliver sustainable returns for shareholders. Income has risen and our core tier 1 capital ratio remains strong, exceeding our long-term target.

Remuneration structures are designed to support our strategic aims, one of which is building a safe and sustainable business. Capital strength has been one of the key performance measures for executive directors and I am delighted that progress in this area has enabled RBS to resume paying dividends to our ordinary shareholders.

Ross McEwan will be granted an LTI award in early 2019, following an assessment of performance over 2018. The assessment determined that overall performance had been strong, particularly in relation to capital and people measures, but the Committee applied a modest downwards adjustment of around 6% to the maximum grant as customer performance was not at the desired level.

Performance has also been assessed for the LTI award granted to the Chief Executive in 2016, following the end of the performance period in 2018. The award will vest at 27.5% reflecting improvements in capital strength and employee engagement, but with no vesting in areas where performance did not meet targets, such as total shareholder return. No discretion was exercised in determining the outcome. Full details of the assessments against the objectives and the award levels can be found in this report.

In terms of pay decisions for our broader employees, the bonus pool for 2018 is £335 million, which is around 2% lower than 2017. The size of the bonus pool in recent years reflects our transition to a smaller and simpler bank, staffed by highly capable and engaged people. Immediate cash bonuses continue to be limited to £2,000.

Looking ahead

One of the main priorities for the Committee during 2019 will be preparing the executive directors   remuneration policy for its renewal at the 2020 AGM. The new Code requirements and engagement with our stakeholders will be part of that process. The Committee will also look at how it can enhance its existing role in considering wider workforce remuneration.

I would like to thank my fellow Committee members for their guidance and constructive challenge during the year and I look forward to considering how we can continue to develop remuneration practices at RBS for the benefit of all our stakeholders.

Robert Gillespie

Chairman of the Group Performance and Remuneration Committee

14 February 2019

Directors Remuneration Report at a glance

The at a glance section summarises the key features of the executive directors remuneration policy and arrangements for 2018 and 2019.

Summary of the remuneration policy for executive directors approved at the 2017 AGM

Alignment with strategy of building a strong, simple and fair bank	Alignment via shares between executives and shareholders	Alignment with the growing external consensus on executive pay
Built around a restrained pay position for executives, with variable pay delivered entirely in LTI awards.	Aligns executives with shareholders predominantly through holding shares, both during and after employment.	Reduced complexity and quantum, in line with the Executive Remuneration Working Group and Government announcements on executive pay.
Performance assessed on factors that executive directors would reasonably be expected to achieve, encouraging safe and secure growth.	The maximum value of LTI award is smaller and we have significantly increased the value of shares that executive directors need to hold.	Reflects emerging investor guidelines with their common themes of restraint, meaningful shareholdings and flexibility of pay design.
Quantum and structure of pay appropriate for a smaller, safer bank.	LTI awards will be adjusted for underperformance or risk failings and are released over eight years with malus and clawback for a long-term view of performance.	Continues to provide transparency between performance and reward, with performance measured against pre-set objectives and disclosed each year.

Summary of pay construct		Chief Executive	Chief Financial Officer (from 2019)
Fixed pay	Base salary	£1,000,000	£750,000
	Fixed Share Allowance	100% of salary	100% of salary
	Pension	35% of salary	10% of salary
Maximum LTI award (delivered in shares)		175% of salary	200% of salary

Vesting period and conditions	• Pre-grant and pre-vest performance assessments along with risk and stakeholder underpins. • Vests in equal amounts between years three to seven after grant. • 12 months retention period following each vesting. • Malus and clawback provisions apply. • No pro-rating of LTI awards will apply in agreed good leaver circumstances.	
Expected average vesting	80% of maximum over time.	
Shareholding requirement	400% of salary	250% of salary

Summary of 2018 performance assessments for the Chief Executive

2018 highlights

- Operating profit before tax of £3,359 million and CET1 ratio remains strong at 16.2%, exceeding our long-term target.
- The major legacy issues have now been resolved and 2018 saw the payment of the first dividend in 10 years.
- Arrangements for ring-fencing have been implemented on time.
- Employee engagement is at its highest level yet and there have been continued improvements in culture and inclusion scores.
- Customer service results, however, are not consistently where they need to be to achieve our long-term ambition.

Performance assessment for vesting of 2016 LTI award

Performance assessed against pre-set objectives for 2016 2018, covering:

- Economic Profit 0% vesting.
- Total Shareholder Return 0% vesting.
- Safe & Secure Bank 12.5% vesting.
- Customers & People 15% vesting.

The performance assessment resulted in a total vesting percentage of 27.5% due to progress in capital strength, customer trust scores and employee engagement. The other elements did not meet the required performance levels for vesting. Full details can be found in the annual report on remuneration.

Performance assessment for grant of 2019 LTI award

Performance assessed against pre-set objectives for 2018, covering core areas of:

- Finance & Business capital and RoTE targets met, ring-fencing structure in place.
- Risk & Operations risk culture target met, control environment not met in full.
- Customers Net Promoter Score was mixed, some but not all segments on target.
- People & Culture engagement, culture and diversity performance all meeting targets.

While overall performance was strong, the Committee concluded that a reduction of around 6% to the maximum grant would be appropriate for the Chief Executive to recognise that some areas were not fully at the desired level. A further assessment will take place prior to any vesting taking place. Full details can be found in the annual report on remuneration.

Directors Remuneration Report at a glance

Executive directors who have left/joined during the year

Ewen Stevenson

Ewen Stevenson stepped down from the Board on 30 September 2018 and left RBS on 30 November 2018. He did not receive any payment in lieu of notice and all outstanding LTI awards were forfeited on his final date of employment.

Katie Murray

Katie Murray was appointed to the Board as Chief Financial Officer with effect from 1 January 2019. Benchmarking was undertaken for the role and the Committee agreed a remuneration package that was considered to be positioned appropriately compared to peers both in terms of fixed pay and projected total compensation. Remuneration includes a base salary at £750,000 per annum and a fixed share allowance of £750,000 per annum. Pension funding has been set at 10% of salary. This rate of 10% is the same as the pension rate applicable to the vast majority of RBS employees and recognises emerging best practice under the UK Corporate Governance Code and investor guidelines.

Any variable pay awards for performance year 2019 onwards (to be made in early 2020) will be delivered as LTI awards, with a maximum award of 200% of salary. For performance year 2018, a period prior to appointment to the Board, variable pay will continue to be awarded in line with arrangements in place at that time.

Remuneration outcomes for executive directors in 2018

Ross McEwan

Ewen Stevenson (as at 30 September 2018) (1)

(1) Ewen Stevenson also received fixed pay of £317,708 in 2018 for the period after stepping down from the Board until he left RBS on 30 November 2018.

Shareholding requirements

Ross McEwan

Ewen Stevenson (as at 30 September 2018)

Timing of payments for 2019 awards to Ross McEwan

Variable pay awarded to Katie Murray in 2019 for performance year 2018, a period prior to appointment to the Board, will be subject to deferral over seven years and retention periods in line with regulatory requirements.

Directors   Remuneration Policy

Key features of the remuneration policy for executive directors

The Directors   Remuneration Policy was approved by shareholders at the AGM on 11 May 2017. The policy will apply until the 2020 AGM unless changes are required which mandate a revised policy be submitted to shareholders for approval. There are no changes requiring shareholder approval at this time. The table below summarises the key features of the policy for executive directors. In the event of any conflict the approved policy, which can be found under the Board and Governance section of rbs.com, takes precedence over the information set out below.

Element of pay	Operation	Maximum potential value
Salary		
To provide a competitive level of fixed cash remuneration and aid recruitment and retention of high performing individuals.	Paid monthly in cash and reviewed annually. The rates for 2019 are: • Chief Executive £1,000,000 • Chief Financial Officer £750,000	Future salary increases will not normally be greater than the average salary increase for RBS employees over the period. Other than in exceptional circumstances, the salary will not increase by more than 15% over the course of this policy.
Fixed share allowance		
To provide fixed pay that reflects the skills and experience required and responsibilities for the role.	A fixed allowance paid entirely in shares. The shares vest immediately subject to any deductions for tax and are released in equal tranches over a three year retention period.	An award of shares with an annual value of up to 100% of salary at the time of award.
Benefits		
To provide a range of flexible and market competitive benefits that are valued and assist individuals in carrying out their duties effectively.	Executive directors can select from a range of standard benefits including: company car; private medical cover; life assurance; and critical illness insurance. Executive directors are also entitled to travel assistance in connection with company business including the use of a car and driver. RBS will meet the cost of any tax on the benefit. Further benefits including relocation costs may be offered in line with market practice. RBS may also put in place certain security arrangements for executive directors.	Set level of funding for standard benefits (currently £26,250) which is subject to review. The total value of benefits provided is disclosed each year in the annual report on remuneration.

Pension		
To encourage planning for retirement and long-term savings.	Provision of a monthly cash pension allowance based on a percentage of salary. Opportunity to use the cash to participate in a defined contribution pension scheme. • Chief Executive 35% of salary • Chief Financial Officer 10% of salary	While the 2017 policy allows for pension funding of 35% of salary for existing executive directors and up to 25% of salary for new executive directors, a rate of 10% was agreed on the appointment of the new Chief Financial Officer to align with the UK Corporate Governance Code. The 10% rate is in line with the wider workforce.
Variable pay award		
(long-term incentive) To support a culture where individuals are rewarded for the delivery of sustained performance, taking into account RBS s strategic objectives. Delivery in shares with the ability to apply malus adjustments and clawback further supports longer-term alignment with shareholders interests.	LTI awards are subject to: • a one year pre-grant performance period; • a pre-vest performance assessment at the end of a three year period, with vesting taking place from years three to seven after grant; • malus prior to vesting and clawback which applies for seven (and potentially up to ten) years from the date of award; and • a 12 month post-vesting retention period. Performance will be assessed in the areas of Finance, Risk & Operations, Customers and People & Culture to determine whether the executive has achieved what would reasonably have been expected in the circumstances. Risk & Control and Stakeholder Perception underpins will also apply.	The maximum award for current directors at the time of grant is capped at: • Chief Executive - 175% of salary. • Chief Financial Officer - 200% of salary. Prior performance will be taken into account when determining the value of the award at the time of grant. The vesting level of the award can vary between 0% and 100% of the original number of shares granted, dependent on the delivery of sustained performance.
Shareholding requirements		
To ensure executive directors build and continue to hold a significant shareholding over the long-term.	Unvested shares from LTI awards will count on a net of tax basis towards meeting the shareholding requirement once the pre-vest performance assessment has taken place. When the applicable retention period has passed, the executive directors can dispose of up to 25% of the net of tax shares received until the shareholding requirement is met.	• Chief Executive - 400% of salary. • Chief Financial Officer - 250% of salary.

Directors Remuneration Policy

Remuneration for the Chairman and non-executive directors

Element of pay	Operation	Maximum potential value
Fees To reflect the required skills, experience and time commitment.	Fees are paid monthly in cash and reviewed regularly. Additional fees may be paid for new Board Committees provided these are not greater than fees payable for the existing Board Committees. No variable pay is provided so that the Chairman and non-executive directors can maintain appropriate independence.	The rates for the year ahead are set out in the annual report on remuneration. Other than in exceptional circumstances, fees will not increase by more than 15% over the course of the policy.
Benefits To provide a level of benefits in line with market practice.	Reimbursement of reasonable out-of-pocket expenses. The Chairman and non-executive directors are entitled to travel assistance in connection with company business including the use of a car and driver. RBS will meet the cost of any tax due on the benefit. Other benefits may be offered in line with market practice. The Chairman receives private medical cover.	The value of the private medical cover provided to the Chairman and any other benefits will be in line with market rates and disclosed in the annual report on remuneration.

Other policy elements

Provision	Operation
Recruitment policy	The policy on the recruitment of new directors aims to be competitive and to structure pay in line with the framework applicable to current directors, recognising that some adjustment to quantum within that framework may be necessary to secure the preferred candidate. A buy-out policy exists to replace awards forfeited or payments foregone which is in line with regulatory requirements. The Committee will minimise buy-outs wherever possible and ensure they are no more generous than, and on substantially similar terms to, the original awards or payments they are replacing.
Notice and termination provisions	Executive directors As set out in executive directors service contracts, RBS or the executive director is required to give 12 months notice to the other party to terminate the employment. There is discretion for RBS to make a payment in lieu of notice (based on salary only) which is released in monthly instalments. The executive director must take all reasonable steps to find alternative work and any remaining instalments will be reduced as appropriate to offset income from any such work. Chairman and non-executive directors

The Chairman and the non-executive directors do not have service contracts, they have letters of appointment. They do not have notice periods and no compensation would be paid in the event of termination of appointment, other than standard payments payable for the period served up to the termination date.

On an annual basis, all directors stand for election or re-election by shareholders at the company s AGM. Non-executive directors appointed prior to 2017 do not have a set term as the letter of appointment operates on a rolling basis. From 2017 onwards, new non-executive directors have been appointed for an initial term of three years, commencing from the first election by shareholders. At the end of this period, further terms may be agreed, subject to an overall maximum tenure of nine years. The non-executive directors with terms of appointment that will currently expire unless otherwise renewed at the end of three years are: Mark Seligman (2020 AGM), Dr Lena Wilson (2021 AGM) and Patrick Flynn (2022 AGM).

Legacy arrangements

RBS can continue to honour any previous commitments or arrangements entered into with current or former directors that may have different terms, including terms agreed prior to appointment as an executive director.

Treatment of outstanding employee share plan awards on termination

On termination, share awards will be treated in accordance with the relevant plan rules as approved by shareholders. Under the remuneration policy approved by shareholders at the 2017 AGM, LTI awards made in 2018 onwards will not be subject to pro rating for time in good leaver circumstances, for the reasons set out below.

RBS is unusual in having no annual bonus, and bonus awards would typically not be subject to pro rating for time. In addition, regulatory requirements can effectively prevent LTI awards being granted in the year of joining. The combination of these factors means executives at RBS could potentially receive no variable pay award either for the year of joining or in the final year of employment. This is not consistent with our aim of creating significant alignment with shareholders.

Removal of pro rating enables executive directors to receive an appropriate level of variable pay for the period that they work and helps to ensure executives are motivated up to the point of departure and beyond. It creates higher levels of shareholding for up to eight years post departure meaning executives can be held accountable for, and are financially exposed to, the long-term consequences of their actions.

Individuals will only qualify for good leaver treatment if they leave due to ill-health, injury, disability, death, retirement (as agreed with RBS), redundancy, the employing company ceasing to be a member of RBS, transfer of the employing business, or any other reason if, and to the extent, the Committee decides in any particular case. If good leaver treatment does not apply then LTI awards will be forfeited on leaving.

Directors Remuneration Policy

Approach to the new UK Corporate Governance Code (the new Code)

Ahead of its formal application in 2019, detailed analysis of the new Code was undertaken in 2018 with findings presented to the Committee. The majority of the changes are in line with existing practice at RBS. A summary of the main provisions is set out below. The Committee will continue to monitor and reflect on best practice for these new requirements.

Area	Description of provision	RBS position
Workforce remuneration and alignment with culture	Remuneration Committee to review workforce remuneration and related policies, and the alignment of incentives and rewards with culture, taking these into account when setting the policy for executive director remuneration.	The Committee already considers papers on the broader employee proposition, for example, the group-wide remuneration and deferral policy, annual pay outcomes including diversity information, and the annual Sharesave offer for employees. The Financial Reporting Council s (FRC) guidance asks Remuneration Committees to consider How do workforce incentives support our culture and encourage the desired behaviours? The removal of sales incentives for front-line employees in recent years is a good example where desired culture and remuneration proposals have been considered together at RBS. The Committee will review relevant culture developments and consider the potential impact on remuneration policy. The aim is to assist the Board in its responsibility to monitor how well culture is being embedded across the organisation and the role that remuneration plays in that.
Post-employment shareholding requirements	Remuneration Committees should develop a formal policy for post-employment shareholding requirements encompassing both unvested and vested shares.	Under the current policy, executive directors automatically retain a significant number of shares after they leave. Shares from fixed share allowances continue to be held for at least three years regardless of the reason for leaving and LTI awards held by good leavers will continue to be released up to eight years post departure. The Committee will consider whether a more formal post-employment shareholding requirement should be introduced when the new directors remuneration policy is due to be submitted to shareholders at the 2020 AGM.
Pension contribution rates	The pension contribution rates for executive directors should be aligned with those available to the workforce.	The FRC guidance recognises that it may not be appropriate to reduce the pension provision for existing directors. However, good practice is for the rates to move over time to be aligned with those of the wider workforce. As noted earlier in this report, RBS has already taken steps in this area with the pension rate for the new Chief Financial Officer set at 10% of salary, rather than the 25% of salary allowed for under the policy for new executive directors. The rate at 10% is the same as that applicable to the majority of the wider workforce. The position for the Chief Executive will be reviewed as

		part of the renewal of the directors remuneration policy at the 2020 AGM.
Factors in determining executive director policy	Remuneration Committees should address the following criteria when determining executive director policy: clarity; simplicity; risk; predictability; proportionality; and alignment to culture.	The Committee already takes many of these factors into account when determining executive director policy. The current policy was designed around themes of simplicity, alignment with company strategy and culture, and ensuring rewards are supported by sustainable, risk-adjusted long-term performance.
		In terms of predictability, it is worth noting that variable pay at RBS is already constrained by the 1:1 regulatory cap on grant. The new long-term incentive construct is based around lower awards levels with more predictable outcomes. In addition, there are discretionary underpins which provide scope to adjust outcomes for significant risk, stakeholder or reputational matters not already captured in the performance assessment.
Engagement with colleagues	Remuneration Committee to report on its work including engagement with colleagues on executive remuneration.	In 2018, we established a Colleague Advisory Panel, chaired by a designated non-executive director. The aim of the Panel is to provide direct engagement between colleagues and Board members. The Panel includes colleagues who volunteered to be involved, existing representatives from trade union bodies and works councils, our colleague-led networks and junior management teams.
		Along with a broad range of strategic topics, the Panel will also be used to discuss executive remuneration and how it aligns with the wider company pay policy. Further information on the Panel can be found in the Strategic Report and the Report of the directors.
Discretion and use of malus and clawback	Remuneration schemes and policies should enable the use of discretion to override formulaic outcomes and include provisions to withhold or recover payments.	There is broad discretion under RBS remuneration arrangements and the Committee has used discretion in the past to apply downwards adjustment to the formulaic outcome of LTI vestings.
		The remuneration policy and share plan rules contain malus and clawback provisions to adjust or recover awards where appropriate. Details of the process and the circumstances in which RBS can apply malus and clawback are set out on page 92.

Directors Remuneration Report

Wider workforce remuneration policy

Consistent with our executive remuneration principles, the aim is to deliver a simple and transparent pay policy which promotes the long-term success of RBS. The policy supports a culture where individuals are rewarded for delivering sustained performance in line with risk appetite and for demonstrating the right conduct and behaviours.

Employees are provided with salary and pension funding and certain roles are eligible for benefit funding and variable pay awards. Further details on the policy and remuneration levels for 2018 including pay ratios can be found later in this report.

Making RBS a great place to work

RBS is committed to providing four key things: a fulfilling job; fair pay; excellent training and a good leader.

Fulfilling job

The aim is for every colleague to have a clear and fulfilling job that connects to our purpose. Each colleague is set clear goals and objectives that reflect RBS s overall strategy. Progress is reviewed throughout the year.

Wellbeing is essential for people to bring the best of themselves to work. A range of measures are provided to support good physical, mental, social and financial health. There is also an Employee Assistance Programme where employees can access confidential advice, support and short-term counselling.

Flexible working is offered where this is possible and appropriate. This allows colleagues to explore working patterns with their line manager and select a more flexible approach to work that meets their current needs.

Inclusion and diversity is another key element of creating a great place to work and also understanding the needs of our customers. RBS supports a variety of colleague-led groups that help influence strategy and employees also undertake unconscious bias training and mandatory annual inclusion training.

The inclusion category in our colleague opinion survey is the highest scoring category. Targets are in place to improve the proportion of women and ethnic minority leaders across all business areas and RBS is on track to meet these aspirations. Inclusion targets are also part of the measures that impact executive remuneration.

In June 2018, RBS was awarded the Employer of the Year award at the Women in Finance Awards.

Fair Pay

RBS is committed to providing a fair wage for the role performed and also being very clear on how pay works. Employees are provided with flexibility in terms of how they wish to receive pay to suit their personal circumstances.

Fairness is built around a number of themes. A full pay review is undertaken each year for all salary ranges. Pay is compared against the external market so that pay and benefits are competitive. RBS is a fully accredited Living Wage Employer in the UK and our rates of pay continue to exceed the Living Wage Foundation Benchmarks.

RBS has also implemented a more transparent approach by moving more employees to published salary ranges. Improvements have been made to starting salaries with faster progression to the rate for the job. Investment in pay levels in recent years has focused mostly on junior employees, while not increasing fixed pay for executive directors.

RBS has also removed front-line incentives and variable pay for large numbers of employees, with an increase to fixed pay instead. This provides greater certainty for these employees and allows them to focus fully on providing the best service for customers.

We are confident that we pay our employees fairly and keep our HR policies and processes under review to ensure we do so.

Flexible benefits are provided allowing employees to change pension contributions and choose from a range of protection, healthcare and lifestyle options. Employees in the UK and Republic of Ireland can also participate in employee share plans and over 23,000 currently do so.

The number of employees at RBS who believe they are paid fairly increased during 2018 and is significantly above the Global Financial Services Norm.

Excellent training

RBS offers a number of ways for colleagues to learn and develop. This includes technical training, continuing professional development and further education qualifications on the job. Support is also provided for personal development. This helps employees serve customers well and also assists colleagues with their career aspirations.

RBS remains committed to embedding a strong service mindset through Service Excellence training which sits at the heart of achieving our ambition to be number 1 for customer service, trust and advocacy.

RBS continues to work closely with the Chartered Banker Institute and Chartered Banker Professional Standards Board to improve professional standards across the industry.

A Good Leader

RBS is continuing to develop great leaders and supporting the development of talent across the Group. Part of this commitment is delivering and embedding our flagship leadership programme Determined to lead (Dtl). It teaches the skills to lead, manage and coach people so they make positive behaviour changes and improve their performance. By the end of 2018, around 11,000 leaders had completed their Dtl training.

Gender and ethnicity pay gaps

The latest gender and ethnicity pay gap reporting for RBS can be found in the Our Colleagues section of the Strategic Report contained herein.

Listening to colleagues

In 2018 a more frequent approach to listening to our workforce was developed. This provides more opportunities to improve by assessing colleague sentiment and feedback, and checking progress in making RBS a great place to work.

Our colleague opinion survey provides everyone with the opportunity to have a say on what it feels like to work at RBS. Feedback in terms of engagement and leadership has a direct impact on executive pay. A survey by the Banking Standards Board, an independent body, is also used to help raise standards of behaviour and competence across the UK banking sector.

Regular engagement takes place with colleagues and representative bodies throughout the year. Board members visit business areas to hear directly from colleagues and there are regular townhall meetings and online forums to facilitate question and answer sessions with senior executives.

In 2018, a new Colleague Advisory Panel was established to enhance the colleague voice at Board level and a meet the Board event took place for the first time following the AGM.

Annual Report on Remuneration

The sections audited by the company s auditors, Ernst and Young LLP, are as indicated.

Single total figure of remuneration for executive directors for 2018 (audited)

	Ross McEwan		Ewen Stevenson (5)	
	2018	2017	2018	2017
	£000	£000	£000	£000
Salary	1,000	1,000	600	800
Fixed share allowance (1)	1,000	1,000	600	800
Benefits (2)	117	113	20	26
Pension (3)	350	350	210	280
Total fixed remuneration	2,467	2,463	1,430	1,906
Annual bonus	n/a	n/a	n/a	n/a
Long-term incentive award (4)	1,111	1,024	-	1,418
Total remuneration	3,578	3,487	1,430	3,324

Notes:

(1) The value of the fixed share allowance is based on 100% of salary and, as part of fixed remuneration, it is not subject to any performance conditions.

(2) Includes standard benefit funding of £26,250 with the remainder for Ross McEwan in 2018 being travel assistance in connection with company business (£72,220), relocation expenses (£15,493) consisting of a flight allowance and assistance with tax return preparation, and home security arrangements (£2,676).

(3) The executive directors receive a monthly cash allowance to help fund pension arrangements but do not participate in the company s defined benefit pension schemes. The executive directors can choose to participate in the company s defined contribution pension arrangements.

(4) The 2018 value relates to an LTI award granted in 2016. Performance has been assessed over the three year period to 31 December 2018 as set out below resulting in 487,285 shares due to vest in two equal tranches in March 2020 and March 2021. No discretion was exercised by the Committee as a result of share price appreciation or depreciation over the performance period. The estimated value above is £11,013 higher than the value of 487,285 shares at the time of grant, as a result of the share price rising from £2.2574 to £2.28 over the period.

(5) Reflects remuneration paid to Ewen Stevenson for the period to 30 September 2018, the date he stepped down from the Board.

2016 LTI award final assessment of performance measures (audited)

An assessment of performance of each relevant element was provided by internal control functions and PwC assessed relative Total Shareholder Return (TSR) performance against a peer group of comparator banks.

Performance Measures (and weightings)	Performance for minimum vesting	Vesting at minimum	Performance for maximum (100%) vesting	Actual Performance		Vesting outcome	Weighted Vesting %
Economic Profit (25%)	(£200 million)	25%	£800 million	(£1,275 million)		0%	0%
Relative TSR (25%)	TSR at median	20%	TSR at upper quartile	Below lower quartile		0%	0%
Safe & Secure Bank (25%)	*Vesting between 0% - 100%**					50%	12.5%
CET1 ratio (12.5%)	CET1 ratio target: 13% or above			CET1 ratio: 16.2%	100%		
Cost:income ratio (12.5%)	Cost:income ratio target: 57% or below			Cost:income ratio: 72%	0%		
Customers & People (25%) Split across advocacy, trust and employee engagement	*Vesting between 0% - 100%**					60%	15%
Net Promoter Score (NPS) (7.5%)	NPS target: Gap to number 1 of 2.3			NPS Gap to number 1 of 18.7	0%		
Net Trust Score (NTS) (5%)	NTS target: NatWest 63, RBS 50			NTS: NatWest 64, RBS 25	50%		
Engagement Index (EI) (12.5%)	EI target: 1 point above Global Financial Services (GFS) norm			EI: 4 points above GFS norm	100%		
Final vesting outcome							27.5%

* Vesting in the Safe & Secure and Customers & People categories can be qualified by Committee discretion taking into account changes in circumstances over the period, the margin by which individual targets have been missed or exceeded, and any other relevant factors.

Economic Profit was defined as profit after tax and preference share charges less tangible net asset value multiplied by the cost of equity. The companies in the relative TSR group for this award were: Barclays, Lloyds, HSBC, Standard Chartered, BBVA, BNP Paribas, Crédit Agricole, Santander, Société Générale, Unicredit, ING, Intesa San Paolo and Nordea Bank.

Final outcome and discretionary underpin

If the Committee considers that the vesting outcome calibrated in line with the performance conditions above does not reflect underlying financial results, or if the Committee is not satisfied that conduct and risk management during the performance period has been effective, then the terms of the award allow for an underpin to be used to reduce the vesting.

In making its final judgement, the Committee considered the overall context of performance, noting significant improvements in capital strength and employee engagement over the period and the Trust score for NatWest also meeting the target. Relative TSR, the cost:income ratio and customer performance were not at the required level. The Committee also considered the potential impact of the US Department of Justice charge on the Economic Profit outcome. Input was also received from the Board Risk Committee on risk performance. Taking all circumstances into account, the Committee determined that no further adjustment was necessary under the discretionary underpin.

Annual Report on Remuneration

2016 LTI vesting amounts included in the total remuneration table (audited)

LTI awards were granted in March 2016. The award held by Ewen Stevenson lapsed on 30 November 2018, his final date of employment. The performance period ended on 31 December 2018 and the performance conditions have been assessed as set out on the previous page. While performance has been assessed, the shares will not vest until March 2020 and March 2021 and remain subject to employment conditions.

Ross McEwan

Performance category	% vesting	Maximum shares (1)	Shares due to vest	Estimated value (2)
Economic Profit	0%	442,987		
Relative TSR	0%	442,987		
Safe & Secure Bank	50%	442,987	221,493	
Customers & People	60%	442,987	265,792	
Maximum shares for performance assessment (1)		1,771,948		
Outcome following performance assessment (27.5% vesting)			487,285	£1,111,010

Notes:

(1) The maximum number of shares for the performance assessment is calculated in line with the underlying award structure, however the actual number of shares received will never exceed the number of shares capped under the approved policy and the regulatory maximum at the time of grant. Each performance category can vest up to 100% of salary at grant as shown above. For the 2016 award, the number of shares capped at grant was 1,187,207 and therefore the vesting outcome falls within the cap.

(2) Based on a RBS share price of £2.28, the average over the three month period from October to December 2018.

2017 LTI awards to executive directors current assessment

The table represents an early indication of the potential vesting outcome as at 31 December 2018. Details of the final performance assessment against targets at the end of the three year period and any use of discretion will be disclosed in the 2019 remuneration report. The Committee may consider the proximity of legacy items to the executive directors when assessing the vesting level.

Performance category	Measure	Weighting	Target	2017 LTI award current assessment
Economic Profit	Economic Profit (total Bank)	25%	Targets set based on spot economic profit in FY2019 with vesting range from 25% up to 100% for performance ahead of Strategic Plan	Broadly tracking in range for vesting
Relative TSR	Relative Total Shareholder Return	25%	Relative TSR performance between median and upper quartile against comparator group results in vesting between 20% and 100%.	Currently upper quartile, which would result in full vesting

Safe & Secure Bank	Cost:income ratio	12.5%	C:I ratio significant progress to 56%	Vesting under the Safe & Secure and Customers & People categories will be qualified by Committee discretion taking into account the margin by which targets have been missed or exceeded and any other relevant factors	C:I ratio is broadly in range for vesting
	CET1 ratio	12.5%	CET1 ratio target of >= 13%		CET1 ratio is in range for full vesting
Customers & People	Advocacy	7.5%	Significant progress to Number 1 in our chosen segments for customer advocacy and trust (further details below).		Some segments on track but overall behind target range
	Trust	5%			Trust broadly in range for some vesting
	Employee Engagement	12.5%	1 point above Global Financial Services Norm.		Engagement tracking above target for full vesting

Note:

(1) There are six chosen customer segments for advocacy and five customer segments for Trust. Customer advocacy is measured by Net Promoter Score and Trust is measured by the percentage of customers that trust RBS to do the right thing . Chosen segments reflect RBS s key products, service channels and customer groups. There are targets for each segment and full details will be disclosed in the 2019 report prior to any vesting. LTI awards granted in 2018 onwards have been made under the new remuneration construct. See overleaf for further details.

LTI awards granted during 2018 (audited)

	Grant date	Face value of award (£000s)	Number of shares awarded	% vesting at minimum and maximum	Performance Requirements
Ross McEwan	7 March 2018	1,575	592,328	Between 0% - 100% with no set minimum vesting	The awards were subject to a pre-grant performance assessment and a further assessment will take place at the end of three years. Full details can be found in the 2017 Report and Accounts and the performance assessment framework is also set out overleaf.
Ewen Stevenson	7 March 2018	1,440	541,557		

Note:

(1) Awards were granted as conditional share awards. The number of shares was calculated in line with the approved policy with the maximum potential award being 175% of salary for the Chief Executive and 200% of salary for the Chief Financial Officer. The award price of £2.659 was based on the average share price over five business days prior to grant. The award levels reflected a reduction of 10% to the maximum award following the pre-grant assessment of performance over 2017. Ewen Stevenson s award was forfeited on 30 November 2018, his final date of employment. For Ross McEwan, subject to the pre-vest assessment, the award will be eligible to vest in equal amounts between years 2021 and 2025. Malus provisions will apply up until vest and clawback provisions will also apply for a period of at least seven years from the date of grant. Further details on malus and clawback can be found on page 92.

Annual Report on Remuneration

Performance assessment framework for LTI awards granted from 2018 onwards

For each of the core performance areas, the Committee will consider whether the executive director has achieved what would reasonably have been expected over the relevant period. The Committee will follow a robust process to review performance against pre-set objectives relevant to RBS s strategic aims, but will apply its judgement without reference to formulaic targets and weightings. Performance will be assessed taking into account circumstances applying over the period. Risk & Control and Stakeholder Perception underpins will also apply under which the Committee, with input from the Board Risk Committee and Sustainable Banking Committee, can consider if there are any other factors that would lead to a downwards adjustment.

The majority of the performance variation will normally take place under the pre-grant assessment, with a further assessment prior to any vesting taking place. Overall, the achievement of reasonable or target performance expectations will deliver full or nearly full payout of the LTI awards, as long as executives deliver good, sustainable performance. This approach reflects the significantly reduced level of awards compared to the previous policy, creating more predictable outcomes and encouraging safe and secure growth within risk appetite. Each year, the performance factors will be determined in light of RBS s priorities for that year.

Pre-grant assessment for LTI awards to be made in 2019

Core area	Objectives for Performance Year 2018	Pre-grant assessment
Financial & Business Delivery	Reasonable performance against RoTE budget with a target of -1%.	Good financial performance for 2018. RoTE at 4.8% exceeded the target.
	CET1 ratio of 13% or more.	CET1 ratio of 16.2%, above the target.
Risk & Control	Delivery of ring-fencing requirements to meet the 1 January 2019 implementation deadline, ensuring timely remediation of issues throughout.	Ring-fencing structure delivered as planned with all key activities completed in order to ensure compliance. Reporting on activities will be provided to the PRA.
	Improve the control environment. Franchise/Function control environment to be rated 2 within appetite and achievement of self declared forecasted control environment ratings by the end of 2018.	While improvements had been made, a number of franchises and functions had still to attain the desired control environment ratings. This part of the objective was therefore not considered to have been met in full.
	Material progress towards our desired risk culture. Positive progress towards 2 (systematic) with strong tone from the top and effective action plans in place. Achieve Proactive Risk Culture rating as a minimum with no deterioration from 2017 assessment.	Risk Culture target met, with overall assessment as Positive progress towards 2 (systematic) with strong tone from the top and effective plans in place . With one exception, all areas had achieved the required Proactive Risk Culture rating.

Customers & Stakeholder	Achieve planned progress towards becoming number 1 for customer service, trust and advocacy by 2020 in chosen customer segments and brands.	Net Promoter Score performance was mixed during 2018, with three of the six customer segments on target. While the digital strategy was delivering positive customer advocacy, it was recognised that progress was not consistent enough.
People & Culture	Year-on-year improvement in engagement and leadership indices, with a one point increase in each.	Engagement score increased by three points and the leadership score increased by two points since 2017, exceeding the targets.
	Year-on-year improvement in Culture index, with a target of a one point increase.	The Culture index had continued to improve with a three point increase since 2017, exceeding the target.
	Progress towards target of at least 30% women in senior roles by 2020 in each franchise and function.	Satisfactory progress had been made. As at Q3, there had been a 7% increase since the targets were introduced at the end of 2014 and six of the business areas were already at or above the 30% target.
	Progress towards 2025 target of number of Black Asian Minority Ethnic (BAME)/non-white UK employees in the top four layers of RBS, of at least 14% (UK only).	Improvements made during the year. As at Q3, eight business areas had met their 2018 target and a further three business areas had already reached the longer term 14% target.

Outcome of the pre-grant assessment

The Committee also received advice from the Board Risk Committee and the Sustainable Banking Committee in making its final assessment. After considering all the factors above, the Committee determined that good progress had been made with strong performance particularly in relation to capital and people scores. 2018 was seen as a milestone year with a number of important legacy issues resolved, the resumption of dividends and arrangements in place for ring-fencing. Overall, the Committee considered that a 6% reduction was appropriate as customer and risk performance was not fully at the desired level. The resulting award level for the Chief Executive is set out below. As the Chief Financial Officer was appointed from 1 January 2019, the first LTI award will be granted in 2020, following an assessment of performance over 2019.

	maximum LTI award level	2019 LTI award level
Ross McEwan	£1,750,000	£1,650,000

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Pre-vest assessment for 2019 LTI awards

In addition to the pre-grant assessment detailed on the previous page, a further assessment of performance will take place at the end of three years, prior to vesting. It is intended to be a look-back at the performance year for which the LTI award was granted to consider whether anything has come to light which might call into question the original award. Once the vesting amount has been approved, employment conditions as well as malus and clawback will continue to apply.

The pre-vest assessment allows the Committee to make a balanced assessment of performance in the round rather than relying on formulaic adjustments. Adjustments will be made if there have been failures of risk management and in the event of underperformance.

Factors considered in assessing pre-vest performance

Four core questions will be considered as part of the pre-vest assessment under the themes of Finance; Customers; People; and Risk & Control.

When assessing the performance of the year for which the award was made, knowing what we know now , and taking into account all circumstances, has RBS:

- Remained safe and secure, taking into account our financial results and capital position?
- Been a good bank for customers taking into account our customer and advocacy performance?
- Operated in an environment in which risk is seen as part of the way we work and think?
- Operated in a way that reflects our stated values?

Evidence used to support the Committee s assessment of these questions will include whether there has been: a material fall in share price, net promoter scores, employee engagement or culture scores; a breach of minimum capital ratio; or a material deterioration in the risk culture or profile.

In addition, the Committee will consider the potential application of Risk & Control and Stakeholder Perception underpins following advice from the Board Risk Committee and Sustainable Banking Committee. This provides scope to consider significant risk, stakeholder or reputational matters not already captured in the performance assessment. The underpins allow the Committee to consider events arising during the period between grant and the end of year three.

In determining the final vesting level of the award, the Committee will consider both individual and collective performance which means that there may be different vesting levels by participant.

Performance Goals for 2019 (for the pre-grant assessment of LTI awards to be made in 2020)

The table below forms the basis of the pre-grant assessment for LTI awards to be made in early 2020. Further details on the 2019 goals and targets and the assessment of performance against these will be set out in the 2019 Directors Remuneration Report.

Core area	Performance Goals for 2019	Measures for assessing pre-grant performance for 2020 LTI awards
Financial & Business Delivery	Run a safe and secure bank.	Achieve planned RoTE targets for Group and NatWest Holdings (NWH Ltd).
		Achieve CET1 ratio targets for Group and NWH Ltd, with appropriate repatriation of capital to the Group.
Risk & Control	Improve or maintain control environment.	Group and NWH Ltd achievement/maintenance and embedding of desired control environment rating.
	Compliance with ring-fencing rules.	Compliance with the minimum controls for the effective management of compliance with ring-fencing rules.
	Material progress towards our desired risk culture target where risk is simply part of the way we work and think.	Positive progress on risk culture rating for Group and NWH Ltd with strong tone from the top and effective action plans in place.
Customer & Stakeholder	Increase customer advocacy for our brands and chosen customer segments.	Achievement of targets for brands against Competition and Markets Authority (CMA) rankings and Net Promoter Scores (NPS).
	Build a strong internal customer service.	Achievement of Group and NWH Ltd targets for internal NPS and Core Service Behaviour scores.
People & Culture	Provide clarity, build capability and motivate our people.	Based on employee engagement and leadership scores for Group and NWH Ltd.
	Build up and strengthen a healthy culture.	Based on the Banking Standards Board assessment and achieving the culture target for Group and NWH Ltd.
	Improve diversity across our leaders to create a more mature, inclusive culture.	Progress on the number of women in senior roles across the top three layers of the Bank.
		Progress on the number of BAME/non-white UK employees in the top four layers of RBS.

For the Chief Financial Officer, performance will be assessed in line with the framework and measures above and the performance of the Finance function will also be taken into account.

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Payments for loss of office (audited)

Ewen Stevenson resigned as Chief Financial Officer on 29 May 2018. He stepped down from the Board on 30 September 2018 and ceased to be an employee of RBS on 30 November 2018. Taking into account a range of business factors, it was agreed that Mr Stevenson could be released early from his 12 month notice period. No payment was made in lieu of notice.

In line with his contractual arrangements, Mr Stevenson continued to receive standard payments in respect of his fixed pay for the period up to his final date of employment. Payments for the period from 30 September to 30 November 2018 comprised salary (£133,333), fixed share allowance (£133,333), pension funding (£46,667) and benefit funding (£4,375), a total of (£317,708) before tax.

No other remuneration payment was made in connection with his departure and all outstanding long-term incentive awards were forfeited on his final date of employment.

Payments to past directors (audited)

Payments made to Ewen Stevenson during the year are set out above and in the total remuneration paid to executive directors table earlier in this report. There are no other payments to past directors to disclose for 2018.

Total remuneration for the Chairman and non-executive directors for 2018

As part of the implementation of ring-fencing arrangements during 2018, a number of additional Boards and Board Committees were established for key legal entities. The increase in governance structures results in additional responsibilities and time commitment, particularly for non-executive directors serving on the Group Board Risk Committee and Group Audit Committee.

Taking into account that fees for these committees had remained unchanged since 2014 and market practice by peers, the Chairman and the executive directors agreed it would be appropriate to raise the fees for the Chairman of the Group Board Risk Committee and Group Audit Committee from £60,000 to £68,000, and for members of the Group Board Risk Committee and Group Audit Committee from £30,000 to £34,000. The changes are within the 15% limit for fee increases under the directors remuneration policy and took effect from 1 October 2018.

For RBSG Board directors who also serve on the boards and committees of NatWest Holdings Limited, The Royal Bank of Scotland plc, National Westminster Bank Plc and Ulster Bank Limited, the fees below reflect membership of all five boards and their respective board committees.

Where appropriate, RBSG Board directors also received fees in respect of membership of other subsidiary company boards and committees including NatWest Markets Plc, the value of which is included in the table below. In terms of other changes during the year, the NatWest Markets Working Group was replaced by the NatWest Markets Plc Board from 1 May 2018 and the UBIDAC Board Oversight Committee was stood down at the end of October 2018.

Lena Wilson was appointed as Chair of the Colleague Advisory Panel during 2018. This is considered a key role that will enhance our existing engagement mechanisms and strengthen the colleague voice at Board level. The Panel will also meet the new requirements for workforce engagement under the UK Corporate Governance Code.

After considering the time commitment, number of meetings and responsibilities for this role, including providing regular updates to the Board, it was agreed that fees of £15,000 per annum should be paid to the Chair of the Panel with effect from 1 November 2018. The fees are equivalent to that paid to a member of our Board Oversight Committees.

Total single figure of remuneration for the Chairman and non-executive directors during 2018 (audited)

	Fees		Benefits		Total	
Chairman (composite fee)	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000
Howard Davies (1)	750	750	11	11	761	761

												Fees		Benefits		Total	
Non-executive directors (2)	Board £000	Group N&G £000	GAC £000	Group RemCo £000	Group BRC £000	Group SBC £000	TIC £000	SID £000	GRG BOC £000	UBI DAC BOC £000	Other £000	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000
Frank Dangeard (3)	60			10	12		22				148	252	135	4	3	256	138
Alison Davis	80			30		30	60					200	167	26	30	226	197
Patrick Flynn (4)	46		19		19		17					101		9		110	
Morten Friis	80		31		31							142	148	50	42	192	190
Robert Gillespie	80	15		60	19	30			15			219	197	8	11	227	208
Penny Hughes (4)	33	7			12	25			6			83	187	3	11	86	198
Yasmin Jetha (4)	27					10	10					47	65		2	47	67
Brendan Nelson (3)	80	15	62		31				30	13	53	284	216	31	23	315	239
Baroness Noakes	80	15	31		62				15	13		216	196	18	16	234	212
Mike Rogers	80			30		48						158	137	12	16	170	153
Mark Seligman	80	15		30				30	3	13		171	68	5	4	176	72
Lena Wilson (3)	80					28	17				3	128		20		148	

Notes:

(1) The benefits column for Howard Davies includes private medical cover.

(2) Non-executive directors are reimbursed expenses incurred in connection with travel and attendance at Board meetings. HMRC deems these expenses as taxable where the meetings take place at the company s main offices and RBS settles the tax on behalf of the non-executive directors.

(3) Under the Other column, Frank Dangeard received fees as Chairman of the NatWest Markets Working Group and from 1 October 2018 received a composite fee as Chairman of the NatWest Markets Plc (NWM Plc) Board. Brendan Nelson received fees as a member of the Board and Audit Committee of NWM Plc from the end of April 2018. Lena Wilson joined the Board on 1 January 2018 and received fees as Chair of the Colleague Advisory Panel from 1 November 2018.

(4) Penny Hughes stepped down from the Board on 30 May 2018. Yasmin Jetha s fees are until 30 April 2018, the date she stepped down from the RBSG Board but she continues to receive fees as a member of the boards of NatWest Holdings Limited. Patrick Flynn joined the Board on 1 June 2018.

Key to table:

Group N&G	Group Nominations and Governance Committee	TIC	Technology and Innovation Committee
GAC	Group Audit Committee	SID	Senior Independent Director
Group RemCo	Group Performance and Remuneration Committee	GRG BOC	Board Oversight Committee for the GRG business areas
Group BRC	Board Risk Committee	UBI DAC BOC	Board Oversight Committee for the Ulster Bank Ireland business
Group SBC	Sustainable Banking Committee		

Annual Report on Remuneration

Implementation of remuneration policy in 2019

Details of remuneration to be awarded in 2019 to executive directors are set out below. The salary, benefits, pension and fixed share allowance for the Chief Executive are unchanged from 2018 and arrangements for the Chief Financial Officer are in line with those announced on appointment.

The LTI pre-grant assessment has been completed and the Committee recommended to the Board who approved that an LTI award of £1,650,000 would be granted to the Chief Executive in March 2019. Details of the pre-grant assessment are set out on page 83.

Executive directors remuneration to be awarded in 2019

	Salary	Standard benefits	Pension (% of salary)	Fixed share allowance 100% of salary (1)	LTI award following pre-grant assessment over 2018
Ross McEwan	£1,000,000	£26,250 (2)	£350,000 (35%)	£1,000,000	£1,650,000
Katie Murray	£750,000	£26,250	£75,000 (10%)	£750,000	(3)

Notes:

(1) Fixed share allowance payable broadly in arrears, currently in two instalments per year, with shares released in equal tranches over a three year period.

(2) Amount shown relates to standard benefit funding. Executive directors are also entitled to travel assistance and security arrangements and the Chief Executive receives a flight allowance and assistance with tax returns as part of his relocation arrangements. The value of benefits received will be disclosed each year.

(3) The first LTI award will be made to Katie Murray in her capacity as an executive director in 2020, following a pre-grant assessment of performance over 2019. For performance year 2018, a period prior to appointment to the Board, variable pay will continue to be awarded in line with arrangements in place at that time.

Chairman and non-executive directors annual fees for 2019

Fees for RBSG Board (1)	Rates from 1 January 2019
Chairman (composite fee)	£750,000
Non-executive director basic fee	£80,000
Senior Independent Director	£30,000

Fees for RBSG Board Committees (1)	Member	Chairman

Group Board Risk Committee	£34,000	£68,000
Group Audit Committee	£34,000	£68,000
Group Performance and Remuneration Committee	£30,000	£60,000
Group Sustainable Banking Committee	£30,000	£60,000
Technology and Innovation Committee	£30,000	£60,000
GRG Board Oversight Committee	£15,000	£30,000
Group Nominations and Governance Committee	£15,000	

Other fees for RBSG Board directors	
Chairman of NatWest Markets Plc (composite fee to cover all boards and committees)	£260,000
Chairman of the Colleague Advisory Panel	£15,000

Note:

(1) No additional fees are payable where the director is also a member of the boards and respective board committees of NatWest Holdings Limited, The Royal Bank of Scotland plc, National Westminster Bank Plc and Ulster Bank Limited. Where appropriate, directors receive additional fees in respect of membership of other subsidiary company boards and committees including NatWest Markets Plc. The value of fees received will be disclosed in this report each year.

Other external directorships

Agreement from the Board must be sought before directors accept any additional roles outside of RBS. Procedures are in place to make sure that regulatory limits on the number of directorships held are complied with. The Board would also consider whether it was appropriate for executive directors to retain any remuneration receivable in respect of any external directorships, taking into account the nature of the appointment. Neither of the executive directors hold a non-executive director role at any other company at this time. Details of the directorships held by other directors can be found in the biographies section of the corporate governance report.

Directors interests in RBS shares and shareholding requirements (audited)

The shareholding requirement is to hold shares to the value of 400% of salary for the Chief Executive and 250% of salary for the Chief Financial Officer. Unvested shares from LTI awards count on a net of tax basis towards meeting the shareholding requirement once the pre-vest performance assessment has taken place, at the end of the three year period. Once the respective retention periods have passed, directors can only sell up to 25% of the shares received until the requirement is met. There are no shareholding requirements for non-executive directors.

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Shareholding requirements (audited)

Ross McEwan

Ewen Stevenson (as at 30 September 2018)

Notes:

(1) Ross McEwan holds 142,925 shares from his 2015 and 2016 fixed share allowances that are included in the shares held below but these have been excluded from the shareholding requirements calculation as he will transfer these shares to charity at the end of the retention period.

(2) Value is based on the share price of £2.17 as at 31 December 2018 for Ross McEwan and £2.50 as at 30 September 2018 for Ewen Stevenson, the date he stepped down from the Board. In both cases the shareholding requirement was exceeded. During the year the share price ranged from £2.03 to £3.02.

Share interests held by directors (audited)

	Ross McEwan	Ewen Stevenson	Howard Davies	Frank Dangeard	Alison Davis	Patrick Flynn	Morten Friis (4)	Robert Gillespie	Penny Hughes	Yasmin Jetha	Brendan Nelson	Baroness Noakes	Mike Rogers	Mark Seligman	Lena Wilson
Shares held (1)	2,302,031	1,182,272	80,000	5,000	20,000		20,000	25,000	562	20,000	12,001	41,000	20,000	20,000	6,000
% of issued share capital	0.0191	0.0098	0.0007		0.0002		0.0002	0.0002		0.0002	0.0001	0.0003	0.0002	0.0002	
LTI awards *subject to service (2)*	371,098	513,890													
LTI awards *subject to performance (3)*	2,968,335	2,448,749													

Notes:

(1) Shares owned beneficially as at 31 December 2018 or date of stepping down from the Board if earlier. The interests shown above include shares held by persons closely associated with the directors. As at 14 February 2019, there were no changes to the shares held shown above. Katie Murray joined the Board on 1 January 2019 and held 34,282 shares as at 14 February 2019.

(2) Performance assessment has taken place but awards are still subject to deferral periods and employment conditions before vesting. These awards count on a net of tax basis towards meeting the shareholding requirement. In Ewen Stevenson s case, the award was forfeited on his final date of employment.

(3) Still subject to performance assessment. All LTI awards held by Ewen Stevenson were forfeited on 30 November 2018, his final date of employment.

(4) Interest is 10,000 American Depositary Receipts representing 20,000 ordinary shares.

Breakdown of all shares and share interests held by the Chief Executive as at 31 December 2018

Shares owned outright		Shares subject to conditions			Total
shares purchased voluntarily by the Chief Executive	shares from vested LTI awards and fixed share allowances released from retention periods	shares from fixed share allowances still subject to retention periods	unvested LTI award from 2015 - performance assessment has taken place but subject to further deferral and employment conditions prior to vesting	unvested LTI awards from 2016 to 2018 subject to performance assessment, deferral and employment conditions	the vesting dates for LTI awards are shown in the table below.
299,458	1,442,951	559,622	371,098	2,968,335	5,641,464

Directors interests under the company s share plans (audited)

Long-term incentive awards

	Year of award	Awards held at 1 January 2018	Awards granted	Award price £	Awards lapsed for performance assessment	Awards forfeited	Awards held at 31 December 2018	Expected vesting dates	
Ross McEwan									
	2015	417,486		3.74	46,388		371,098(1)	06.03.19	06.03.20
	2016	1,187,207		2.26			1,187,207(2)	08.03.20	08.03.21
	2017	1,188,800		2.41			1,188,800	07.03.21	07.03.24
	2018		592,328	2.66			592,328	07.03.21	07.03.25
		2,793,493	592,328		46,388		3,339,433		
Ewen Stevenson (3)									
	2015	578,128		3.74	64,238	513,890			
	2016	952,424		2.26		952,424			
	2017	954,768		2.41		954,768			
	2018		541,557	2.66		541,557			
		2,485,320	541,557		64,238	2,962,639			

Notes:

(1) The performance period ended on 31 December 2017 resulting in the lapse of 46,388 shares due to the performance conditions not being met in full. The remaining 371,098 shares will vest in two equal amounts in 2019 and 2020, subject to continued employment conditions.

(2) The performance period ended on 31 December 2018 as set out earlier in this report. Following the assessment in January 2019, it was agreed that 487,285 shares would vest in 2020 and 2021, subject to continued employment conditions. The remaining shares will be lapsed and reflected in the 2019 report.

(3) Ewen Stevenson ceased to be an employee on 30 November 2018, at which point all outstanding awards were forfeited.

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Total Shareholder Return (TSR) performance

The graph below shows the performance of RBS over the past ten years in terms of TSR compared with that of the companies comprising the FTSE 100 Index. This index has been selected because it represents a cross-section of leading UK companies. The TSR for FTSE UK banks for the same period has been added for comparison. *Source: Datastream*

Chief Executive pay over the same period

	2009	2010	2011	2012	2013 (1)	2014	2015	2016	2017	2018
Total remuneration (£000s) (1)	1,647	3,687	1,646	1,646	1,235 (SH) 393 (RM)	1,878	3,492	3,702	3,487	3,578
Annual bonus against max. opportunity	0%	85%	0%	0%	0%	n/a	n/a	n/a	n/a	n/a
LTI vesting rates against max. opportunity (2)	0%	0%	0%	0%	0%	73%	62%	56%	89%	41%

Notes:

(1) 2013 remuneration includes Stephen Hester (SH) as Chief Executive for the period to 30 September and Ross McEwan (RM) for October to December 2013.

(2) The maximum opportunity is set according to the approved policy and, for LTI awards granted in 2015 and onwards, the regulatory cap.

Relative importance of spend on pay

The table below shows a comparison of remuneration expenditure against other distributions and charges. These items have been included as they reflect the key stakeholders for RBS and the major categories of distributions and charges made by RBS.

	2018 £m	2017 £m	Change
Remuneration paid to all employees (1)	3,628	3,945	(8.0%)
Distributions to holders of ordinary shares (2)	241		
Distributions to holders of preference shares and paid-in equity	470	628	(25.2%)
Taxation and other charges recognised in the income statement:			
- Social security, Bank levy and Corporation tax	1,062	1,100	(3.5%)
- Irrecoverable VAT and other indirect taxes incurred by RBS (3)	616	533	15.6%

Notes:

(1) Remuneration paid to all employees represents total staff expenses per Note 3 to the Financial Statements, exclusive of social security and other staff costs. As the contents of other staff costs per Note 3 is different to prior years, the 2017 balance has been re-presented for consistency.

(2) In 2018 RBS paid an interim dividend of 2.0p per ordinary share. In addition, the company announced that the directors have recommended a final dividend of 3.5p per ordinary share, and a further special dividend of 7.5p per ordinary share, which are both subject to shareholders approval at the Annual General Meeting on 25 April 2019.

(3) Input VAT and other indirect taxes not recoverable by RBS due to it being partially exempt.

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Change in Chief Executive pay compared with employees

The table below shows the percentage change in remuneration for the Chief Executive between 2017 and 2018 compared with the percentage change in the average remuneration of RBS employees based in the UK. In each case, remuneration is based on salary, benefits and annual bonus. The Chief Executive also receives a fixed share allowance as part of his fixed pay and this remained unchanged over the period.

	Salary 2017 to 2018 change	Benefits 2017 to 2018 change	Annual Bonus 2017 to 2018 change
Chief Executive (1)	0%	0%	n/a
UK employees (2)	17%	-51%	8%

Notes:

(1) Executive directors are not eligible for an annual bonus but receive variable pay in LTI awards. Standard benefit funding for executive directors remained unchanged between 2017 and 2018. The benefits for the Chief Executive excludes other benefits such as travel assistance in connection with company business and relocation benefits, the value of which is disclosed each year in the total remuneration table.

(2) The data represents full year average salary costs of the UK based employee population. This is considered to be the most representative comparator group as it covers the majority of employees and the Chief Executive is based in the UK. The changes in salary and benefits for employees have largely been driven by a simplification and rebalancing of fixed pay arrangements. There was no material change to total remuneration as a result of these changes. The percentage reduction in benefits is not equal to the percentage uplift in salary because the underlying values are different and salary makes up a larger proportion of total remuneration.

CEO to employee pay ratios

We are including the table below ahead of new reporting requirements formally applying next year. The ratios compare the total remuneration of the Chief Executive, as set out in this report, against the remuneration of the median UK employee as well as employees at the lower and upper quartiles. The disclosure will build up over time to cover a rolling 10-year period.

A significant proportion of the Chief Executive s pay is delivered in LTI awards, where awards are linked to the company s performance and share price movements over the longer-term. Therefore, the ratios will depend significantly on LTI outcomes and may fluctuate from one year to the next. None of the three employees identified at the 25th, 50th and 75th percentiles this year received LTI awards. The table also includes ratios covering salary only so that a further comparison is possible as well as the remuneration values for the identified employees. The steps that RBS takes to ensure employees are paid fairly are set out earlier in this report.

Methodology	Pay ratios	Calculation	Remuneration values

Financial Year		P25 (Lower Quartile)	P50 (Median)	P75 (Upper Quartile)		Chief Executive	Y25 (Lower Quartile)	Y50 (Median)	Y75 (Upper Quartile)
2018	A (see notes)	143:1	97:1	56:1	total remuneration	£3,577,649	£24,946	£36,727	£63,825
	salary only	44:1	30:1	19:1	salary only	£1,000,000	£22,526	£33,146	£51,302

Notes:

(1) The employees at the 25th, 50th and 75th percentiles (lower, median and upper quartile) were determined as at 31 December 2018 based on full-time equivalent remuneration for all UK employees other than for variable pay where the actual amount to be paid has been used.

(2) Option A methodology was selected as this is considered the most statistically accurate method under the reporting regulations. UK employees receive a pension funding allowance set as a percentage of salary. Some employees, but not the Chief Executive, continue to participate in the defined benefit pension scheme, under which it would be possible to recognise a higher value. For simplicity and consistency with our regulatory disclosures, the pension funding allowance value has been included in the calculation for all employees.

(3) The data for the three individuals identified has been considered and fairly reflects pay at the relevant quartiles amongst the UK employee population. Each of the three individuals was a full-time employee during the year and none received an exceptional award which would otherwise inflate their pay figures.

Summary of remuneration levels for employees in 2018

49,875 employees earned total remuneration up to £50,000
11,508 employees earned total remuneration between £50,000 and £100,000
4,924 employees earned total remuneration between £100,000 and £250,000
932 employees earned total remuneration over £250,000

Remuneration of the eight highest paid senior executives below Board (1)

	Executive 1 £000	Executive 2 £000	Executive 3 £000	Executive 4 £000	Executive 5 £000	Executive 6 £000	Executive 7 £000	Executive 8 £000
Salary	800	800	141	792	650	600	450	444
Fixed allowance (cash)	475	400	71	396	325	300	113	111
Fixed allowance (shares)	475	400	71	396	325	300	113	111
Annual bonus								
LTI awards (2)	714	714		460	460	410	246	47
Buyout award (3)			1,962					
Total remuneration	2,464	2,314	2,245	2,044	1,760	1,610	922	713

Notes:

(1) Remuneration for 2018 for eight members of the Chief Executive s executive management team.

(2) The value of the LTI awards reflects awards that were granted in 2016 and performance-assessed at the end of 2018. An estimated value is shown above based on the average share price between October and December 2018, consistent with the method used for executive directors in this report.

(3) The buyout includes awards granted in replacement of awards forfeited on leaving a previous employer and also an award in respect of lost variable pay opportunity for 2018.

Annual Report on Remuneration

Consideration of matters relating to directors remuneration

Membership of the Group Performance and Remuneration Committee

All members of the Group Performance and Remuneration Committee (the Committee) are independent non-executive directors. Robert Gillespie served as Chairman of the Committee and Alison Davis, Mike Rogers and Mark Seligman were members of the Committee throughout 2018. Frank Dangeard joined the Committee with effect from 1 June 2018.

The Committee held seven scheduled meetings in 2018 and a further four ad hoc meetings. Details of attendance can be found in the Our Board section of the governance report.

The role and responsibilities of the Committee

The Committee is responsible for:

- approving the remuneration policy for all employees and reviewing the effectiveness of its implementation;
- reviewing performance and making recommendations to the Board on arrangements for executive directors;
- approving performance and remuneration arrangements for a defined in scope population capturing members and attendees of the Group Executive Committee, and the direct reports of the Chief Executive including heads of key legal entities, control function heads and the company secretary. The Committee also approves arrangements where employees earn total compensation which exceeds an amount determined by the Committee, currently £1 million; and
- setting the remuneration framework and principles for employees identified as Material Risk Takers falling within the scope of UK regulatory requirements.

In mitigating potential conflicts of interest, directors are not involved in decisions regarding their own remuneration and remuneration advisers are appointed by the Committee rather than management.

The terms of reference of the Committee are reviewed annually and available on rbs.com.

Summary of the principal activity of the Committee in 2018

The tasks that the Committee undertook during the year included reviewing and, where appropriate, approving:

First half of 2018

- 2017 performance reviews and remuneration arrangements for the Committee s in scope population.
- 2018 performance objectives for the in scope population.
- Variable pay allocations and the 2017 Directors Remuneration Report.
- Vesting levels for LTI awards granted in 2015 and the interim assessment of 2016/17 LTI awards.
- Remuneration governance arrangements for ring-fencing.
- Regulatory updates and submissions.
- Fixed and variable pay spend across all RBS employees, including analysis by employee level, geography and diversity.
- The Group-wide remuneration policy principles.
- Service provided by external advisers.
- The bonus pool methodology.

Second half of 2018

- Half-year and year-end performance reviews for the in scope population.
- The implications of the UK Corporate Governance Code changes and new pay ratio disclosures.
- Year end planning and external stakeholder engagement plan.
- Management s assurance of the implementation of the Group-wide remuneration policy.
- Fixed pay proposals across RBS for the annual cycle.
- The 2018 employee Sharesave offer.
- The draft Directors Remuneration Report for 2018.
- 2018 variable pay proposals.

Performance evaluation

The Committee has considered the findings of the annual review of the effectiveness of the Committee. This year the evaluation process was conducted externally by Independent Board Evaluation.

The Committee was felt to be fulfilling its remit in an effective way and is trusted by the Group Board to handle this potentially sensitive issue well. The Committee was encouraged to take a broad view of its agenda and to communicate as freely as possible with the Board so that remuneration decisions are seen to be taken in a strategic context. Actions were agreed as part of the evaluation and progress will be tracked and reported to the Committee during 2019.

Advisers to the Committee

PricewaterhouseCoopers LLP (PwC) was first appointed as remuneration adviser by the Committee in 2010, following a review of potential advisers and the services provided. An annual review of the quality of advice and the associated level of fees was undertaken during 2018, following which the Committee agreed to retain the services of PwC. The Committee will continue to review the performance of its advisers each year. PwC is a signatory to the voluntary code of conduct in relation to remuneration consulting in the UK.

As well as receiving advice from PwC, the Committee took account at meetings of the views of the Chairman; the Chief Executive; the Chief Financial Officer; the Chief HR Officer; the Director of Reward, Pension & Benefits; the Company Secretary; and the Chief Risk Officer. The Committee also received input from the Board Risk Committee, the Group Audit Committee and the Sustainable Banking Committee.

PwC also provides professional services in the ordinary course of business including assurance, advisory, tax and legal advice to RBS subsidiaries. There are processes in place to ensure the advice received by the Committee is independent of any support provided to management.

In relation to the fees paid to PwC for advising the Committee, a fixed fee structure has operated since October 2017 to cover standard services with any exceptional items charged on a time/cost basis. The fees for 2018 in relation to directors remuneration amounted to £128,625 excluding VAT (2017 - £170,476).

Statement of shareholder voting

The tables below set out the voting by shareholders on the resolutions to approve the Directors Remuneration Policy at the 2017 AGM and the Annual Report on Remuneration at the 2018 AGM.

Directors Remuneration Policy 2017

Vote	No of shares	Percentage
For	42,143,861,332	96.33%
Against	1,603,968,780	3.67%
Withheld	40,411,396	

Annual Report on Remuneration 2018

Vote	No of shares	Percentage
For	44,384,841,256	99.18%
Against	366,523,976	0.82%
Withheld	38,493,640	

Shareholder dilution

The company meets its employee share plan obligations through a combination of new issue shares and market purchase shares. In line with the Investment Association s Principles of Remuneration, RBS s employee share plans contain monitored limits that govern the number of shares that may be issued to satisfy share plan awards.

Robert Gillespie

Chairman of the Group Performance and Remuneration Committee

14 February 2019

Other Remuneration Disclosures

This section contains a number of disclosures which are required in accordance with Article 450 of the Capital Requirements Regulation. This section should be read in conjunction with the Directors Remuneration Report starting on page 74.

Remuneration policy for all employees

The remuneration policy supports the business strategy and is designed to promote the long-term success of RBS. It aims to reward employees for delivering good performance provided this is achieved in a manner consistent with RBS values and within acceptable risk parameters. The remuneration policy applies the same principles to all employees, including Material Risk Takers (MRTs), with some minor adjustments to the policy where necessary to comply with local regulatory requirements. The key elements of the policy are set out below.

Base salary

The purpose is to provide a competitive level of fixed cash remuneration.

Operation

Base salaries are reviewed annually and should reflect the talents, skills and competencies that the individual brings to the business.

Role-based allowance

The purpose is to provide fixed pay that reflects the skills and experience required for the role.

Operation

Role-based allowances are fixed allowances which form an element of the employee s overall fixed remuneration for regulatory purposes and are based on the role the individual performs.

They are delivered in cash and/or shares depending on the level of the allowance and the seniority of the recipient. Shares are subject to an appropriate retention period, not less than six months.

Benefits and pension

The purpose is to provide a range of flexible and competitive benefits.

Operation

In most jurisdictions, employee benefits or a cash equivalent are provided from a flexible benefits account.

Pension funding forms part of fixed remuneration and RBS does not as a rule award discretionary pension benefits.

Annual bonus

The purpose is to support a culture where employees recognise the importance of serving customers well and are rewarded for superior performance.

Operation

The annual bonus pool is based on a balanced scorecard of measures including Customer, People, Financial & Business Delivery, and Risk & Control measures. Allocation from the pool depends on performance of the franchise or function and the individual.

Individual performance assessment is supported by a structured performance management framework. This is designed to assess performance against longer term business requirements across a range of financial and non-financial metrics as well as an evaluation of adherence to internal controls and risk management. A balanced scorecard is used to align with the business strategy. Each individual will have defined measures of success appropriate to their role.

Risk and conduct performance is also taken into account. Control functions are assessed independently of the business units that they oversee, with the objectives and remuneration being set according to the priorities of the control area, not the targets of the businesses they support. The Group Chief Risk Officer and the Chief Audit Executive have the authority to escalate matters to Board level if management do not respond appropriately.

Independent control functions exist for key legal entities outside the ring-fence (NatWest Markets Plc and RBS International), with dual solid reporting lines into both the legal entity Chief Executive Officer and the Group Control Function Head.

For awards made in respect of the 2018 performance year, immediate cash awards continue to be limited to a maximum of £2,000. In line with regulatory requirements, a significant proportion of annual bonus awards for our more senior employees is deferred and includes partial delivery in shares.

The deferral period varies from three years for standard MRTs, rising to five years for individuals identified as Risk Manager MRTs and seven years for Senior Managers under the UK s Senior Managers Regime. All awards are subject to malus and clawback provisions. For MRTs, a minimum of 50% of any annual bonus is delivered in shares and a twelve month retention period will apply post vesting in line with regulatory requirements

Long-term incentive awards

The purpose is to: support a culture where good performance against a full range of measures will be rewarded; encourage the creation of value over the long-term; and align rewards with the returns to shareholders.

Operation

RBS provides certain employees in senior roles with long-term incentive awards. For awards made in respect of the 2018 performance year, the population receiving long-term incentive awards will be limited to executive directors and certain members of the Group s senior executive committees.

Awards will be subject to pre-grant and pre-vest performance assessments that consider progress against Customer, People, Financial & Business Delivery, and Risk & Control measures, aligned with RBS s strategic aims. Vesting will take place over a three to seven year period following grant.

The number of shares that vest under the award may vary between 0% -100% depending on the performance achieved. Awards are subject to malus and clawback provisions and a twelve month retention period applies post vesting.

Shareholding requirements

The requirements promote long-term alignment between senior executives and shareholders.

Operation

Executive directors and certain senior executives are required to build up and hold a shareholding equivalent to a percentage of salary. There is a restriction on the number of shares that individuals can sell until the requirement is met.

Other share plans

The purpose is to offer employees in certain jurisdictions the opportunity to acquire shares.

Operation

Employees in certain countries are eligible to contribute to share plans which are not subject to performance conditions.

Other Remuneration Disclosures

Criteria for identifying MRTs

The European Banking Authority has issued criteria for identifying MRT roles, those staff whose activities have a material influence over RBS s performance or risk profile. The criteria are both qualitative (based on the nature of the role) and quantitative (for example those who exceed the stipulated total remuneration threshold).

The qualitative criteria can be summarised as: staff within the management body; senior management; other staff with key functional or managerial responsibilities; and staff who individually, or as part of a Committee, have authority to approve new business products or to commit to credit risk exposures and market risk transactions above certain levels. The quantitative criteria are: individuals earning 500,000 or more in the previous year; individuals in the top 0.3% of earners in the previous year; and individuals who earned more than the lowest paid identified staff per certain qualitative criteria. In addition to the qualitative and quantitative criteria, RBS has applied its own minimum standards to identify roles that are considered to have a material influence over its risk profile.

Personal hedging strategies

In accordance with UK regulatory requirements and internal dealing rules that apply to employees, the conditions attached to discretionary share-based awards prohibit the use of any personal hedging strategies to lessen the impact of a reduction in value of such awards. These conditions are explicitly acknowledged and accepted by employees when any share-based awards are granted.

Risk in our remuneration process

RBS s approach to remuneration and related policies promotes effective risk management through a clear distinction between fixed remuneration, which reflects the role undertaken by an individual, and variable remuneration, which is directly linked and reflective of performance and can be risk-adjusted. Fixed pay is set at an appropriate level to avoid incentives that are adverse to sound risk management, and at a level which would allow RBS to pay zero variable pay.

Focus on risk is achieved through clear risk input into objectives, performance reviews, the determination of variable pay pools, and incentive plan design as well as the application of malus and clawback. The Committee is supported by the Group Board Risk Committee (BRC) and the RBS Risk function.

A robust process is used to assess risk performance. A range of measures are considered, specifically capital, liquidity and funding risk, credit risk, market risk, pension risk, compliance & conduct risk, financial crime, operational risk, business risk and reputational risk. Consideration is also given to overall risk culture. RBS s remuneration arrangements are in accordance with regulatory requirements and the steps we take to ensure appropriate and thorough risk adjustment are also fully disclosed and discussed with the PRA and the FCA.

Variable pay determination

For the 2018 performance year, RBS operated a robust multi-step process, which is control function led, to assess performance and the appropriate bonus pool by franchise and function. At multiple points throughout the process, reference is made to Group-wide business performance (from both affordability and appropriateness perspectives) and the need to distinguish between go-forward and resolution activities.

The process considers a balanced scorecard of performance assessments at the level of each franchise or function, across financial, customer and people measures. Risk and conduct assessments at the same level are then undertaken to ensure that performance achieved without appropriate consideration of risk, risk culture and conduct controls, is not inappropriately rewarded.

BRC reviews any material risk and conduct events and, if appropriate, an underpin may be applied to the individual business and function bonus pools or to the overall bonus pool. BRC may recommend a reduction of a bonus pool if it considers that risk and conduct performance is unacceptable or that the impact of poor risk management has yet to be fully reflected in the respective inputs.

Following further review against overall performance and conduct, the Chief Executive will make a final recommendation to the Committee, informed by all the previous steps in the process and his strategic view of the business. The Committee will then make an independent decision on the final bonus pool taking all of these earlier steps into account.

The assessment process for LTI awards to executive directors and other recipients is founded on the balanced scorecard approach used for the multi-step bonus pool process, reflecting a consistent risk management performance assessment.

Remuneration and culture

RBS continues to assess conduct and its impact on remuneration as part of the annual Group-wide bonus pool process and also via the accountability review framework. RBS has continued to simplify its approach to reward and removed incentives for employees where this could drive unintended behaviours. The Committee will continue to review workforce remuneration and the alignment of incentives and reward with culture.

The governance of culture is clearly laid out with Senior Management Function roles having clearly defined accountabilities. The Board and Sustainable Banking Committee also play key roles in building our cultural priorities. Clear measurement frameworks are in place to measure progress.

Accountability review process and malus/clawback

The accountability review process was introduced in 2012 to identify any material risk management, control and general policy breach failures, and to ensure accountability for those events. This allows RBS to respond in instances where new information would change the variable pay decisions made in previous years and/or the decisions to be made in the current year.

Under the accountability review process RBS can apply:

- Malus - to reduce (to zero if appropriate) the amount of any unvested variable pay awards prior to payment;

- Clawback - to recover awards that have already vested; and

- In-year bonus reductions - to adjust variable pay that would have otherwise been awarded for the current year.

Any variable pay awarded to MRTs from 1 January 2015 onwards is subject to clawback for seven years from the date of grant. For awards made in respect of the 2016 performance year onwards, this period has been extended to ten years for executive directors and other Senior Managers under the Senior Managers Regime where there are outstanding internal or regulatory investigations at the end of the normal seven year clawback period.

Circumstances in which RBS may apply malus, clawback or in-year bonus reduction include:

- the individual being culpable, responsible or ultimately accountable for conduct which results in significant financial losses for RBS;

- the individual failing to meet appropriate standards of fitness and propriety;

- reasonable evidence of an individual s misbehaviour or material error;

- RBS or the individual s relevant business unit suffering a material failure of risk management; and

- for malus and in-year bonus reduction only, circumstances where there has been a material downturn in financial performance.

The above list of circumstances is not exhaustive and RBS may consider any further circumstances that it feels appropriate.

During 2018 a number of issues and events were considered under the accountability review framework. The outcomes covered a range of actions including: reduction and forfeiture of unvested awards through malus; dismissal with forfeiture of unvested awards; and suspension of awards pending further investigation.

Other Remuneration Disclosures

Remuneration of MRTs

The quantitative disclosures below are made in accordance with Article 450 of the EU Capital Requirements Regulation in relation to 588 employees who have been identified as MRTs.

1. Number of MRTs by business area

Number of beneficiaries	Senior mgmt	Other MRTs	Total
Executive Directors	2		2
Non-Executive Directors		13	13
PBB	1	55	56
CPB	1	75	76
RBSI	1	23	24
NatWest Markets	1	228	229
Corporate Functions	7	136	143
Control Functions	0	15	15
Other Business Areas	1	29	30
Total	14	574	588

2. Aggregate remuneration expenditure

Aggregate remuneration expenditure in respect of 2018 performance was as follows:

Aggregate remuneration	Senior mgmt	Other MRTs	Total
Number of beneficiaries	14	574	588
	£m	£m	£m
Executive Directors	5.77		5.77
Non-Executive Directors		2.95	2.95
PBB	2.54	18.82	21.36
CPB	3.39	33.24	36.63
RBSI	1.22	5.08	6.30
NatWest Markets	3.56	152.36	155.92
Corporate Functions	12.01	48.18	60.19
Control Functions		4.81	4.81
Other Business Areas	2.65	14.66	17.31
Total	31.14	280.10	311.24

3. Amounts and form of fixed and variable remuneration

Fixed remuneration consisted of salaries, allowances, pension and benefit funding.

Fixed remuneration	Senior mgmt	Other MRTs	Total
Number of beneficiaries	14	574	588
	£m	£m	£m
Executive Directors	4.12		4.12
Non-Executive Directors		2.95	2.95
PBB	1.44	13.27	14.71
CPB	1.89	20.52	22.41
RBSI	0.66	3.63	4.29
NatWest Markets	2.06	96.29	98.35
Corporate Functions	6.94	32.35	39.29
Control Functions		3.26	3.26
Other Business Areas	1.55	10.13	11.68
Total	18.66	182.40	201.06

Variable remuneration awarded for 2018 performance

Variable remuneration consisted of a combination of annual bonus and long-term incentive awards, deferred over a three to seven year period in accordance with regulatory requirements. Under the RBS bonus deferral structure, immediate cash awards are limited to £2,000 per employee.

Long-term incentive awards vest subject to the extent to which performance conditions are met and can result in zero payment.

Annual bonus	Senior mgmt	Other MRTs	Total
Number of beneficiaries	3	469	472
	£m	£m	£m
Executive Directors			
Non-Executive Directors			
PBB			
Cash remuneration		0.09	0.09
Deferred bonds		1.90	1.90
Deferred shares		3.56	3.56
		5.55	5.55
CPB			
Cash remuneration		0.11	0.11
Deferred bonds		2.78	2.78
Deferred shares		9.83	9.83
		12.72	12.72
RBSI			
Cash remuneration		0.05	0.05
Deferred bonds	0.06	0.79	0.85
Deferred shares	0.50	0.62	1.12
	0.56	1.46	2.02
NatWest Markets			
Cash remuneration		0.39	0.39
Deferred bonds		9.65	9.65
Deferred shares		46.03	46.03
		56.07	56.07
Corporate Functions			
Cash remuneration		0.24	0.24
Deferred bonds	0.06	5.36	5.42
Deferred shares	1.44	10.23	11.67
	1.50	15.83	17.33

	Senior mgmt	Other MRTs	Total
Control Functions			
Cash remuneration		0.02	0.02
Deferred bonds		0.45	0.45
Deferred shares		1.08	1.08
		1.55	1.55
Other Business Areas			
Cash remuneration		0.05	0.05
Deferred bonds		1.18	1.18
Deferred shares		3.30	3.30
		4.53	4.53
Total	2.06	97.71	99.77

Long-term incentives	Senior mgmt	Other MRTs	Total
Number of beneficiaries	9		9
	£m	£m	£m
Executive Directors	1.65		1.65
Non-Executive Directors			
PBB	1.10		1.10
CPB	1.50		1.50
RBSI			
NatWest Markets	1.50		1.50
Corporate Functions	3.58		3.58
Control Functions			
Other Business Areas	1.10		1.10
Total	10.43		10.43

4. Outstanding deferred remuneration through 2018

The table below includes deferred remuneration awarded or paid out in 2018 in respect of prior performance years. Deferred remuneration reduced during the year relates to long-term incentives lapsed when performance conditions are not met, long-term incentives and deferred awards forfeited on leaving and malus adjustments of prior year deferred awards and long-term incentives.

Category of deferred remuneration	Senior mgmt £m	Other MRTs £m	Total £m
Unvested from prior year	44.59	137.10	181.69
Awarded during year	11.73	108.16	119.89
Paid out	1.76	81.99	83.75
Reduced from prior years	14.39	14.77	29.16
Unvested at year end	40.17	148.51	188.68

5. Guaranteed Awards (including Sign-on awards) and Severance Payments

RBS does not offer Sign-on awards . Guaranteed awards may only be granted to new hires in exceptional circumstances in compensation for awards foregone in their previous company and are limited to the first year of service. Three new hire guarantees were made in respect of the 2018 performance year.

Severance payments and / or arrangements can be made to employees who leave RBS in certain situations, including redundancy. Such payments are calculated by a pre-determined formula set out within the relevant social plans, policies, agreements or local laws. Where local laws permit, there is a cap on the maximum amount that can be awarded.

No severance payments were made during the year in excess of contractual payments, local policies, standards or statutory amounts, other than payments to three individuals of £215,869, £81,923 and 502,877 each made in commercial settlement of potential legal proceedings related to the termination of employment.

Where required, remuneration is constrained within the limit of variable to fixed remuneration in accordance with EBA rules.

Definitions

PBB	Personal & Business Banking
CPB	Commercial & Private Banking
RBSI	RBS International

Other Remuneration Disclosures

6. Ratio between fixed and variable remuneration

The variable component of total remuneration for MRTs at RBS shall not exceed 100% of the fixed component. The average ratio between fixed and variable remuneration for 2018 is approximately 1 to 0.62. The majority of MRTs are based in the UK.

Ratio of fixed to variable	Senior mgmt	Other MRTs	Total
Number of beneficiaries	12	469	481
	ratio	ratio	ratio
Executive Directors	1:0.69		1:0.69
Non-Executive Directors		1:0	1:0
PBB	1:0.77	1:0.47	1:0.50
CPB	1:0.80	1:0.69	1:0.70
RBSI	1:0.85	1:0.42	1:0.49
NatWest Markets	1:0.73	1:0.65	1:0.65
Corporate Functions	1:0.89	1:0.53	1:0.58
Control Functions	1:0	1:0.52	1:0.52
Other Business Areas	1:0.71	1:0.52	1:0.65
Consolidated	1:0.80	1:0.60	1:0.62

7. Discount Rate

Under CRD IV regulations, a notional discount is available which allows variable pay to be awarded at a level that would otherwise exceed the 1:1 ratio, provided that at least 25% of variable pay is delivered in instruments (shares) and deferred over five years or more. The discount rate was not used for remuneration awarded in respect of the 2018 performance year.

Total remuneration by band for all employees earning > 1 million

million	Number of employees 2018
1.0 - 1.5	45
1.5 - 2.0	23
2.0 - 2.5	5
2.5 - 3.0	2
3.0 - 3.5	1
3.5 - 4.0	0
4.0 - 4.5	1
4.5 - 5.0	1
Total	78

Notes:

(1) Total remuneration in the table above includes fixed pay, pension and benefit funding and variable pay.

(2) Executive directors are included. The table is based on an exchange rate where applicable of 1.13 to £1 as at 31 December 2018.

Employees who earned total remuneration of over 1 million in 2018 represent just 0.1% of our employees. This number reduces to 67 employees if we exclude pension and benefit funding. These employees include those who manage major businesses and functions with responsibility for significant assets, earnings or areas of strategic activity and can be grouped as follows:

- The Chief Executives responsible for each area and their direct reports.

- Employees managing large businesses within a franchise.

- Income generators responsible for high levels of income including those involved in managing trading activity and supporting clients with more complex financial transactions, including financial restructuring.

- Those responsible for managing our balance sheet and liquidity and funding positions across the business.

Capital and risk management

Presentation of information

Where indicated in the section headers, information in the Capital and risk management section (pages 101 to 176) is within the scope of the Independent auditor s reportWhere a main section header, presented in bold, is marked as audited all sub sections are also audited.

Risk management framework

Introduction

RBS operates an integrated risk management framework, centred around the embedding of a strong risk culture, which is designed to achieve compliance with prudential and conduct obligations. Each element of the risk management framework functions both individually and as part of a larger continuum. The framework ensures the tools and capability are in place to facilitate risk management and decision-making across the organisation.

RBS s strategy is informed and shaped by an understanding of the risk landscape, including a range of significant risks and uncertainties in the external economic, political and regulatory environment. Identifying these risks and understanding how they affect RBS informs risk appetite and risk management practice.

Risk appetite, which is supported by a robust set of principles, policies and practices, defines our levels of tolerance for a variety of risks. It is a key element of RBS s risk management framework and culture, providing a structured approach to risk-taking within agreed boundaries.

Effective governance, underpinned by the three lines of defence model, is essential to ensure the right decisions are being made by the right people at the right time. Governance includes regular and transparent risk reporting as well as discussion and decision-making at senior management committees, which informs management strategies across the organisation.

RBS aims to have the right tools in place to support effective risk management. Having the appropriate capability, people and infrastructure is central. This is supported by a strong emphasis on systems, training and development to ensure threats are anticipated and managed appropriately within the boundaries determined by the agreed risk appetite.

Measurement, evaluation and transparency are also fundamental elements of the framework, providing robust analysis of the materiality and likelihood of specific threats as well as supporting understanding and communication of the financial and non-financial risks to which RBS is exposed.

RBS has a strong focus on defining the control environment to ensure the effective operation of policies and processes embedded in the customer-facing businesses, thus facilitating the management of the risks they take in the course of their day-to-day activities.

RBS also has a strong focus on continually improving the way risk is managed, particularly in terms of how threats are anticipated or responded to, but also in terms of simplifying or enhancing existing controls, policies and practice.

Essential to this is the ability to scan both the medium and long-term horizon for risks. Stress testing is used to quantify, evaluate and understand the potential impact that changes to risks may have on the financial strength of RBS, including its capital position. In turn, the results of stress tests can be used to inform and shape strategy.

Given the evolving landscape, including the structural reform required by the UK s ring-fencing requirements, in 2018 there was an emphasis on enhancing both the risk culture and risk appetite elements of the framework as well as the interconnectivity between framework components.

Capital and risk management

Risk management framework continued

All RBS employees share ownership of the way risk is managed. The businesses, the control and support functions, and Internal Audit work together to make sure business activities and policies are consistent with risk appetite; following the three lines of defence model. RBS constantly monitors its risk profile against its defined risk appetite and limits, taking action when required to balance risk and return.

The methodology for setting, governing and embedding risk appetite across RBS is being further enhanced with the aim of simplifying current risk appetite processes and increasing alignment with strategic planning and external threat assessments.

Risk culture

A strong risk culture is essential if RBS is to achieve its ambition to build a truly customer-focused bank. RBS s risk culture target is to make risk simply part of the way that employees work and think.

Such a culture must be built on strong risk practices and appropriate risk behaviours must be embedded throughout the organisation.

To achieve this, RBS is focusing on leaders as role models and taking action to build clarity, continuing to develop capability and motivate employees to reach the required standards of risk culture behaviour. This includes: taking personal responsibility for understanding and proactively managing the risks associated with individual roles; respecting risk management and the part it plays in daily work; understanding clearly the risks associated with individual roles; aligning decision-making to RBS s risk appetite; considering risk in all actions and decisions; escalating risks and issues early; taking action to mitigate risks; learning from mistakes and near-misses; challenging others attitudes, ideas and actions; and reporting and communicating risks transparently.

RBS s target risk culture behaviours are embedded in Our Standards and are clearly aligned to the core values of serving customers , working together , doing the right thing and thinking long-term . These act as an effective basis for a strong risk culture because Our Standards are used for performance management, recruitment and development.

A risk culture measurement and reporting approach has been developed, enabling RBS to benchmark both internally and externally. This allows RBS to assess progress in embedding its target risk culture where risk is simply part of the way staff work and think.

Training

Enabling employees to have the capabilities and confidence to manage risk is core to RBS s learning strategy.

RBS offers a wide range of risk learning, both technical and behavioural, across the risk disciplines. This training can be mandatory, role-specific or for personal development.

Code of Conduct

Aligned to RBS s values is the Code of Conduct. The code provides guidance on expected behaviour and sets out the standards of conduct that support the values. It explains the effect of decisions that are taken and describes the principles that must be followed.

These principles cover conduct-related issues as well as wider business activities. They focus on desired outcomes, with practical guidelines to align the values with commercial strategy and actions. The embedding of these principles facilitates sound decision-making and a clear focus on good customer outcomes.

A simple decision-making guide the YES check has been included in the Code of Conduct. It is a simple set of five questions, designed to ensure RBS values guide day-to-day decisions:

- Does what I am doing keep our customers and RBS safe and secure?
- Would customers and colleagues say I am acting with integrity?
- Am I happy with how this would be perceived on the outside?
- Is what I am doing meeting the standards of conduct required?
- In five years time would others see this as a good way to work?

Each of the five questions is a prompt to think about how the situation fits with RBS Group s values. It ensures that employees can think through decisions that do not have a clear answer, and guides their judgements.

If conduct falls short of RBS s required standards, the accountability review process is used to assess how this should be reflected in pay outcomes for those individuals concerned. RBS-wide remuneration policy ensures that the remuneration arrangements for all employees reflect the principles and standards prescribed by the PRA rulebook and the FCA handbook. Any employee falling short of the expected standards would also be subject to internal disciplinary policies and procedures. If appropriate, the relevant authority would be notified.

Capital and risk management

Risk management framework continued

Risk governance

Committee structure

The diagram illustrates RBS s risk committee structure in 2018 and the main purposes of each committee.

Risk management structure

The diagram illustrates RBS s risk management structure in 2018 and key risk management responsibilities.

Notes:

(1) While separate roles, the individual undertaking the RBS Group Chief Executive role also performs the NatWest Holdings Chief Executive role.

(2) The RBS Group Risk function is led by the RBS Group Chief Risk Officer. The RBS Group Chief Risk Officer reports directly to the RBS Group Chief Executive and has a secondary reporting line to the chair of the Group Board Risk Committee as well as a right of access to the committee.

(3) The NatWest Holdings Chief Risk Officer (Chief Risk Officer, Ring-Fenced Bank) reports directly to the RBS Group Chief Risk Officer and the NatWest Holdings Chief Executive, along with a secondary reporting line to the NatWest Holdings Board Risk Committee chair and right of access to the committee including the Deputy Chairman.

(4) The NatWest Holdings Risk function provides risk management services across the RBS Group, including to the RBS Group Chief Risk Officer and where agreed to the NatWest Markets and RBSI Chief Risk Officers. These services are managed, as appropriate, through service level agreements.

(5) The NatWest Holdings Risk function is independent of the NatWest Holdings customer-facing franchises and support functions. It provides oversight of risk management ensuring that risk exposures arising from management and business activities are adequately monitored and controlled. The directors of Financial Risk & Analytics, Compliance & Conduct, Restructuring, Risk Policy & Frameworks and Operational Risk & Services as well as the Chief Financial Crime Officer, Chief Credit Officer, Deputy Chief Risk Officer and Head of Risk Strategy & Transformation report to the NatWest Holdings Chief Risk Officer. The Director of Risk, Ulster Bank Ireland DAC and the Director of Compliance, Ulster Bank Ireland DAC, report to the Ulster Bank Ireland DAC Chief Executive; they also have a reporting line to the NatWest Holdings Chief Risk Officer.

(6) The Chief Risk Officers for NatWest Markets and RBSI have dual reporting lines into the RBS Group Chief Risk Officer and the respective chief executives of their entities. There are additional reporting lines to the NatWest Markets and RBSI Board Risk Committee chairs and a right of access to the committee.

Capital and risk management

Risk management framework continued

Three lines of defence

RBS uses the three lines of defence model to articulate accountabilities and responsibilities for managing risk across the organisation. The three lines of defence model is adopted across the industry to support the embedding of effective risk management and is expressed through a set of principles as outlined below. All roles, regardless of level, sit within one of these three lines.

First line of defence Management and supervision

The first line of defence encompasses most roles within RBS, including those in customer franchises, Technology and Services as well as support functions such as Human Resources, Communications & Marketing and Finance. Responsibilities include:

- Owning, managing and supervising, within a defined risk appetite, the risks which exist in business areas and support functions.
- Ensuring the business has effective mechanisms for identifying, reporting and managing risk and controls.
- Ensuring appropriate controls are in place to mitigate risk, balancing control, customer service and competitive advantage.
- Ensuring that the culture of the business supports balanced risk decisions and compliance with policy, laws and regulations.

Second line of defence Oversight and control

The second line of defence is the Risk function as well as the policy and control elements of Human Resources, Legal and the Finance function. Responsibilities include:

- Leading the articulation, design and development of risk culture and appetite.
- Setting the standard for risk management across the Group.
- Overseeing and challenging the management of risks and controls.
- Analysing the aggregate risk profile and ensuring that risks are being managed within risk appetite.
- Providing expert advice to the first line on risk management, including the application of effective risk and control frameworks and the consideration of risk in decision-making.
- Providing senior executives with relevant management information and reports, and escalating concerns where appropriate.

Third line of defence Internal Audit

Responsibilities include:

- Providing assurance to the Group Audit Committee on the appropriateness of the design and operational effectiveness of governance, risk management and internal controls to monitor and mitigate material risks.

- Engaging with management to provide perspectives, insights and challenge in order to influence the building of a sustainable bank.

- Providing independent assurance to the Financial Conduct Authority, Prudential Regulation Authority, Central Bank of Ireland and other key jurisdictional regulators on specific risks and controls.

Risk appetite

Risk appetite defines the level and types of risk RBS is willing to accept, within risk capacity, in order to achieve strategic objectives and business plans. It links the goals and priorities to risk management in a way that guides and empowers staff to serve customers well and achieve financial targets.

For certain strategic risks, risk capacity defines the maximum level of risk the RBS Group can assume before breaching constraints determined by regulatory capital and liquidity needs, the operational environment, and from a conduct perspective. Articulating risk capacity helps determine where risk appetite should be set, ensuring there is a buffer between internal risk appetite and the Group s ultimate capacity to absorb losses.

Risk appetite framework

The risk appetite framework bolsters effective risk management by promoting sound risk-taking through a structured approach, within agreed boundaries. It also ensures emerging risks and risk-taking activities that would be out of appetite are identified, assessed, escalated and addressed in a timely manner.

To facilitate this, a detailed annual review of the framework is carried out. The review includes:

- Assessing the adequacy of the framework when compared to internal and external expectations.

- Ensuring the framework remains effective as a strong control environment for risk appetite.

- Assessing the level of embedding of risk appetite across the organisation.

The Board approves the risk appetite framework annually.

Establishing risk appetite

Risk appetite is communicated across RBS through risk appetite statements. The risk appetite statements provide clarity on the scale and type of activities that can be undertaken in a manner that is easily conveyed to staff.

Risk appetite statements consist of qualitative statements of appetite supported by risk limits and triggers that operate as a defence against excessive risk-taking. They are established at RBS-wide level for all strategic risks and material risks, and at legal entity, franchise, and function level for all other risks.

The annual process of establishing risk appetite statements is completed alongside the business and financial planning process. This ensures plans and risk appetite are appropriately aligned.

The Board sets risk appetite for the most material risks to help ensure RBS is well placed to meet its priorities and long-term targets even under challenging economic environments. It is the basis on which RBS remains safe and sound while implementing its strategic business objectives.

RBS s risk profile is frequently reviewed and monitored to ensure it remains within appetite and that management focus is concentrated on all strategic risks, material risks and emerging risk issues. Risk profile relative to risk appetite is reported regularly to the Board and senior management.

Risk controls and limits

Risk controls and their associated limits are an integral part of the risk appetite approach and a key part of embedding risk appetite in day-to-day risk management decisions. A clear tolerance for material risk types is set in alignment with business activities.

RBS policies directly support the qualitative aspects of risk appetite, helping to rebuild and maintain stakeholder confidence in RBS s risk control and governance. Its integrated approach is designed to ensure that appropriate controls, aligned to risk appetite, are set for each of the strategic and material risks it faces, with an effective assurance process put in place to monitor and report on performance.

Risk identification and measurement

Risk identification and measurement within the risk management process comprise:

- Regular assessment of the overall risk profile, incorporating market developments and trends, as well as external and internal factors.
- Monitoring of the risks associated with lending and credit exposures.
- Assessment of trading and non-trading portfolios.
- Review of potential risks in new business activities and processes.
- Analysis of potential risks in any complex and unusual business transactions.

The financial and non-financial risks that RBS faces each day are detailed in the Risk Directory. This provides a common risk language to ensure consistent terminology is used across RBS. The Risk Directory is subject to annual review. This ensures that it continues to provide a comprehensive and meaningful list of the inherent risks within the businesses.

Risk treatment and mitigation

Risk treatment and mitigation is an important aspect of ensuring that risk profile remains within risk appetite. Risk mitigation strategies are discussed and agreed with the businesses. When evaluating possible strategies, costs and benefits, residual risks (risks that are retained) and secondary risks (those caused by the risk mitigation actions) are considered. Monitoring and review processes are in place to track results. Early identification and effective management of changes in legislation and regulation are critical to the successful mitigation of conduct risk. The effects of all changes are managed to ensure timely compliance readiness. Changes assessed as having a high or medium-high impact are managed closely.

Capital and risk management

Risk management framework continued

Significant and emerging risks that may affect future results and performance are reviewed and monitored. Action is taken to mitigate potential risks as and when required. In depth analysis is carried out, including the stress testing of exposures relative to the risk.

Risk assurance

Assurance is carried out on targeted credit risk, market risk, compliance and conduct risk and financial crime risk activities to provide assurance to both internal and external stakeholders including the Board, senior management, the customer-facing franchises, Internal Audit and the Group s regulators. Selected key controls are also reviewed. Qualitative reviews are carried out to assess various risk aspects as appropriate, including: the quality of risk portfolios, the accuracy of the Basel model inputs and related probability of default/loss given default classifications, the quality of risk management practices, policy compliance and adherence to risk appetite. This can include testing the Group s credit portfolios and market risk exposures to assist in the early identification of emerging risks, as well as undertaking targeted reviews to examine specific issues.

The adequacy and effectiveness of selected key controls owned and operated by the second line of defence are also tested (with a particular focus on credit risk and market risk controls). Selected controls within the scope of Section 404 of the US Sarbanes-Oxley Act 2002 as well as selected controls supporting risk data aggregation and reporting are also reviewed. Assurance is carried out on Anti-Money Laundering, Sanctions, and Anti-Bribery & Corruption processes and controls. This helps inform whether or not the financial crime control environment is adequate and effective and whether financial crime risk is appropriately identified, managed and mitigated. The Risk Assurance Committee ensures a consistent and fair approach to all aspects of the second-line assurance review activities. The committee also monitors and validates the ongoing programme of reviews and tracks the remediation of the more material review actions.

Model risk

Model risk is the risk that a model is specified incorrectly (not achieving the objective for which it is designed), implemented incorrectly (an error in translating the model specification into the version actually used), or being used incorrectly (correctly specified but applied inappropriately).

RBS uses a variety of models as part of its risk management process and activities. Key examples include the use of model outputs to support risk assessments in the credit approval process, ongoing credit risk management, monitoring and reporting, as well as the calculation of risk-weighted assets. Other examples include the use of models to measure market risk exposures and calculate associated capital requirements, as well as for the valuation of positions. The models used for stress-testing purposes also play a key role in ensuring RBS holds sufficient capital, even in stressed market scenarios.

Key developments in 2018

In April 2018, the PRA set out its expectations on the model risk management practices that should be adopted when using stress test models. RBS has a strong focus on model risk management and, as a result, practices were reviewed and, where appropriate, work to enhance them in line with regulatory expectations continues.

RBS further invested in model risk management during 2018, particularly given business demand and the growing complexity of requirements, such as new regulation and AI. This included the specification of additional IT systems to enhance capability in this area.

Model Risk Governance

Model Risk Governance is responsible for setting policy and providing a governance framework for all of RBS s models and related processes. It is also responsible for defining and monitoring model risk appetite in conjunction with model owners and model users, monitoring the model risk profile and reporting on the model population as well as escalating issues to senior management, through the Model Risk Forum, and the respective franchise and function risk committees.

Model Risk Management

Model Risk Management performs independent model validation for material models. It works with individual businesses and functions to monitor adherence to model risk standards, ensuring that models are developed and implemented appropriately and that their operational environment is fit for purpose.

Model Risk Management performs reviews of relevant risk and pricing models in two instances: (i) for new models or amendments to existing models and (ii) as part of its ongoing programme to assess the performance of these models. Model Risk Management reviews may test and challenge the logic and conceptual soundness of the methodology, or the assumptions underlying a model. Reviews may also test whether or not all appropriate risks have been sufficiently captured as well as checking the accuracy and robustness of calculations. Based on the review and findings from Model Risk Management, RBS s model or risk committees consider whether a model can be approved for use. Models used for regulatory reporting may additionally require regulatory approval before implementation.

Model Risk Management reassesses the appropriateness of approved risk models on a periodic basis. Each periodic review begins with an initial assessment. Based on the initial assessment, an internal model governance committee will decide to re-ratify a model or to carry out additional work. In the initial assessment, Model Risk Management assesses factors such as a change in the size or composition of the portfolio, market changes, the performance of or any amendments to the model and the status of any outstanding issues or scheduled activities carried over from previous reviews. Model Risk Management also monitors the performance of RBS s portfolio of models to ensure they appropriately capture underlying business rationale. For more information relating to market risk models and pricing models, refer to page 171.

Stress testing

Stress testing capital management

Stress testing is a key risk management tool and a fundamental component of RBS s approach to capital management. It is used to quantify, evaluate and understand the potential impact of specified changes to risk factors on the financial strength of RBS, including its capital position. Stress testing includes:

- Scenario testing, which examines the impact of a hypothetical future state to define changes in risk factors.
- Sensitivity testing, which examines the impact of an incremental change to one or more risk factors.

The process for stress testing consists of four broad stages:

Define scenarios	• Identify RBS-specific vulnerabilities and risks.

- Define and calibrate scenarios to examine risks and vulnerabilities.
- Formal governance process to agree scenarios.
- Translate scenarios into risk drivers.

Assess impact

- Assess impact to positions, income and costs.
- Impact assessment captures input from across RBS.
- Aggregate impacts into overall results.

Calculate results and assess implications

- Results form part of risk management process.
- Scenario results are used to inform RBS s business and capital plans.
- Scenario results are analysed by subject matter experts and appropriate management actions are then developed.

Develop and agree management actions

- Scenario results and management actions are reviewed and agreed by senior management through executive committees including Executive Risk Committee, Board Risk Committee and the Board.

Capital and risk management

Risk management framework continued

Stress testing is used widely across RBS. The diagram below summarises key areas of focus:

Specific areas that involve capital management include:

- *Strategic financial and capital planning* through assessing the impact of sensitivities and scenarios on the capital plan and capital ratios.

- *Risk appetite* through gaining a better understanding of the drivers of and the underlying risks associated with risk appetite.

- *Risk identification* through a better understanding of the risks that could potentially impact RBS s financial strength and capital position.

- *Risk mitigation* through identifying actions that can be taken to mitigate risks, or could be taken, in the event of adverse changes to the business or economic environment. Risk mitigation is substantially supplemented through RBS s recovery plan.

Reverse stress testing is also carried out. This examines circumstances that can lead to specific, defined outcomes such as business failure. Reverse stress testing allows RBS to examine potential vulnerabilities in its business model more fully.

Capital sufficiency going-concern forward-looking view

With a view to ensuring that RBS and its operating subsidiaries maintain sufficient CET1 capital, going-concern capital requirements are assessed on a forward-looking basis including as part of the annual budgeting process. These assessments consider the resilience of capital adequacy and leverage ratios under a range of hypothetical future states. The assessments incorporate assumptions regarding a range of regulatory and accounting aspects such as IFRS 9, taking account of a number of factors including economic variables and impairments.

In particular, assessments of capital requirements rely on forecasts of:

- Future business performance given expectations of economic and market conditions over the forecast period.

- Future business performance under adverse economic and market conditions over the forecast period. A range of scenarios of different severity may be examined.

The examination of capital requirements under normal economic and market conditions enables RBS to demonstrate how its projected business performance allows it to meet all internal and regulatory capital requirements as they arise over the plan horizon. For example, RBS will assess its ability to issue loss-absorbing debt instruments in sufficient quantity to meet regulatory timelines. The cost of issuance will be factored into business performance metrics.

The examination of capital requirements under adverse economic and market conditions is assessed through stress testing.

The results of stress tests are not only used widely across RBS but also by the regulators to set specific capital buffers. RBS takes part in a number of stress tests run by regulatory authorities to test industry-wide vulnerabilities under crystallising global and domestic systemic risks. In 2018, RBS took part in the Bank of England and European Banking Authority stress tests. Details are set out on page 105.

Under stress testing, IFRS 9 volatility can have a more material impact. This is because the peak-to-trough change in CET1 may be affected by the transitions from Stage 1 to Stage 2 in stress conditions. RBS uses stress and the peak-to-trough movements to help assess the amount of CET1 capital it needs to hold in stress conditions, in accordance with the capital risk appetite framework.

Internal assessment of capital adequacy

An internal assessment of material risks is carried out annually to enable an evaluation of the amount, type and distribution of capital required to cover these risks. This is referred to as the Internal Capital Adequacy Assessment Process (ICAAP). The ICAAP consists of a point-in-time assessment of RBS s exposures and risks at the end of the financial year together with a forward-looking stress capital assessment. The ICAAP is approved by the Board and submitted to the PRA.

The ICAAP is used to form a view of capital adequacy separately to the minimum regulatory requirements. The ICAAP is used by the PRA to make an assessment of RBS-specific capital requirements through the Pillar 2 framework.

Capital allocation

RBS has mechanisms to allocate capital across its legal entities and businesses which aim to optimise the utilisation of capital resources taking into account applicable regulatory requirements, strategic and business objectives and risk appetite. The framework for allocating capital is approved by the Asset & Liability Management Committee.

Governance

Capital management is subject to substantial review and governance. Formal approval of capital management policies is either by the Asset & Liability Management Committee or by the Board on the recommendation of the Board Risk Committee.

The Board approves the capital plans, including those for key legal entities and businesses as well as the results of the stress tests relating to those capital plans.

Stress testing liquidity

Liquidity risk monitoring and contingency planning

In implementing the liquidity risk management framework, a suite of tools is used to monitor, limit and stress test the risks on the balance sheet. Limit frameworks are in place to control the level of liquidity risk, asset and liability mismatches and funding concentrations.

Liquidity risks are reviewed at significant legal entity and business levels daily, with performance reported to the Asset & Liability Management Committee at least monthly. Liquidity Condition Indicators are monitored daily which ensures any build-up of stress is detected early and the response escalated appropriately through recovery planning.

Internal assessment of liquidity

Under the liquidity risk management framework, RBS undertakes the Individual Liquidity Adequacy Assessment Process. This includes assessment of net stressed liquidity outflows. RBS considers a range of extreme but plausible stress scenarios on its liquidity position over various time horizons, as outlined below.

Capital and risk management

Risk management framework continued

Type	Description
Idiosyncratic scenario	The market perceives RBS to be suffering from a severe stress event, which results in an immediate assumption of increased credit risk or concerns over solvency.
Market-wide scenario	A market stress event affecting all participants in a market through contagion, counterparty failure and other market risks. RBS is affected under this scenario but no more severely than any other participants with equivalent exposure.
Combined scenario	This scenario models the combined impact of an idiosyncratic and market stress occurring at once. The combined scenario reflects the contingency that a severe name-specific event occurs at RBS in conjunction with a broader market stress, causing wider damage to the market and financial sector and severely affecting funding markets and assets.

RBS uses the most severe combination of these to set the internal stress testing scenario. The results of this enable RBS to set its internal liquidity risk appetite, which complements the regulatory liquidity coverage ratio requirement.

Stress testing recovery and resolution planning

The RBS Group Recovery Plan explains how The Royal Bank of Scotland Group plc (RBSG) and its subsidiaries as a consolidated group would identify and respond to a financial stress event and restore its financial position to remain viable on an ongoing basis.

The Recovery Plan ensures that risks which could delay the implementation of a recovery strategy are highlighted and preparations are made to minimise the impact of these risks. Preparations RBS has taken include:

- developing a series of recovery indicators to provide early warning of potential stress events
- clarifying roles, responsibilities and escalation routes to minimise uncertainty or delay
- developing a recovery playbook to provide a concise description of the actions required during recovery
- detailing a range of options to address different stress conditions
- appointing dedicated option owners to reduce the risk of delay and bandwidth concerns

The Recovery Plan is intended to enable RBS to maintain critical services and products it provides to its customers (its critical economic functions), maintain its important business lines (core business lines) and operate within risk appetite whilst restoring the bank s financial condition.

The Recovery Plan is assessed for appropriateness on an ongoing basis and is updated annually, in line with regulatory requirements. It is reviewed and approved by the Board prior to submission to the PRA each year.

Individual Recovery Plans have been prepared for NatWest Holdings Limited, NatWest Markets Plc, RBS International Holdings Limited, Ulster Bank Ireland DAC and NatWest Markets N.V. These plans reflect the structure and operations of the post-ring-fenced group and detail the recovery options, recovery indicators and escalation routes for each entity to manage its own response to a financial stress.

If RBS was assessed by the UK authorities as failing or likely to fail the authorities have a wide range of powers to place RBS into Resolution. The UK s Special Resolution Regime places an obligation on banks to ensure they are resolvable. Resolvability is a measure of how effectively a set of actions could be taken to manage the failure of RBS, through execution of a preferred resolution strategy which the Group is Single Point of Entry Bail-in of the Group Hold Co. The process of resolution is owned and implemented by the Bank of England (as UK Resolution Authority).

RBS has a multi-year programme of work through to 1 January 2022 to ensure impediments to resolvability are removed and the regulatory resolution strategy could be executed.

Stress testing market risk

Non-traded market risk

Non-traded exposures are reported to the PRA on a quarterly basis as part of the Stress Testing Data Framework. The return provides the regulator with an overview of RBS s banking book interest rate exposure, providing detailed product information analysed by interest rate driver and other characteristics including accounting classification, currency and, counterparty type.

Scenario analysis based on hypothetical adverse scenarios is performed on non-traded exposures as part of the industry-wide Bank of England and European Banking Authority stress exercises. In addition, RBS produces its own internal scenario analysis as part of the financial planning cycles.

Non-traded market risk exposures which are not captured under Pillar 1 are capitalised through the ICAAP. The process covers the following risk types: gap risk, basis risk, credit spread risk, pipeline risk, structural foreign exchange risk, prepayment risk and accounting volatility risk. The ICAAP is completed with a combination of value and earnings measures. The total non-traded market risk capital requirement is determined by adding the different charges for each sub risk type. The ICAAP methodology captures at least ten years of historical volatility, produced with 99% confidence level. Methodologies are reviewed by RBS Model Risk and the results are approved by the Technical Asset & Liability Management Committee.

Traded market risk

RBS undertakes daily market risk stress testing to identify vulnerabilities and potential losses in excess of, or not captured in, value-at-risk. The calculated stresses measure the impact of changes in risk factors on the fair values of the trading and fair value through other comprehensive income portfolios.

RBS conducts historical, macroeconomic and vulnerability-based stress testing. Historical stress testing is a measure that is used for internal management. Using the historical simulation framework employed for value-at-risk, the current portfolio is stressed using historical data since 1 January 2005. This methodology simulates the impact of the 99.9 percentile loss that would be incurred by historical risk factor movements over the period, assuming variable holding periods specific to the risk factors and the businesses.

Historical stress tests form part of the market risk limit framework and their results are reported daily to senior management. Macroeconomic stress tests are carried out periodically as part of the bank-wide, cross-risk capital planning process. The scenario narratives are translated into risk factor shocks using historical events and insights by economists, risk managers and the first line.

Market risk stress results are combined with those for other risks into the capital plan presented to the Board. The cross-risk capital planning process is conducted once a year, with a planning horizon of five years. The scenario narratives cover both regulatory scenarios and macroeconomic scenarios identified by RBS.

Vulnerability-based stress testing begins with the analysis of a portfolio and expresses its key vulnerabilities in terms of plausible, vulnerability scenarios under which the portfolio would suffer material losses. These scenarios can be historical, macroeconomic or forward-looking/hypothetical. Vulnerability-based stress testing is used for internal management information and is not subject to limits. However, the results for relevant scenarios are reported to senior management

Capital and risk management

Risk management framework continued

Regulatory stress testing

In 2018, RBS took part in regulatory stress tests conducted by the Bank of England and the European Banking Authority. The scenarios are hypothetical in nature and do not represent forecasts of RBS s future business or profitability. The results of the regulatory stress tests are carefully assessed by RBS and form part of the wider risk management of RBS.

	Bank of England stress test	European Banking Authority stress test
Scenario	• Designed to assess the resilience of major UK banks to tail risk events. The severity of the test is related to policymakers assessments of risk levels across markets and regions. • The 2018 stress test examined the impact, over five years, of deep simultaneous recessions in the UK and global economies, large falls in asset prices and a separate stress of misconduct costs. The economic scenario in the test was more severe than the global financial crisis.	• Designed to evaluate the impact, over three years, of a general macro financial downturn. • A static balance sheet assumption was made across the period of stress and therefore mitigating actions such as balance sheet reduction, business growth and cost savings are not factored into the stress outcomes.
Results	• On an IFRS 9 transitional basis, the CET1 ratio reached a low point of 9.6%, significantly above the hurdle rate of 7.3%. • On an IFRS 9 non-transitional basis, the CET1 ratio reached a low point of 9.2%, significantly above the hurdle rate of 6.9%. • On an IFRS 9 transitional basis, the Tier 1 leverage ratio low point was projected to be 5.1% under stress, significantly above the leverage ratio hurdle rate of 3.59%. • On an IFRS 9 non- transitional basis, the Tier 1 leverage ratio low-point was projected to be 4.8% under stress, significantly above the leverage ratio hurdle rate of 3.25%. • The stress was based on an end of 2017 balance sheet starting position. Since then, RBS has taken	• The 2018 EBA stress test did not contain a pass/fail threshold. • On an IFRS 9 transitional basis, RBS s CET1 ratio under the adverse scenario reached a low point of 9.9% • On an IFRS 9 non-transitional (fully loaded) basis, RBS s CET1 ratio under the adverse scenario reached a low point of 9.48% • On an IFRS 9 transitional basis, RBS s leverage ratio under the adverse scenario reached a low point of 4.83%. • On an IFRS 9 non-transitional (fully loaded) basis the leverage ratio under the adverse scenario reaches a low point of 4.1%

a number of actions to further improve its capital position stress resilience, including the continued reduction in certain credit portfolios and the resolution of various litigation cases and regulatory investigations.

- The stress was based on an end of 2017 balance sheet starting position. Since then, RBS has taken a number of actions to further improve its capital position stress resilience, including the continued reduction in certain credit portfolios and the resolution of various litigation cases and regulatory investigations.

What does this mean?

- The 2018 Bank of England and European Banking Authority stress test results demonstrated that good progress has been made in transforming the balance sheet to a safe and sustainable position.

Capital and risk management

Capital, liquidity and funding risk

Definitions

Capital consists of reserves and instruments issued that are available, have a degree of permanency and are capable of absorbing losses. A number of strict conditions set by regulators must be satisfied to be eligible as capital.

Capital adequacy risk is the risk that there is or will be insufficient capital and other loss absorbing debt instruments to operate effectively including meeting minimum regulatory requirements, operating within Board approved risk appetite and supporting its strategic goals.

Liquidity consists of assets that can be readily converted to cash within a short timeframe at a reliable value. Liquidity risk is the risk of being unable to meet financial obligations as and when they fall due.

Funding consists of on-balance sheet liabilities that are used to provide cash to finance assets. Funding risk is the risk of not maintaining a diversified, stable and cost-effective funding base.

Liquidity and funding risks arise in a number of ways, including through the maturity transformation role that banks perform. The risks are dependent on factors such as:

- Maturity profile;
- Composition of sources and uses of funding;
- The quality and size of the liquidity portfolio;
- Wholesale market conditions; and
- Depositor and investor behaviour.

Sources of risk

Capital

The eligibility of instruments and financial resources as regulatory capital is laid down by applicable regulation. Capital is categorised under two tiers (Tier 1 and Tier 2) according to the ability to absorb losses, degree of permanency and the ranking of absorbing losses on either a going or gone concern basis. There are three broad categories of capital across these two tiers:

- CET1 capital. CET1 capital must be perpetual and capable of unrestricted and immediate use to cover risks or losses as soon as these occur. This includes ordinary shares issued and retained earnings.

- Additional Tier 1 (AT1) capital. This is the second type of loss absorbing capital and must be capable of absorbing losses on a going concern basis. These instruments are either written down or converted into CET1 capital when a pre-specified CET1 ratio is reached.

- Tier 2 capital. Tier 2 capital is the Group s supplementary capital and provides loss absorption on a gone concern basis. Tier 2 capital absorbs losses after Tier 1 capital. It typically consists of subordinated debt securities with a minimum maturity of five years.

Minimum requirement for own funds and eligible liabilities (MREL)

In addition to capital, other specific loss absorbing instruments, including senior notes issued by the Group, may be used to cover certain gone concern capital requirements which, in the EU, is referred to as MREL. Gone concern refers to the situation in which resources must be available to enable an orderly resolution, in the event that the Bank of England (BoE) deems that the Group has failed, or is likely to fail.

Liquidity

RBS maintains a prudent approach to the definition of liquidity resources. RBS manages its liquidity to ensure it is always available when and where required, taking into account regulatory, legal and other constraints. Following ring-fencing legislation, liquidity is no longer considered fungible across the Group and the liquidity portfolio has been restructured during 2018 to reflect this. Principal liquidity portfolios are maintained in the UK Domestic Liquidity Sub-Group (UK DoLSub) (primarily in NatWest Bank Plc), UBI DAC, NatWest Markets Plc, RBS International and NWM N.V.. Some disclosures in this section where relevant are presented, on a consolidated basis, for RBS, the UK DoLSub and on a solo basis for NatWest Markets plc.

Liquidity resources are divided into primary and secondary liquidity as follows:

- Primary liquid assets include cash and balances at central banks, Treasury bills and other high quality government and US agency bonds.

- Secondary liquid assets are eligible as collateral for local central bank liquidity facilities. These assets include own-issued securitisations or whole loans that are retained on balance sheet and pre-positioned with a central bank so that they may be converted into additional sources of liquidity at very short notice.

Funding

RBS maintains a diversified set of funding sources, including customer deposits, wholesale deposits and term debt issuance. RBS also retains access to central bank funding facilities.

For further details on capital constituents and the regulatory framework covering capital, liquidity and funding requirements, please refer to the RBS Pillar 3 Report 2018 on page 6. For MREL refer to page 8.

Key developments in 2018

- RBS continued to strengthen and de-risk its capital position; CET1 ratio remains ahead of the c14% target and increased by 30 basis points in the year to 16.2%. The directors have recommended a final dividend of 3.5p per ordinary share, and a further special dividend of 7.5p per ordinary share, which are both subject to shareholders approval at the Annual General Meeting on 25 April 2019.

- IFRS 9 adoption on 1 January 2018 favourably impacted CET1 by 30 basis points. RWAs reduced by £12.2 billion to £188.7 billion primarily driven by the legacy business in NatWest Markets, the impact of capital initiatives in Commercial Banking and the impact of the non-performing loan sale and improvement in credit metrics in Ulster Bank RoI.

- CRR leverage ratio increased to 5.4% (2017 5.3%). UK leverage ratio improved to 6.2% (2017 6.1%) in line with the balance sheet reduction.

- During the year the BOE published indicative data on the minimum amount of loss-absorbing resources for the larger UK banks comprising MREL plus buffers. RBS is expected to require loss-absorbing resources of 22.9% of RWAs by 1 January 2020, rising to 26.5% by 1 January 2022. Total loss absorbing capital, based on RBS s interpretation of the rules and including the benefit of legacy securities, was 30.7% of RWAs at 31 December 2018.

- In 2018, RBSG plc issued approximately £7 billion MREL compliant senior debt bringing the total MREL senior debt issues to approximately £16 billion relative to the end state (1 January 2022) requirements of approximately £24 billion. These funds enabled RBSG plc to invest in £4.8 billion of NatWest Holdings MREL eligible issuance and £5.1 billion NWM plc eligible issuance in December 2018.

- During the year, RBS changed its approach to managing liquidity in preparation for ring-fencing. NatWest Markets left the UK DoLSub and now manages its liquidity on a stand-alone basis.

- The liquidity portfolio increased by £11 billion in 2018 to £198 billion, with primary liquidity increasing by £4 billion to £128 billion. The increase in primary liquidity is driven by increased customer surplus within NatWest Holdings, reduced funding requirement in NatWest Markets and net term issuance, partially offset by settlement of the payment to the US Department of Justice, contribution to the Group pension fund and Term Funding Scheme (TFS) repayment. Increase in secondary liquidity is driven primarily by repayment of TFS, resulting in the return of previously encumbered assets.

- The rise in primary liquidity resulted in higher liquidity coverage ratio (LCR) of 158% (2017 152%). The internal Stressed Outflow coverage ratio decreased to 154% (2017 168%) due to stress methodology changes and higher stressed behavioural outflows over the three month horizon.

- The net stable funding ratio is 141% (2017 139% on estimated comparable basis) above the minimum target of 100%.

- The regulatory agenda continues to rapidly evolve in the UK, Europe and internationally. RBS manages its capital, liquidity and funding to meet both current and future regulatory requirements whilst ensuring that we continue to serve customers well.

Capital and risk management

Capital, liquidity and funding risk continued

Capital management

Capital management ensures that there is sufficient capital and other loss absorbing instruments to operate effectively including meeting minimum regulatory requirements, operating within Board approved risk appetite, maintaining its credit rating and supporting its strategic goals.

Capital management is critical in supporting the businesses and is enacted through an end to end framework across businesses and the legal entities. Capital is managed both on a Group consolidated level, as well as at NatWest Holdings Group, NatWest Markets Plc, NatWest Markets NV, and RBS International levels. In addition, NatWest Holdings banking subsidiaries are also subject to the same principles, processes and management as the Group of which it is a part. Note that although the aforementioned entities are regulated in line with Basel III principles, local implementation of the framework differs across geographies.

Capital planning is integrated into the Group s wider annual budgeting process and is assessed and updated at least monthly. Regular returns are submitted to the PRA which include a two year rolling forward view. Other elements of capital management, including risk appetite and stress testing, are set out on pages 104 and 105.

Produce capital plans	• Capital plans are produced for the Group, its key operating entities and its businesses over a five year planning horizon under expected and stress conditions. Stressed capital plans are produced to support internal stress testing in the ICAAP for regulatory purposes.
i	• Shorter term forecasts are developed frequently in response to actual performance, changes in internal and external business environment and to manage risks and opportunities.
Assess capital adequacy	• Capital plans are developed to maintain capital of sufficient quantity and quality to support the Group s business, its subsidiaries and strategic plans over the planning horizon within approved risk appetite, as determined via stress testing, and minimum regulatory requirements.
	• Capital resources and capital requirements are assessed across a defined planning horizon.
i	• Impact assessment captures input from across the Group including from businesses.
	• Capital planning informs potential capital actions including buy backs, redemptions, dividends and new issuance to external investors or via internal transactions.
Inform capital actions	• Decisions on capital actions will be influenced by strategic and regulatory requirements, risk appetite, costs and prevailing market conditions.
	• As part of capital planning, RBS will monitor its portfolio of external capital securities and assess the optimal blend and most cost effective means of financing.

Capital planning is one of the tools that the Group uses to monitor and manage capital risk on a going and gone concern basis, including the risk of excessive leverage.

Liquidity risk management

RBS manages its liquidity risk taking into account regulatory, legal and other constraints to ensure sufficient liquidity is available where required to cover liquidity stresses. The principal levels at which liquidity risk is managed are:

- NatWest Holdings Group
- UK DoLSub
- UBI DAC
- NatWest Markets
- NatWest Markets Securities Inc.
- RBS International
- NWM N.V.

The UK DoLSub is PRA regulated and comprises RBS s four licensed deposit taking UK banks: National Westminster Bank Plc, The Royal Bank of Scotland plc, Coutts & Company and Ulster Bank Limited.

NatWest Markets Plc left the UK DoLSub during 2018 and now manages its own liquidity portfolio, as required by ring-fencing legislation.

RBS categorises its liquidity portfolio, including its locally managed liquidity portfolios, into primary and secondary liquid assets. The size of the liquidity portfolios are determined by referencing RBS s liquidity risk appetite. RBS retains a prudent approach to setting the composition of the liquidity portfolios, which is subject to internal policies applicable to all entities and limits over quality of counterparty, maturity mix and currency mix.

RBS International, NWM N.V. and UBI DAC hold locally managed portfolios that comply with local regulations that may differ from PRA rules.

The liquidity value of the portfolio is determined by taking current market prices and applying a discount or haircut, to give a liquidity value that represents the amount of cash that can be generated by the asset.

Funding risk management

RBS manages funding risk through a comprehensive framework which measures and monitors the funding risk on the balance sheet.

Asset and liability types broadly match. Customer deposits provide more funding than customer loans utilise; repurchase agreements are largely covered by reverse repurchase agreements; derivative assets are broadly netted against derivative liabilities.

Capital and risk management

Capital, liquidity and funding risk continued

Minimum requirements

Capital adequacy ratios

The Group is subject to minimum capital requirements relative to RWAs. The table below summarises the minimum ratios of capital to RWAs that the Group is expected to have to meet once CRR is fully implemented by 1 January 2019. These ratios apply at the consolidated group level. Different minimum capital requirements may apply to individual legal entities or sub-groups.

Minimum requirements	Type	CET1	Total Tier 1	Total capital
System wide	Pillar 1 minimum requirements	4.5%	6.0%	8.0%
	Capital conservation buffer	2.5%	2.5%	2.5%
	Countercyclical capital buffer (1)	0.7%	0.7%	0.7%
	G-SIB buffer (2)	1.0%	1.0%	1.0%
Bank specific	Pillar 2A(4)	2.0%	2.7%	3.6%
Total (excluding PRA buffer)(5)		10.7%	12.9%	15.8%

Notes:

(1) The countercyclical capital buffer (CCyB) applied to UK designated assets is set by the Financial Policy Committee (FPC). The UK CCyB is currently 1.0% (effective from November 2018). The rate had previously increased from 0.0% to 0.5% (effective June 2018). The Republic of Ireland CCyB is currently 0.0%, the CBI have announced an increase to 1.0% effective July 2019. Foreign exposures may be subject to different CCyB rates depending on the rate set in those jurisdictions. Firm specific CCyB is based on a weighted average at CCyB s applicable to countries in which the Bank has exposures.

(2) Globally systemically important banks (G-SIBs), as designated by the Financial Stability Board (FSB), are subject to an additional capital buffer of between 1% and 3.5%. In November 2018 the FSB announced that RBS is no longer a GSIB. From 1 January 2020, RBS will be released from this global buffer requirement.

(3) The Group will be subject to a systemic risk buffer (SRB) of between 0% and 3%. The SRB will apply from 1 January 2019 and will apply at the ring-fenced bank sub-group level rather than at the consolidated group level. The RFB SRB may require the Group to hold a minimum amount of capital at the consolidated group level beyond the levels set out in the table above.

(4) From 1 January 2015, UK banks have been required to meet at least 56% of its Pillar 2A capital requirement with CET1 capital and with balance with Additional Tier 1 and/or Tier 2 capital. Additional capital requirements under Pillar 2A may be specified by the PRA as a ratio or as an absolute value. The table sets out an implied ratio to cover the full value of Pillar 2A requirements. The PRA has recently determined that the Pillar 2A capital requirement for 2018 remains unchanged.

(5) The Group may be subject to a PRA buffer requirement as set by the PRA. The PRA buffer consists of two components:

- A risk management and governance buffer that is set as a scalar of the Pillar 1 and Pillar 2A requirements. The scalar could range between 10% and 40%.

- A buffer to cover stress risks informed by the results of the BoE concurrent stress testing results.

- The PRA requires that the level of this buffer is not publicly disclosed.

(6) The capital conservation buffer, the countercyclical capital buffer, the G-SIB buffer and systemic risk buffer (where applicable) make up the combined buffer. If the Group fails to meet the combined buffer requirement, it is subject to restrictions on distributions on CET1 instruments, discretionary coupons on AT1 instruments and on payment of variable remuneration or discretionary pension benefits. These restrictions are calculated by reference to the Group s Maximum Distributable Amount (MDA). Where a PRA buffer is applicable, the MDA trigger is below the PRA buffer and MDA restrictions are not automatically triggered if the Group fails to meet its PRA buffer. The MDA is calculated as the amount of interim or year-end profits not yet incorporated into CET1 capital multiplied by a factor ranging from 0 to 0.6 depending on the size of the CET1 shortfall against the combined buffer.

Leverage ratios

The table below summarises the minimum ratios of capital to leverage exposure under the PRA UK leverage framework that the Group must meet. In November 2016, the European Commission published a package of legislative proposals (CRR 2) for the adoption of a legally binding 3% of Tier 1 capital minimum leverage ratio with consideration of a leverage buffer ratio for G-SIBs once a final international agreement had been reached. Different minimum requirements may apply to individual legal entities or sub-groups.

Type	CET1	Total Tier 1
Minimum ratio	2.4375%	3.2500%
Countercyclical leverage ratio buffer (1)	0.2500%	0.2500%
Additional leverage ratio buffer	0.3500%	0.3500%
Total	3.0375%	3.8500%

Note:

(1) The countercyclical leverage ratio buffer is set at 35% of the Group s CCyB. As noted above the UK CCyB is currently 1.0% (effective from November 2018). The rate had previously increased from 0.0% to 0.5% (effective June 2018). Foreign exposures may be subject to different CCyB rates depending on the rate set in those jurisdictions. On 3 October 2017 the PRA, via revised policy statement (PS21/17), increased the Tier 1 leverage ratio requirement for UK banks by 25 basis points to 3.25% (CET1 requirement of 2.4375%). The PRA minimum leverage ratio requirement is supplemented with a G-SII additional leverage ratio buffer, currently 0.2625% under transitional arrangements (2017 0.175%) increasing to 0.35% from 1 January 2019.

Liquidity and funding ratios

The table below summarises the minimum requirements for key liquidity and funding metrics, under the relevant legislative framework.

Type	From 1 January 2018	From 1 January 2019
Liquidity coverage ratio (LCR)	100%	100%
Net stable funding ratio (NSFR) (1)	N/A	N/A

Note:

(1) In November 2016, the European Commission published its proposal for NSFR rules within the EU as part of its CRR2 package of regulatory reforms. CRR2 NSFR is expected to become the regulatory requirement in future within the EU and the UK. RBS has changed its policy

on the NSFR to align with its interpretation of the CRR2 proposals with effect from 1 January 2018.

Capital and risk management

Capital, liquidity and funding risk continued

Measurement

Capital, risk-weighted assets and leverage: Key metrics

The table below sets out the key Capital and Leverage ratios.

	2018		2017	
	End-point CRR basis (1)	PRA transitional basis	End-point CRR basis (1)	PRA transitional basis
Capital	£bn	£bn	£bn	£bn
CET1	30.6	30.6	32.0	32.0
Tier1	34.7	36.2	36.0	39.6
Total	41.2	44.2	42.8	47.9
RWAs				
Credit risk	137.9	137.9	144.7	144.7
Counterparty credit risk	13.6	13.6	15.4	15.4
Market risk	14.8	14.8	17.0	17.0
Operational risk	22.4	22.4	23.8	23.8
Total RWAs	188.7	188.7	200.9	200.9
Capital adequacy ratios	%	%	%	%
CET1	16.2	16.2	15.9	15.9
Tier 1	18.4	19.2	17.9	19.7
Total	21.8	23.4	21.3	23.9
Leverage ratios	2018		2017	
Tier 1 capital (£bn)	34.7	36.2	36.0	39.6
CRR leverage exposure (£bn)	644.5	644.5	679.1	679.1
CRR leverage ratio (%)	5.4%	5.6%	5.3%	5.8%
Average Tier 1 capital (£bn) (2)	35.7	37.9	36.4	40.0
Average leverage exposure (£bn) (2)	665.2	665.2	692.5	692.5
Average leverage ratio (%) (2)	5.4%	5.7%	5.3%	5.8%
UK leverage ratio	6.2%	6.5%	6.1%	6.7%

Notes:

(1) CRR as implemented by the Prudential Regulation Authority in the UK, with effect from 1 January 2014. All regulatory adjustments and deductions to CET1 have been applied in full for both bases.

(2) Based on the daily average of on-balance sheet items and three month-end average of off-balance sheet items (2017 three month-end average of both on and off-balance sheet items).

Liquidity key metrics

The table below sets out the key liquidity and related metrics monitored by RBS.

2018	RBS	UK DoLSub
Liquidity coverage ratio (1)	158%	153%
Stressed outflow coverage (2)	154%	147%
Net stable funding ratio (3)	141%	144%
2017		
Liquidity coverage ratio (1)	152%	
Stressed outflow coverage (2)	168%	
Net stable funding ratio (3)	132%	

Notes:

(1) On 1 October 2015 the LCR became the PRA s primary regulatory liquidity standard. It is a Pillar 1 metric to which the PRA apply Pillar 2 add-ons. The published LCR excludes Pillar 2 add-ons. RBS calculates the LCR using its own interpretations of the EU LCR Delegated Act, which may change over time and may not be fully comparable with those of other financial institutions.

(2) RBS s stressed outflow coverage (SOC) is an internal measure calculated by reference to liquid assets as a percentage of net stressed contractual and behavioural outflows over three months under the worst of three severe stress scenarios of a market-wide stress, an idiosyncratic stress and a combination of both as per ILAAP. This assessment is performed in accordance with PRA guidance.

(3) In November 2016, the European Commission published its proposal for NSFR rules within the EU as part of its CRR2 package of regulatory reforms. CRR2 NSFR is expected to become the regulatory requirement in future within the EU and the UK. RBS has changed its policy on the NSFR to align with its interpretation of the CRR2 proposals with effect from 1 January 2018. The pro forma CRR2 NSFR at 31 December 2017 under CRR2 proposals is estimated to be 139%.

Capital and risk management

Capital, liquidity and funding risk continued

Capital and leverage: Capital resources (audited)

Capital, RWAs and capital adequacy ratios, on the basis of end-point Capital Requirements Regulation (CRR) and transitional rules, calculated in accordance with PRA definitions, are set out below.

	2018		2017	
		PRA	PRA	
	End-point	transitional	End-point	transitional
	CRR basis	basis	CRR basis	basis
	£m	£m	£m	£m
Shareholders equity (excluding non-controlling interests)				
Shareholders equity	45,736	45,736	48,330	48,330
Preference shares - equity	(496)	(496)	(2,565)	(2,565)
Other equity instruments	(4,058)	(4,058)	(4,058)	(4,058)
	41,182	41,182	41,707	41,707
Regulatory adjustments and deductions				
Own credit	(405)	(405)	(90)	(90)
Defined benefit pension fund adjustment	(394)	(394)	(287)	(287)
Cash flow hedging reserve	191	191	(227)	(227)
Deferred tax assets	(740)	(740)	(849)	(849)
Prudential valuation adjustments	(494)	(494)	(496)	(496)
Goodwill and other intangible assets	(6,616)	(6,616)	(6,543)	(6,543)
Expected losses less impairments	(654)	(654)	(1,286)	(1,286)
Foreseeable ordinary and special dividends	(1,326)	(1,326)		
Other regulatory adjustments	(105)	(105)	28	28
	(10,543)	(10,543)	(9,750)	(9,750)
CET1 capital	30,639	30,639	31,957	31,957
Additional Tier 1 (AT1) capital				
Qualifying instruments and related share premium	4,051	4,051	4,041	4,041
Qualifying instruments and related share premium subject to phase out		1,393		3,416
Qualifying instruments issued by subsidiaries and held by third parties subject to phase out		140		140
AT1 capital	4,051	5,584	4,041	7,597
Tier 1 capital	34,690	36,223	35,998	39,554
Qualifying Tier 2 capital				
Qualifying instruments and related share premium	6,301	6,386	6,396	6,501

Qualifying instruments issued by subsidiaries and held by third parties	182	1,565	369	1,876
Tier 2 capital	6,483	7,951	6,765	8,377
Total regulatory capital	41,173	44,174	42,763	47,931

The table below analyses the movement in end-point CRR CET1, AT1 and Tier 2 capital for the year.

	CET1 £m	AT1 £m	Tier 2 £m	Total £m
At 1 January 2018	31,957	4,041	6,765	42,763
Profit for the year	1,381			1,381
Own credit	(315)			(315)
Share capital and reserve movements in respect of employee share schemes	77			77
Ordinary shares issued	135			135
Foreign exchange reserve	308			308
FVOCI reserves	88			88
Goodwill and intangibles deduction	(73)			(73)
Deferred tax assets	109			109
Prudential valuation adjustments	2			2
Expected loss less impairment	632			632
Pension contribution	(1,476)			(1,476)
Capital instruments issued			(89)	(89)
Net dated subordinated debt/grandfathered instruments			(537)	(537)
Foreign exchange movements	(734)		334	(400)
Foreseeable ordinary and special dividends	(1,326)			(1,326)
Other movements	(126)	10	10	(106)
At 31 December 2018	30,639	4,051	6,483	41,173

Capital and risk management

Capital, liquidity and funding risk continued

Leverage exposure

The leverage exposure is based on the CRR Delegated Act.

	End-point basis(1)	
	2018	2017
Leverage exposure	£bn	£bn
Cash and balances at central banks	88.9	98.3
Trading assets	75.1	86.0
Derivatives	133.3	160.8
Loans	318.0	321.6
Other assets	78.9	71.4
Total assets	694.2	738.1
Derivatives		
- netting and variation margin	(141.3)	(161.7)
- potential future exposures	42.1	49.4
Securities financing transactions gross up	2.1	2.3
Undrawn commitments (analysis below)	50.3	53.1
Regulatory deductions and other adjustments	(2.9)	(2.1)
CRR Leverage exposure	644.5	679.1
Claims on central banks	(85.0)	(92.0)
UK leverage exposure	559.5	587.1

Notes:

(1) Based on end-point CRR Tier 1 leverage exposure under the CRR Delegated Act.

(2) The UK leverage ratio excludes central bank claims from the leverage exposure where deposits held are denominated in the same currency and of contractual maturity that is equal or longer than that of the central bank claims.

Weighted undrawn commitments

The table below provides a breakdown of weighted undrawn commitments.

	2018	2017
	£bn	£bn
Unconditionally cancellable credit cards	2.0	2.1
Other unconditionally cancellable items	7.1	4.7
Unconditionally cancellable items (1)	9.1	6.8
Undrawn commitments <1 year which may not be cancelled	1.7	1.8
Other off-balance sheet items with 20% credit conversion factor (CCF)	0.6	0.6
Items with a 20% CCF	2.3	2.4
Revolving credit risk facilities	27.1	27.0
Term loans	3.5	3.6
Mortgages	0.2	
Other undrawn commitments >1 year which may not be cancelled & off-balance sheet	2.2	2.1
Items with a 50% CCF	33.0	32.7
Items with a 100% CCF	5.9	11.2
Total	50.3	53.1

Note:

(1) Based on a 10% CCF.

Capital and risk management

Capital, liquidity and funding risk continued

Loss absorbing capital

The following table illustrates the components of estimated loss absorbing capital (LAC) in RBSG plc and operating subsidiaries and includes external issuances only. The table is prepared on a transitional basis, including the benefit of regulatory capital instruments issued from operating companies, to the extent they meet MREL criteria. For further details regarding regulatory requirements in relation to MREL, refer to page 109.

The roll-off profile relating to senior debt and subordinated debt instruments is set out on the next page.

	2018				2017			
	Par value (1)	Balance sheet value	Regulatory value (2)	LAC value (3)	Par value (1)	Balance sheet value	Regulatory value (2)	LAC value (3)
	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn
CET1 capital (4)	30.6	30.6	30.6	30.6	32.0	32.0	32.0	32.0
Tier 1 capital: end-point CRR compliant AT1								
of which: RBSG (holdco)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
of which: RBSG operating subsidiaries (opcos)								
	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Tier 1 capital: end-point CRR non compliant								
of which: holdco	1.4	1.6	1.4	0.5	3.5	3.6	3.5	2.6
of which: opcos	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	1.5	1.7	1.5	0.6	3.6	3.7	3.6	2.7
Tier 2 capital: end-point CRR compliant								
of which: holdco	6.8	6.7	6.3	5.1	6.5	6.5	6.4	4.9
of which: opcos	0.5	0.5	0.3	0.5	2.3	2.4	0.5	0.5
	7.3	7.2	6.6	5.6	8.8	8.9	6.9	5.4
Tier 2 capital: end-point CRR non compliant								
of which: holdco	0.1	0.1	0.1	0.1	0.3	0.4	0.1	0.1
of which: opcos	1.9	2.0	1.4	1.6	2.1	2.3	1.5	2.0
	2.0	2.1	1.5	1.7	2.4	2.7	1.6	2.1
Senior unsecured debt securities issued by:								
RBSG holdco	16.8	16.8		15.5	9.3	9.2		8.3
RBS opcos	17.1	16.9			14.4	14.7		
	33.9	33.7		15.5	23.7	23.9		8.3
Total	79.3	79.3	44.2	58.0	74.5	75.2	48.1	54.5
RWAs				188.7				200.9
CRR leverage exposure				644.5				679.1

LAC as a ratio of RWAs	30.7%	27.1%
LAC as a ratio of CRR leverage exposure	9.0%	8.0%

Notes:

(1) Par value reflects the nominal value of securities issued.

(2) Regulatory capital instruments issued from operating companies are included in the transitional LAC calculation, to the extent they meet the MREL criteria.

(3) LAC value reflects RBS s interpretation of the Bank of England s approach to setting a minimum requirement for own funds and eligible liabilities (MREL), published in June 2018. MREL policy and requirements remain subject to further potential development, as such RBS estimated position remains subject to potential change. Liabilities excluded from LAC include instruments with less than one year remaining to maturity, structured debt, operating company senior debt, and other instruments that do not meet the MREL criteria. Includes Tier 1 and Tier 2 securities prior to incentive to redeem.

(4) Corresponding shareholders equity was £45.7 billion (2017 - £48.3 billion).

(5) Regulatory amounts reported for AT1, Tier 1 and Tier 2 instruments are before grandfathering restrictions imposed by CRR.

Capital and risk management

Capital, liquidity and funding risk continued

Roll-off profile

The following table illustrates the roll-off profile and weighted average spreads of RBS s major wholesale funding programmes.

Senior debt roll-off profile (1)	As at and for year ended 31 December	Roll-off profile					
RBSG	2018	H1 2019	H2 2019	2020	2021	2022 & 2023	2024 & later
- amount (£m)	16,830	535	781	2		7,037	8,474
- weighted average rate spread (bps)	205	129	283	162		224	187
NWM Plc							
- amount (£m)	16,523	3,186	3,239	4,704	2,066	2,022	1,306
- weighted average rate spread (bps)	102	13	177	123	91	80	117
NatWest Plc							
- amount (£m)	329	253	77				
- weighted average rate spread (bps)	7	4	15				
Securitisation							
- amount (£m)	1,375						1,375
- weighted average rate spread (bps)	418						418
Covered bonds							
- amount (£m)	5,367			3,145			2,222
- weighted average rate spread (bps)	122			99			156
Total notes issued (£m)	40,424	3,974	4,097	7,852	2,066	9,059	13,377
Weighted average spread	158	27	194	113	91	192	200
Subordinated debt instruments roll-off profile (2)							
RBSG (£m)	6,815	1,003				4,049	1,763
NWM Plc (£m)	658		36	99		450	73
NatWest Plc (£m)	1,159	727			343	90	
NWM N.V. (£m)	668	147	65	11		106	339
UBI DAC (£m)	76						76
Total (£m)	9,377	1,876	101	110	343	4,695	2,252

Notes:

(1) Based on final contractual instrument maturity.

(2) Based on first call date of instrument, however this does not indicate RBS s strategy on capital and funding management. The table above does not include debt accounted Tier 1 instruments although those instruments form part of the total subordinated debt balance.

(3) The weighted average spread reflects the average net funding cost to RBS and is calculated on an indicative basis.

(4) The roll-off table is based on sterling-equivalent balance sheet values.

Risk-weighted assets

The table below analyses the movement in credit risk RWAs on the end-point CRR basis during the year, by key drivers.

	Credit risk £bn	Counterparty credit risk £bn	Market risk £bn	Operational risk £bn	Total RWAs £bn
At 1 January 2018 (1)	144.6	15.4	17.0	23.8	200.8
Foreign exchange movement	1.0	(0.1)			0.9
Business movements	(11.3)	(0.9)	(1.4)	(1.4)	(15.0)
Risk parameter changes (2)	(0.9)	(0.1)			(1.0)
Methodology changes			(0.2)		(0.2)
Model updates	4.5		(0.6)		3.9
Other movements		(0.7)			(0.7)
At 31 December 2018	137.9	13.6	14.8	22.4	188.7

Notes:

(1) There was a £0.1 billion reduction in RWAs from 31 December 2017 to 1 January 2018 reflecting the day one impact of the adoption of IFRS 9.

(2) Risk parameter changes relate to changes in credit quality metrics of customers and counterparties (such as probability of default and loss given default) as well as IRB model changes relating to counterparty credit risk in line with EBA Pillar 3 Guidelines.

Capital and risk management

Capital, liquidity and funding risk continued

RWAs by segment (restated: see Note 4 for details)

The chart below illustrates the concentration of risk-weighted assets by segment.

The table below analyses the movement in end-point CRR RWAs by segment during the year.

	Ulster Bank	Commercial	Private	NatWest	Central items

	UK PB	RoI	Banking	Banking	RBSI	Markets	& other	Total
Total RWAs	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn
At 1 January 2018 (1)	31.5	18.0	83.3	9.1	5.1	52.9	0.9	200.8
Foreign exchange movement		0.1	0.3			0.4	0.1	0.9
Business movements	0.7	(2.2)	(5.9)	0.3	0.3	(8.3)	0.1	(15.0)
Risk parameter changes (2)	0.7	(1.2)	(0.4)				(0.1)	(1.0)
Methodology changes							(0.2)	(0.2)
Model updates	1.5		3.1		(0.1)	(0.6)		3.9
Other movements	(0.1)		(2.0)		1.6	0.5	(0.7)	(0.7)
At 31 December 2018	34.3	14.7	78.4	9.4	6.9	44.9	0.1	188.7
Credit risk	26.7	13.8	70.1	8.3	6.2	12.7	0.1	137.9
Counterparty credit risk						13.6		13.6
Market risk						14.8		14.8
Operational risk	7.6	0.9	8.3	1.1	0.7	3.8		22.4
Total RWAs	34.3	14.7	78.4	9.4	6.9	44.9	0.1	188.7

Notes:

(1) There was a £0.1 billion reduction in RWAs from 31 December 2017 to 1 January 2018 reflecting the day one impact of the adoption of IFRS 9.

(2) Risk parameter changes relate to changes in credit quality metrics of customers and counterparties (such as probability of default and loss given default) as well as IRB model changes relating to counterparty credit risk in line with EBA Pillar 3 Guidelines.

Key points

- RWAs decreased by £12.2 billion (excluding the day one impact of the adoption of IFRS 9) in 2018 primarily driven by the legacy business in NatWest Markets, the impact of capital initiatives in Commercial Banking and Ulster Bank RoI asset sale. These reductions were partially offset by increases in UK PB and RBSI.

- The decrease in NatWest Markets primarily driven by the legacy business, in addition to reductions in the core business.

- The reduction within Commercial Banking was due to active capital management, partially offset by the impact of model updates and underlying business growth.

- Ulster Bank RoI RWAs reduced principally reflecting the impact of a non-performing loan sale and an improvement in credit metrics.

- RWAs in UK PB increased mainly due to model updates and movements in risk parameters.

- As part of the preparation for ICB ring-fencing, assets have transferred from UK PB, Commercial Banking and Treasury into RBSI and NatWest Markets which are shown in other movements. Other movements also reflects NWM Securities Inc. being granted the regulatory waiver to use the AIRB approach to calculate it s counterparty credit risk capital requirements.

Capital and risk management

Capital, liquidity and funding risk continued

Liquidity portfolio (audited)

The table below shows the liquidity portfolio by product, liquidity value and carrying value. Liquidity value is lower than carrying value as it is stated after discounts (or haircuts) applied to instruments by the Bank of England and other central banks. Secondary liquidity comprises assets eligible for discount at central Banks but these do not form part of the liquid asset portfolio reported for regulatory LCR purposes or internal stressed outflow coverage purposes.

	Liquidity value				
	2018			2017	
	RBS (1)	UK DoLSub (2)	NWM Plc	RBS	UK DoLSub (2)
	£m	£m	£m	£m	£m
Cash and balances at central banks	83,781	59,745	11,005	93,657	91,377
Central and local government bonds					
AAA rated governments	8,188	4,386	615	3,944	2,760
AA- to AA+ rated governments and US agencies	35,683	25,845	5,256	26,233	24,084
	43,871	30,231	5,871	30,177	26,844
Primary liquidity	127,652	89,976	16,876	123,834	118,221
Secondary liquidity (3)	70,231	69,642	344	62,555	62,144
Total liquidity value	197,882	159,618	17,220	186,389	180,365
Total carrying value	225,039	186,340	17,388	209,892	203,733

Notes:

(1) RBS includes UK DoLSub, NatWest Markets plc and other significant operating subsidiaries that hold liquidity portfolios. These include RBS International, NWM N.V. and Ulster Bank Ireland DAC who hold managed portfolios that comply with local regulations that may differ from PRA rules.

(2) UK DoLSub comprises RBS s four licensed deposit-taking UK banks within the ring-fenced bank: National Westminster Bank Plc The Royal Bank of Scotland plc, Coutts & Co and Ulster Bank Limited. The reduction in the UK DoLSub liquidity balances during 2018 is driven by NatWest Markets and RBS International managing liquidity on a stand-alone basis, with NatWest Markets plc leaving the UK DoLSub during H2 2018 and RBS International building its own liquidity portfolio.

(3) Comprises assets eligible for discounting at the Bank of England and other central banks.

Capital and risk management

Capital, liquidity and funding risk continued

Funding sources (audited)

The table below shows the carrying values of the principal funding sources based on contractual maturity. Balance sheet captions include balances held at all classifications under IFRS 9/IAS 39 but excludes derivative cash collateral.

	2018			2017		
	Short-term less than 1 year £m	Long-term more than 1 year £m	Total £m	Short-term less than 1 year £m	Long-term more than 1 year £m	Total £m
Personal and corporate deposits						
Personal (1)	178,293	1,499	179,792	173,314	1,497	174,811
Corporate (2)	131,575	142	131,717	127,708	861	128,569
	309,868	1,641	311,509	301,022	2,358	303,380
Financial institutions deposits						
Banks (3)	6,758	15,865	22,623	7,480	19,595	27,075
Non-bank financial institutions (NBFI) (4)	46,800	564	47,364	52,284	1,091	53,375
	53,558	16,429	69,987	59,764	20,686	80,450
Debt securities in issue						
Commercial papers (CP s) and certificates of deposits (CD S)	3,157		3,157	4,637		4,637
Medium-term notes	4,928	25,596	30,524	2,316	16,902	19,218
Covered bonds		5,367	5,367	987	5,321	6,308
Securitisations		1,375	1,375		396	396
	8,085	32,338	40,423	7,940	22,619	30,559
Subordinated liabilities	299	10,236	10,535	2,383	10,339	12,722
Repos (5)						
Sovereign	405		405	5,243		5,243
Financial institutions	29,664		29,664	31,891		31,891
Corporate	291		291	1,287		1,287
	30,360		30,360	38,421		38,421
Total funding	402,170	60,644	462,814	409,530	56,002	465,532
Of which: available in resolution (6)		*22,909*	*22,909*		*15,840*	*15,840*
CET 1 capital			30,639			31,957
CRR Leverage exposure			644,498			679,120
Funded assets			560,886			577,213
Funding coverage of CET 1 capital			15			15
Funding as a % of leverage exposure			72%			69%
Funding as a % of funded assets			83%			81%
Funding available in resolution as a % of CET1 capital			75%			50%

Funding available in resolution as a % of leverage exposure	4%	2%

Notes:

(1) Includes £206 million (2017 - £190 million) of DFV deposits included in other financial liabilities on the balance sheet.
(2) Includes £428 million (2017 - £691 million) of HFT deposits included in trading liabilities and nil (2017 - £561 million) of DFV deposits included in other financial liabilities on the balance sheet.
(3) Includes £267 million (2017 - £68 million) of HFT deposits included in trading liabilities on the balance sheet. Includes £14.0 billion (2017 - £19.0 billion) relating to Term Funding Scheme participation and £1.8 billion (2017 - £1.8 billion) relating to RBS s participation in central bank financing operations under the European Central Bank s Targeted Long-term refinancing operations.
(4) Includes £1,093 million (2017 - £543 million) of HFT deposits included in trading liabilities and £7 million (2017 - £124 million) of DFV deposits included in other financial liabilities on the balance sheet.
(5) Includes held-for-trading repos of £25,645 million (2017 - £28,363 million) and amortised cost repos of £4,715 million (2017 - £10,058 million).
(6) Eligible liabilities (as defined in the Banking Act 2009 as amended from time to time) that meet the eligibility criteria set out in the regulations, rules, policies, guidelines, or statements of the Bank of England including the Statement of Policy published by the Bank of England in June 2018. The balance consist of £16 billion (2017 - £8 billion) under debt securities in issue (senior MREL) and £7 billion (2017 - £8 billion) under subordinated liabilities.

Capital and risk management

Capital, liquidity and funding risk continued

Contractual maturity (audited)

This table shows the residual maturity of financial instruments, based on contractual date of maturity of RBS s banking activities, including hedging derivatives. Trading activities comprising Mandatory fair value through profit or loss (MFVTPL) assets and held-for-trading (HFT) liabilities have been excluded from the maturity analysis due to their short-term nature and are shown in total in the table below.

	Banking activities										
	Less than 1 month	1-3 months	3-6 months	6 months - 1 year	Subtotal	1-3 years	3-5 years	More than 5 years	Total	Trading activities	Total
2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central bank balances	88,897				88,897				88,897		88,897
Trading assets										75,119	75,119
Derivatives	224			529	753	994	345	159	2,251	131,098	133,349
Settlement balances	2,928				2,928				2,928		2,928
Loans to banks	11,729	182	860	62	12,833	105	9		12,947		12,947
Loans to customers (1)	35,800	8,350	8,626	17,896	70,672	53,500	41,848	142,387	308,407		308,407
Personal	5,733	2,475	3,350	6,233	17,791	21,949	18,658	120,728	179,126		179,126
Corporate	26,260	4,499	4,118	7,868	42,745	27,413	21,159	20,417	111,734		111,734
NBFI	3,807	1,376	1,158	3,795	10,136	4,138	2,031	1,242	17,547		17,547
Other financial assets	1,252	3,165	2,473	4,754	11,644	13,904	10,630	21,669	57,847	1,638	59,485
Total financial assets	140,830	11,697	11,959	23,241	187,727	68,503	52,832	164,215	473,277	207,855	681,132
2017											
Total financial assets	149,774	12,333	11,190	22,517	195,814	64,939	52,064	168,380	481,197	243,867	725,064
Bank deposits	4,585	1,891	16	5	6,497	13,799	2,000	60	22,356		22,356
Bank repos	517	424			941				941		941
Customer repos	3,774				3,774				3,774		3,774
Customer deposits	337,964	9,310	4,803	3,297	355,374	1,718	11	37	357,140		357,140
Personal	170,746	3,080	1,835	2,426	178,087	1,499			179,586		179,586
Corporate	132,994	3,056	1,842	631	138,523	83	1	35	138,642		138,642
NBFI	34,224	3,174	1,126	240	38,764	136	10	2	38,912		38,912
Settlement balances	3,066				3,066				3,066		3,066
Trading liabilities										72,350	72,350
Derivatives		181	306		487	1,062	416	978	2,943	125,954	128,897
Other financial liabilities	202	1,386	2,499	4,153	8,240	9,542	10,536	11,414	39,732		39,732
CPs and CDs	173	1,128	955	901	3,157				3,157		3,157
Medium-term notes	7	225	1,490	3,149	4,871	6,397	10,536	7,817	29,621		29,621
Covered bonds						3,145		2,222	5,367		5,367
Securitisations								1,375	1,375		1,375
Customer deposits DFV	22	33	54	103	212				212		212
Subordinated liabilities	16	39	164	80	299	450	4,534	5,252	10,535		10,535
Other liabilities (2)	2,152				2,152				2,152		2,152
Total financial liabilities	352,276	13,231	7,788	7,535	380,830	26,571	17,497	17,741	442,639	198,304	640,943

2017

Total financial liabilities	360,684	10,564	8,155	6,647	386,050	16,882	23,262	17,167	443,361	232,917	676,278

Note:

(1) Loans to customers excludes £3,318 million (2017 - £3,814 million) of Impairment provisions.
(2) Represents notes in circulation.

Capital and risk management

Capital, liquidity and funding risk continued

Funding gap: maturity and segment analysis (restated: see Note 4 for details)

The contractual maturity of balance sheet assets and liabilities reflects the maturity transformation role banks perform, lending long-term but mainly obtaining funding through short-term liabilities such as customer deposits. In practice, the behavioural profiles of many liabilities show greater stability and longer maturity than the contractual maturity. This is particularly true of many types of retail and corporate deposits which, despite being repayable on demand or at short notice, have demonstrated very stable characteristics even in periods of acute stress.

In its analysis to assess and manage asset and liability maturity gaps, RBS determines the expected customer behaviour through qualitative and quantitative techniques. These incorporate observed customer behaviours over long periods of time. This analysis is subject to governance through RBS ALCo Technical committee down to a segment level.

The net behavioural funding surplus/(gap) and contractual maturity analysis is set out below.

	Contractual maturity (1)												Behavioural maturity			
	Loans to customers				Customer accounts				Net surplus/(gap)				Net surplus/(gap)			
2018	Less than 1 year £bn	1-5 years £bn	Greater than 5 years £bn	Total £bn	Less than 1 year £bn	1-5 years £bn	Greater than 5 years £bn	Total £bn	Less than 1 year £bn	1-5 years £bn	Greater than 5 years £bn	Total £bn	Less than 1 year £bn	1-5 years £bn	Greater than 5 years £bn	Total £bn
UK PB	11	34	104	149	145	1		146	134	(33)	(104)	(3)	(12)	1	8	(3)
UB RoI	2	6	11	19	18			18	16	(6)	(11)	(1)	1	(3)	1	(1)
CB	39	43	20	102	133	1		134	94	(42)	(20)	32	9	35	(12)	32
PB	5	5	4	14	28			28	23	(5)	(4)	14	2	1	11	14
RBSI	6	5	3	14	28			28	22	(5)	(3)	14	1	3	10	14
NWM	17	3	1	21	13			13	(4)	(3)	(1)	(8)	(2)	(4)	(2)	(8)
Centre					1			1	1			1	1			1
Total	80	96	143	319	366	2		368	286	(94)	(143)	49		33	16	49
2017																
Total	83	93	147	323	363	4		367	280	(89)	(147)	44	(6)	24	26	44

Note:

(1) Loans to customers and customer accounts include trading assets and trading liabilities respectively and excludes reverse repos and repos.

Key points

- The net customer funding surplus has increased by £5billion during 2018 to £49billion driven by £1billion deposit growth and £4billion lending reduction

- Customer deposits and customer loans are broadly matched from a behavioural perspective.

- The net funding surplus in 2018 is concentrated in the longer dated buckets, reflecting the stable characteristics of customer deposits and lending that is behaviourally shorter dated.

Encumbrance (audited)

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, those that are:

Already encumbered and used to support funding currently in place through own-asset securitisations, covered bonds and securities repurchase agreements.

Pre-positioned with central banks as part of funding schemes and those encumbered under such schemes.

Not currently encumbered. In this category, RBS has in place an enablement programme which seeks to identify assets capable of being encumbered and to identify the actions to facilitate such encumbrance whilst not affecting customer relationships or servicing.

Programmes to manage the use of assets to support funding actively are established within UK DoLSub, UBI DAC and NatWest Markets Plc.

Capital and risk management

Capital, liquidity and funding risk continued

Balance sheet encumbrance (audited)

The table shows the retained encumbered assets of the Group. Derivatives and Reverse Repos are disclosed within the credit risk section on pages 159 and 160.

	Encumbered as a result of transactions with counterparties other than central banks			Pre-positioned & encumbered assets held at central	Unencumbered assets not pre-positioned with central banks				
2018	Covered debts & securitisations (1) £bn	SFT, Derivatives and similar (2) £bn	Total (3) £bn	banks (4) £bn	Readily available (5) £bn	Other available (6) £bn	Cannot be used (7) £bn	Total £bn	Total £bn
Cash and balances at central banks		6.7	6.7		82.2			82.2	88.9
Trading assets		49.1	49.1			1.3	24.7	26.0	75.1
Derivatives							133.3	133.3	133.3
Settlement balances							2.9	2.9	2.9
Loans to banks - amortised cost	0.4	1.0	1.4		6.6	0.4	4.5	11.5	12.9
Loans to customers - amortised cost									
- residential mortgages									
- UK	7.1		7.1	110.1	20.9	11.5		32.4	149.6
- RoI	2.8		2.8	2.1	8.9			8.9	13.8
- credit cards					3.7	0.3		4.0	4.0
- personal loans					5.8	2.6	1.8	10.2	10.2
- other	2.4	2.4	4.8	4.9	2.3	91.0	24.5	117.8	127.5
Other financial assets		10.4	10.4		46.0	0.8	2.3	49.1	59.5
Intangible assets							6.6	6.6	6.6
Other assets						2.3	7.6	9.9	9.9
Total assets	12.7	69.6	82.3	117.1	176.4	110.2	208.2	494.8	694.2
2017									
Total assets	13.7	69.9	83.6	113.1	180.0	118.6	242.8	541.4	738.1

Notes:

(1) Covered debts and securitisations include securitisations, conduits, covered bonds and secured notes.
(2) Repos and other secured deposits, cash, coin and nostro balance held with the Bank of England as collateral against deposits and notes in circulation are included here rather than within those positioned at the central bank as they are part of normal banking operations. Securities financing transactions (SFT) include collateral given to secure derivative liabilities.
(3) Total assets encumbered as a result of transactions with counterparties other than central banks are those that have been pledged to provide security and are therefore not available to secure funding or to meet other collateral needs.
(4) Assets pre-positioned at the central banks include loans provided as security as part of funding schemes and those encumbered under such schemes.

(5) Readily available for encumbrance: including assets that have been enabled for use with central banks but not pre-positioned; cash and high quality debt securities that form part of RBS s liquidity portfolio and unencumbered debt securities.
(6) Other assets that are capable of being encumbered are those assets on the balance sheet that are available for funding and collateral purposes but are not readily realisable in their current form. These assets include loans that could be prepositioned with central banks but have not been subject to internal and external documentation review and diligence work.
(7) Cannot be used includes:
   (a) Derivatives, reverse repurchase agreements and trading related settlement balances.
   (b) Non-financial assets such as intangibles, prepayments and deferred tax.
   (c) Loans that cannot be pre-positioned with central banks based on criteria set by the central banks, including those relating to date of origination and level of documentation.
   (d) Non-recourse invoice financing balances and certain shipping loans whose terms and structure prohibit their use as collateral.
(8) In accordance with market practice, RBS employs securities recognised on the balance sheet, and securities received under reverse repo transactions as collateral for repos.

Capital and risk management

Credit risk

Definition

Credit risk is the risk that customers fail to meet their contractual obligation to settle outstanding amounts.

The following disclosures in this section are audited:

- Forbearance.
- Impairment, provisioning and write-offs.
- Transition from IAS 39 to IFRS 9.
- Key elements of IFRS 9 impairment provisions:
  - Economic loss drivers (excluding economic parameters).
  - IFRS 9 credit risk modelling.
  - Significant increase in credit risk.
  - Asset lifetimes.
- Measurement uncertainty and ECL sensitivity analysis.
- Banking activities (except PDs and additional Stage 2 and Stage 3 analysis).
- Trading activities.

Sources of risk

The principal sources of credit risk for RBS are lending, off-balance sheet products, derivatives and securities financing, and debt securities. RBS is also exposed to settlement risk through foreign exchange, trade finance and payments activities.

Key developments in 2018

- Asset quality (AQ) remained stable with 61% of the loan exposure and other financial assets rated AQ1-AQ4 (1 January 2018 62%) (equating to an indicative investment rating of BBB- or better).

- New mortgage lending declined in 2018 (£32.8 billion compared to £33.9 billion in 2017). The overall personal portfolio increased by £1.7 billion (principally driven by growth of the mortgage portfolio).

- While overall credit quality remained stable in the Wholesale portfolio, risk appetite was tightened in certain sectors where it was considered appropriate based on leading indicator information.

- IFRS 9 Financial Instruments, which covers credit provisions, was implemented with effect from 1 January 2018. In line with expectations, the new accounting standard resulted in an overall increase in provisions compared with the previous accounting standard IAS 39. Further detail is provided later in the report.

- Impairment provisions totalled £3.4 billion at the year end representing coverage on amortised cost loans excluding balances at central banks of 1.1%.

- The ECL charge for the year was £398 million. This reflected the relatively stable external environment.

Risk governance

Credit risk management activities include:

- Defining credit risk appetite for the management of concentration risk and credit policy to establish the key risks in the process of providing credit and the controls that must be in place to mitigate them.

- Approving credit limits for customers.

- Oversight of the first line of defence to ensure that credit risk remains within the risk appetite set by the Board and that credit policy controls are being operated adequately and effectively.

The Chief Credit Officer, Ring-Fenced Bank, chairs the Wholesale and Retail Credit Risk Committees. These committees provide oversight of the aggregated RBS credit risk profile and review, recommend or approve risk appetite limits (depending on their materiality) within the appetite set by the RBS Board.

The Chief Credit Officer, Ring-Fenced Bank, also chairs provisions committees in Personal and Ulster, and CPB. These committees review and approve individually assessed net expected credit losses (ECLs) above agreed approval thresholds and review and approve the adequacy of all portfolio level ECLs in the businesses. Similar provisions committees operate in Ulster Bank RoI, NatWest Markets and RBSI.

Risk appetite

RBS s approach to lending is governed by comprehensive credit risk appetite frameworks. The frameworks are closely monitored and actions are taken to adapt lending criteria as appropriate. Credit risk appetite aligns to the strategic risk appetite set by the Board, which includes capital adequacy, earnings volatility, funding and liquidity, and stakeholder confidence. The credit risk appetite frameworks have been designed to reflect factors (for example, strategic and emerging risks) that influence the ability to operate within risk appetite. Tools such as stress testing and economic capital are used to measure credit risk volatility and develop links between the credit risk appetite frameworks and risk appetite limits. The frameworks are supported by a suite of transaction acceptance standards that set out the risk parameters within which franchises should operate.

The Personal credit risk appetite framework sets limits that measure and control the quality of both existing and new business for each relevant franchise or business segment. The actual performance of each portfolio is tracked relative to these limits and management action is taken where necessary. The limits apply to a range of credit risk-related measures including expected loss at both portfolio and product level, projected credit default rates across products and the loan-to-value (LTV) ratio of the Personal mortgage portfolios.

For Wholesale, the four formal frameworks used and their basis for classification are detailed in the following table.

	Basis for classification	
Framework	Measure	Other
Single name concentration	Exposure	Risk based on loss given default for a given probability of default
Sector		Risk based on economic capital and other qualitative factors
Country		Probability of default of a sovereign and average loss given default
Product and asset class		Risk based on heightened risk characteristics

Risk controls

Credit policy standards are in place for both the Wholesale and Personal portfolios. They are expressed as a set of mandatory controls.

Risk identification and measurement

Credit stewardship

Risks are identified through relationship management and/or credit stewardship of portfolios or customers. Credit risk stewardship takes place throughout the customer relationship, beginning with the initial approval. It includes the application of credit assessment standards, credit risk mitigation and collateral, ensuring that credit documentation is complete and appropriate, carrying out regular portfolio or customer reviews and problem debt identification and management.

Capital and risk management

Credit risk continued

Risk models

The output of credit risk models is used in the credit approval process as well as for ongoing assessment, monitoring and reporting to inform risk appetite decisions. These models are divided into different categories. Where the calculation method is on an individual counterparty or account level, the models used will be probability of default (PD), loss given default (LGD), or exposure at default (EAD). The economic capital model is used for credit risk appetite setting.

Asset quality

All credit grades map to an asset quality scale, used for external financial reporting. For Wholesale customers, a master grading scale is used for internal management reporting across portfolios. Accordingly, measures of risk exposure may be aggregated and reported at differing levels of detail depending on stakeholder or business requirements. Performing loans are defined as AQ1-AQ9 (where the PD is less than 100%) and non-performing loans as AQ10 or Stage 3 under IFRS 9 (where the PD is 100%).

Risk mitigation

Risk mitigation techniques, as set out in the appropriate credit policies, are used in the management of credit portfolios across RBS. These techniques mitigate credit concentrations in relation to an individual customer, a borrower group or a collection of related borrowers. Where possible, customer credit balances are netted against obligations. Mitigation tools can include structuring a security interest in a physical or financial asset, the use of credit derivatives including credit default swaps, credit-linked debt instruments and securitisation structures, and the use of guarantees and similar instruments (for example, credit insurance) from related and third parties. Property is used to mitigate credit risk across a number of portfolios, in particular residential mortgage lending and commercial real estate (CRE).

The valuation methodologies for residential mortgage collateral and CRE are detailed below.

Residential mortgages RBS takes collateral in the form of residential property to mitigate the credit risk arising from mortgages. RBS values residential property during the loan underwriting process by either appraising properties individually or valuing them collectively using statistically valid models. RBS updates residential property values quarterly using the relevant residential property index namely:

Region	Index used
UK	Halifax quarterly regional house price index
Northern Ireland	UK House Price Index (published by the Land Registry)
Republic of Ireland	Central Statistics Office residential property price index

The current indexed value of the property is a component of the ECL provisioning calculation.

Commercial real estate valuations RBS has a panel of chartered surveying firms that cover the spectrum of geography and property sectors in which RBS takes collateral. Suitable valuers for particular assets are contracted through a single service agreement to ensure consistency of quality and advice. Valuations are commissioned when an asset is taken as security; a material increase in a facility is requested; or a default event is anticipated or has occurred. In the UK, an independent third-party market indexation is applied to update external valuations once they are more than a year old and every three years a formal independent valuation is commissioned.

In the Republic of Ireland, assets are revalued in line with the Central Bank of Ireland threshold requirements, which permits indexation for lower value assets, but demands regular Red Book valuations for distressed higher value assets. The current indexed value of the property is a component of the ECL provisioning calculation.

Counterparty credit risk

In addition to the credit risk management practices set out in this section, RBS mitigates counterparty credit risk arising from both derivatives transactions and repurchase agreements through the use of market standard documentation, enabling netting (for credit risk management only and not for accounting purposes), and through collateralisation.

Amounts owed by RBS to a counterparty are netted against amounts the counterparty owes RBS, in accordance with relevant regulatory and internal policies. Netting is only applied if a netting agreement is in place.

Risk assessment and monitoring

Practices for credit stewardship including credit assessment, approval and monitoring as well as the identification and management of problem debts differ between the Personal and Wholesale portfolios.

Personal

Personal customers are served through a lending approach that entails making a large number of small-value loans. To ensure that these lending decisions are made consistently, RBS analyses internal credit information as well as external data supplied from credit reference agencies (including historical debt servicing behaviour of customers with respect to both RBS and other lenders). RBS then sets its lending rules accordingly, developing different rules for different products.

The process is then largely automated, with each customer receiving an individual credit score that reflects both internal and external behaviours and this score is compared with the lending rules set. For relatively high-value, complex personal loans, including some residential mortgage lending, specialist credit managers make the final lending decisions. These decisions are made within specified delegated authority limits that are issued dependent on the experience of the individual.

Underwriting standards and portfolio performance are monitored on an ongoing basis to ensure they remain adequate in the current market environment and are not weakened materially to sustain growth.

Wholesale

Wholesale customers including corporates, banks and other financial institutions are grouped by industry sectors and geography as well as by product/asset class and are managed on an individual basis. Consideration is given to identifying groups of individual customers with sufficient inter-connectedness to merit assessment as a single risk.

A credit assessment is carried out before credit facilities are made available to customers. The assessment process is dependent on the complexity of the transaction.

For lower risk transactions below specific thresholds, credit decisions can be approved through self-sanctioning within the business. This process is facilitated through an auto-decision making system, which utilises scorecards, strategies and policy rules to provide a recommended credit decision. Such credit decisions must be within the approval authority of the relevant business sanctioner.

Capital and risk management

Credit risk continued

For all other transactions credit is only granted to customers following joint approval by an approver from the business and the credit risk function. The joint business and credit approvers act within a delegated approval authority under the Wholesale Credit Authorities Framework Policy. The level of delegated authority held by approvers is dependent on their experience and expertise with only a small number of senior executives holding the highest approval authority. Both business and credit approvers are accountable for the quality of each decision taken, although the credit risk approver holds ultimate sanctioning authority.

Transaction Acceptance Standards provide detailed transactional lending and risk acceptance metrics and structuring guidance. As such, these standards provide a mechanism to manage risk appetite at the customer/transaction level and are supplementary to the established credit risk appetite.

Credit grades (PD and LGD) are reviewed and if appropriate re-approved annually. The review process assesses borrower performance, including reconfirmation or adjustment of risk parameter estimates; the adequacy of security; compliance with terms and conditions; and refinancing risk.

A key aspect of credit risk stewardship is ensuring that, when signs of customer stress are identified, appropriate debt management actions are applied.

Problem debt management

Personal

Early problem identification

Pre-emptive triggers are in place to help identify customers that may be at risk of being in financial difficulty. These triggers are both internal, using RBS data and external information from credit reference agencies. Pro-active contact is then made with the customer to establish if they require help with managing their finances. By adopting this approach the aim is to prevent a customer s financial position deteriorating which may then require intervention from the Collections and Recoveries teams.

Personal customers experiencing financial difficulty are managed by the Collections team. If the Collections team is unable to provide appropriate support after discussing suitable options with the customer, management of that customer moves to the Recoveries team. If at any point in the Collections and Recoveries process, the customer is identified as being potentially vulnerable, the customer will be separated from the regular process and supported by a specialist team to ensure the customer receives appropriate support for their circumstances.

Collections

When a customer exceeds an agreed limit or misses a regular monthly payment the customer is contacted by RBS and requested to remedy the position. If the situation is not regularised then, where appropriate, the Collections team will become more fully involved and the customer will be supported by skilled debt management staff who endeavour to provide customers with bespoke solutions. Solutions include short-term account restructuring, refinance loans and forbearance which can include interest suspension and breathing space . In the event that an affordable/sustainable agreement with a customer cannot be reached, the debt will transition to the Recoveries team. For provisioning purposes, under IFRS 9, exposure to customers managed by the Collections team is categorised as Stage 2 and subject to a lifetime loss assessment.

In the Republic of Ireland, the relationship may pass to a specialist support team prior to any transfer to recoveries, depending on the outcome of customer financial assessment.

Recoveries

The Recoveries team will issue a notice of intention to default to the customer and, if appropriate, a formal demand, while also registering the account with credit reference agencies where appropriate. Following this, the customer s debt may then be placed with a third-party debt collection agency, or alternatively a solicitor, in order to agree an affordable repayment plan with the customer. Exposures subject to formal debt recovery are defaulted and categorised as Stage 3 impaired.

Wholesale

Early problem identification

Each segment and sector has defined early warning indicators to identify customers experiencing financial difficulty, and to increase monitoring if needed. Early warning indicators may be internal, such as a customer s bank account activity, or external, such as a publicly-listed customer s share price. If early warning indicators show a customer is experiencing potential or actual difficulty, or if relationship managers or credit officers identify other signs of financial difficulty they may decide to classify the customer within the Risk of Credit Loss framework.

Risk of Credit Loss framework

The framework focuses on Wholesale customers whose credit profiles have deteriorated since origination. Expert judgement is applied by experienced credit risk officers to classify cases into categories that reflect progressively deteriorating credit risk to RBS. There are two classifications which apply to non-defaulted customers within the framework Heightened Monitoring and Risk of Credit Loss. For the purposes of provisioning, all exposures subject to the framework are categorised as Stage 2 and subject to a lifetime loss assessment. The framework also applies to those customers that have met RBS s default criteria (AQ10 exposures). Defaulted exposures are categorised as Stage 3 impaired for provisioning purposes.

Heightened Monitoring customers are performing customers that have met certain characteristics, which have led to significant credit deterioration. Collectively, characteristics reflect circumstances that may affect the customer s ability to meet repayment obligations. Characteristics include trading issues, covenant breaches, material PD downgrades and past due facilities.

Heightened Monitoring customers require pre-emptive actions (outside the customer s normal trading patterns) to return or maintain their facilities within RBS s current risk appetite prior to maturity.

Risk of Credit Loss customers are performing customers that have met the criteria for Heightened Monitoring and also pose a risk of credit loss to RBS in the next 12 months (should mitigating action not be taken or not be successful).

Once classified as either Heightened Monitoring or Risk of Credit Loss, a number of mandatory actions are taken in accordance with policies. Actions include a review of the customer s credit grade, facility and security documentation and the valuation of securityDepending on the severity of the financial difficulty and the size of the exposure, the customer relationship strategy is reassessed by credit officers, by specialist credit risk or relationship management units in the relevant business, or by Restructuring.

Agreed customer management strategies are regularly monitored by both the business and credit teams. The largest Risk of Credit Loss exposures are regularly reviewed by a Risk of Credit Loss Committee. The committee members are experienced credit, business and restructuring specialists. The purpose of the committee is to review and challenge the strategies undertaken for customers that pose the largest risk of credit loss to RBS.

Capital and risk management

Credit risk continued

Appropriate corrective action is taken when circumstances emerge that may affect the customer s ability to service its debt (refer to Heightened Monitoring characteristics). Corrective actions may include granting a customer various types of concessions. Any decision to approve a concession will be a function of specific appetite, the credit quality of the customer, the market environment and the loan structure and security. All customers granted forbearance are classified Heightened Monitoring as a minimum.

Other potential outcomes of the relationship review are to: remove the customer from the Risk of Credit Loss framework, offer additional lending and continue monitoring, transfer the relationship to Restructuring if appropriate, or exit the relationship.

The Risk of Credit Loss framework does not apply to problem debt management for Business Banking customers in UK PBB. These customers are, where necessary, managed by specialist problem debt management teams, depending on the size of exposure or by the Business Banking recoveries team where a loan has been impaired.

Restructuring

For the Wholesale problem debt portfolio, customer relationships are mainly managed by the Restructuring team (excluding customers managed by UK PBB). The purpose of Restructuring is to protect RBS s capital. Where practicable, Restructuring does this by working with corporate and commercial customers to support their turnaround and recovery strategies and enable them to return to mainstream banking. Restructuring will always aim to recover capital in a fair and efficient manner.

Specialists in Restructuring work with customers experiencing financial difficulties and showing signs of financial stress. Throughout Restructuring s involvement the mainstream relationship manager will remain an integral part of the customer relationship, unless an exit strategy is deemed appropriate. The objective is to find a mutually acceptable solution, including restructuring of existing facilities, repayment or refinancing.

Where a solvent outcome is not possible, insolvency may be considered as a last resort. However, helping the customer return to financial health and restoring a normal banking relationship is always the preferred outcome.

Forbearance (audited)

Forbearance takes place when a concession is made on the contractual terms of a loan/debt in response to a customer s financial difficulties.

The aim of forbearance is to support and restore the customer to financial health while minimising risk. To ensure that forbearance is appropriate for the needs of the customer, minimum standards are applied when assessing, recording, monitoring and reporting forbearance.

A loan/debt may be forborne more than once, generally where a temporary concession has been granted and circumstances warrant another temporary or permanent revision of the loan s terms.

In the Personal portfolio, loans are considered forborne until they meet the exit criteria set out by the European Banking Authority. These include being classified as performing for two years since the last forbearance event, making regular repayments and the loan/debt being less than 30 days past due. Exit criteria are not currently applied for Wholesale portfolios.

Types of forbearance

Personal

In the Personal portfolio, forbearance may involve payment concessions and loan rescheduling (including extensions in contractual maturity), capitalisation of arrears and, in the Republic of Ireland only, temporary interest-only conversions. Forbearance is granted principally to customers with mortgages and less frequently to customers with unsecured loans. This includes instances where forbearance may be provided to customers with highly flexible mortgages.

Wholesale

In the Wholesale portfolio, forbearance may involve covenant waivers, amendments to margins, payment concessions and loan rescheduling (including extensions in contractual maturity), capitalisation of arrears, and debt forgiveness or debt-for-equity swaps.

Monitoring of forbearance

Personal

For Personal portfolios, forborne loans are separated and regularly monitored and reported while the forbearance strategy is implemented, until they exit forbearance.

Wholesale

In the Wholesale portfolio, customer PDs and facility LGDs are re-assessed prior to finalising any forbearance arrangement. The ultimate outcome of a forbearance strategy is highly dependent on the cooperation of the borrower and a viable business or repayment outcome. Where forbearance is no longer appropriate, RBS will consider other options such as the enforcement of security, insolvency proceedings or both, although these are options of last resort.

Provisioning for forbearance

Personal

The methodology used for provisioning in respect of Personal forborne loans will differ depending on whether the loans are performing or non-performing and which business is managing them due to local market conditions.

Granting forbearance will only change the arrears status of the loan in specific circumstances, which can include capitalisation of principal and interest in arrears, where the loan may be returned to the performing book if the customer has demonstrated an ability to meet regular payments and is likely to continue to do so.

The loan would remain in forbearance for the defined probation period and be subject to performance criteria. These include making regular repayments and being less than 30 days past due.

Additionally for some forbearance types a loan may be transferred to the performing book if a customer makes payments that reduce loan arrears below 90 days (UK PBB collections function).

For ECL provisioning, all forborne but performing exposures are categorised as Stage 2 and are subject to a lifetime loss provisioning assessment.

For non-performing forborne loans, the Stage 3 loss assessment process is the same as for non-forborne loans with the exception of Ulster Bank RoI, where forborne loans which result in an economic loss form a separate risk pool and are subjected to specific provisioning treatments.

Capital and risk management

Credit risk continued

Wholesale

Provisions for forborne loans are assessed in accordance with normal provisioning policies. The customer s financial position and prospects as well as the likely effect of the forbearance, including any concessions granted, and revised PD or LGD gradings are considered in order to establish whether an impairment provision is required.

Wholesale loans granted forbearance are individually assessed in most cases. Performing loans subject to forbearance treatment are categorised as Stage 2 and subject to a lifetime loss assessment.

Forbearance may result in the value of the outstanding debt exceeding the present value of the estimated future cash flows. This difference will lead to a customer being classified as non-performing.

In the case of non-performing forborne loans, an individual loan impairment provision assessment generally takes place prior to forbearance being granted. The amount of the loan impairment provision may change once the terms of the forbearance are known, resulting in an additional provision charge or a release of the provision in the period the forbearance is granted.

The transfer of Wholesale loans from impaired to performing status follows assessment by relationship managers and credit. When no further losses are anticipated and the customer is expected to meet the loan s revised terms, any provision is written-off or released and the balance of the loan returned to performing status. This is not dependent on a specified time period and follows the credit risk manager s assessment.

Impairment, provisioning and write-offs (audited)

In the overall assessment of credit risk, impairment, provisioning and write-offs are used as key indicators of credit quality.

The new IFRS 9 impairment provisions accounting standard was implemented with effect from 1 January 2018. Set out below is further detail regarding the impact of the transition from IAS 39 to IFRS 9 impairment provisioning, how key credit risk management activities link to IFRS 9 impairment provisioning and the key policy and modelling decisions that have been made in implementing IFRS 9 (refer also to Accounting policy 14 and Note 14 on the consolidated accounts).

Transition from IAS 39 to IFRS 9 (audited)

RBS implemented IFRS 9 with effect from 1 January 2018 with no restatement of comparatives other than the Day One impact on implementation reflected in opening equity.

Cash flows and cash losses are unchanged by the change in impairment framework from IAS 39 to IFRS 9. IFRS 9 has changed the basis of loss calculation to expected loss (forward-looking), as opposed to the incurred loss model under IAS 39, which focused only on losses that had already occurred. There are a number of changes as well as judgements involved in measuring ECL. New elements include:

- Move from incurred loss model to expected loss model, including all performing assets having 12-month ECL on origination   £513 million increase in provision partly offset by the IAS 39 latent loss provision of £390 million.

- Determination of significant increase in credit risk   this moves a subset of assets from a 12-month ECL (Stage 1) to lifetime ECL (Stage 2) when credit risk has significantly increased since origination   £356 million increase in provision.

- Change in scope of impaired assets (Stage 3)   £73 million increase in provision primarily reflecting assets that have defaulted but with expectation of full recovery under IAS 39.

- Incorporation of forward-looking information, including multiple economic scenarios (MES). MES are assessed in order to identify non-linearity of losses in the portfolio   £64 million increase in provision.

	Total
Key differences in moving from IAS 39 to IFRS 9 on impairment loss (audited)	£m
31 December 2017 - IAS 39 impairment provision (1)	3,832
Removal of IAS 39 latent provision	(390)
IFRS 9 12 month ECL on Stage 1 and Stage 2	513
Increase in Stage 2 ECL to lifetime (discounted)	356
Stage 3 loss estimation (EAD and LGD)	73
Impact of MES	64
1 January 2018 - IFRS 9 ECL	4,448

Note:

(1) Includes £3,814 million relating to loans, less £10 million on loans that were carried at fair value and £28 million relating to FVOCI and LAR debt securities.

Key points

- Overall provisions   The overall provisioning requirement under IFRS 9 increased by £616 million   a 16% increase relative to IAS 39. The main driver of the increase was the requirement to hold a minimum of 12 months of ECL on performing assets, increasing to lifetime loss for assets that have exhibited a significant increase in credit risk.

- Performing assets   Compared with the latent loss provision held under IAS 39 of £390 million, the ECL requirement on performing assets (Stage 1 and Stage 2) more than doubled, increasing by £479 million to £869 million.

- Non-performing assets   The IFRS 9 provisioning requirement on non-performing assets in Stage 3 was less affected. The ECL requirement of £3.6 billion was £123 million (4%) higher compared with IAS 39 impaired portfolio provisions of £3.4 billion principally on defaulted assets that did not carry a provision, reflecting the expectation of full recovery under IAS 39.

- UK PBB and Ulster Bank RoI combined The exposures in these two segments are primarily Personal. The ECL provisioning requirement was £2.4 billion. The uplift was driven by the higher provisioning requirement on performing assets, principally on the UK credit card portfolio.

- CPB and NatWest Markets The assets are mainly Wholesale. The ECL provisioning requirement was £2.0 billion. The uplift in Stage 3 assets was principally driven by assets defaulted but with expectation of full recovery under IAS 39.

Capital and risk management

Credit risk continued

Key elements of IFRS 9 impairment provisions (audited)

IFRS 9 introduced additional complexity into the determination of credit impairment provisioning requirements. However, the building blocks that deliver an ECL calculation already existed in RBS. Existing Basel models were used as a starting point in the construction of IFRS 9 models, which also incorporate term extension and forward-looking information.

Five key areas may materially influence the measurement of credit impairment under IFRS 9 two of these relate to model build and three relate to their application:

- Model build:
  - The determination of economic indicators that have most influence on credit loss for each portfolio and the severity of impact (this leverages existing stress testing mechanisms).
  - The build of term structures to extend the determination of the risk of loss beyond 12 months that will influence the impact of lifetime loss for assets in Stage 2.
- Model application:
  - The assessment of the significant increase in credit risk and the formation of a framework capable of consistent application.
  - The determination of asset lifetimes that reflect behavioural characteristics while also representing management actions and processes (using historical data and experience).
  - The determination of a base case (or central) economic scenario which has the most material impact (of all forward-looking scenarios) on the measurement of loss (RBS uses consensus forecasts to remove management bias).

Policy elections and simplifications relating to IFRS 9

In addition to the five key areas above, which are relevant from period to period, there was one further significant judgment that was made as a one-off exercise to support the Day One implementation: this was the application of the new IFRS 9 models to the determination of origination date metrics. Since it is not possible to determine the economic forecasts and alternative scenarios going backwards in time it is necessary to use a series of assumptions to enable this process. RBS assumed a flat economic forecast, for all dates historically. There were some other less significant judgments, elections and simplification assumptions that informed the ECL process; these were not seen as critical in determining the appropriate level of impairment but represented choices taken by management across areas of estimation uncertainty. The main examples of these are:

- Models for example in the case of some low default portfolios, Basel parameter estimates have been applied for IFRS 9.

- Non-modelled portfolios certain portfolios have their Basel II capital requirement calculated under the standardised framework for regulatory purposes and do not have systematically modelled PDs, EADs and LGDs. Under IFRS 9, they have bespoke treatments for the identification of significant increase in credit risk and ECL provisions. With respect to the latter, benchmark PDs, EADs and LGDs are used with the benchmarks being reviewed annually for appropriateness. The main non-modelled portfolios are Private Banking, RBSI personal and Lombard.

- Discounting of future losses the ECL calculation is based on expected future cash-flows. These are discounted using the effective interest rate for practical purposes, this is typically applied at a portfolio level rather than being established and operated at an individual asset level.

- Multiple economic scenarios (MES) it is the selection of the central (or base) scenario that is most critical to the ECL calculation, independent of the method used to generate a range of alternative outcomes and their probabilities. Different approaches to model MES around the central scenario have all been found of low significance for the overall ECL impact.

Economic loss drivers

Introduction (audited)

The portfolio segmentation and selection of economic loss drivers for IFRS 9 follow closely the approach already used in stress testing. To enable robust modelling the forecasting models for each portfolio segment (defined by asset class and where relevant industry sector and region) are based on a selected, small number of economic factors, (typically two to four) that best explain the temporal variations in portfolio loss rates. The process to select economic loss drivers involves empirical analysis and expert judgment.

The most material primary economic loss drivers for Personal portfolios include national GDP, unemployment rate, House Price Index, and base rate for UK and Irish portfolios as relevant. In addition to some of these loss drivers, for Wholesale portfolios, world GDP is a primary loss driver.

Central base case economic scenario (audited)

The internal base case scenario is the primary forward-looking economic information driving the calculation of ECL The same base case scenario is used for RBS s financial planning. The key elements of the current economic base case, which includes forecasts over a five year forecast horizon, are summarised as follows:

- United Kingdom The central scenario projects modest growth in the UK economy, in line with the consensus outlook. Brexit related uncertainty results in subdued confidence in the near term, placing it in the lower quartile of advanced economies. Business investment is weak at the start of the forecast, improving only gradually. Consumer spending rises steadily as households benefit from falling inflation and rising wage growth, though it is a modest upturn. The central scenario assumes slower job growth than seen in recent years, meaning unemployment edges up from its current historic lows. House price growth slows, extending the current slowdown, before picking up to low single digit growth in later years. Monetary policy follows the market implied path for Bank of England base rate at the time the scenarios were set, therefore it is assumed only two further base rate increases over the next five years.

- Republic of Ireland The economy is expected to continue on its positive trajectory with growth expected to revert closer to long run averages in the medium term. Job growth is expected to moderate with the unemployment remaining around 5%. Meanwhile house price growth continues to moderate to a low single-digit pace. As always, a small open economy such as RoI remains very sensitive to the global economic environment and expectations can change at short notice.

Use of the central base case in Personal

In Personal the internal base case is directly used as the central scenario for the ECL calculations by feeding the forecasted economic loss drivers into the respective PD and LGD models

Use of the central base case in Wholesale

As in Personal the primary input is the central base case scenario but a further adjustment is applied to explicitly enforce a gradual reversion to long run average credit cycle conditions from the first projected year onwards.

This adjustment process leverages the existing Wholesale credit models framework that utilises Credit Cycle Indices (CCI) to measure the point-in-time default rate conditions in a comprehensive set of region/industry groupings. The CCI are constructed by summarising market data based point-in-time PDs for all publicly listed entities in the respective region/industry grouping on a monthly frequency. Positive CCI values indicate better than average conditions, i.e. low default rates and a CCI value of zero indicates default rate conditions at long run average levels. The CCI can be interpreted as an aggregation of the primary economic loss drivers most relevant for each portfolio segment into a single measure. The central base case scenario forecasts provided at the level of economic loss drivers are fed into the ECL calculations by first translating them into corresponding CCI forecasts for each portfolio segment and subsequently applying the aforementioned mean-reversion adjustment.

Capital and risk management

Credit risk continued

Initially at transition, mean reversion was applied from year five onwards. Since H1 2018, mean reversion is applied from the first year onwards. The earlier application of the mean reversion adjustment was introduced to account for two empirical observations. Firstly historic credit loss rates in Wholesale portfolios show pronounced mean reversion behaviour and secondly, the accuracy of economic forecasts tends to drop significantly for horizons beyond one or two years.

Approach for MES (audited)

The response of portfolio loss rates to changes in economic conditions is typically non-linear and asymmetric. Therefore in order to appropriately take account of the uncertainty in economic forecasts a range of MES are considered when calculating ECL.

- Personal the approach to MES is based on using a set of discrete scenarios. In addition to the central base case a further four bespoke scenarios are taken into account a base case upside and downside and an additional upside and downside. The overall MES ECL is calculated as a probability weighted average across all five scenarios. (Refer to the Probability weightings of scenarios section below).

The ECL impact on the Personal portfolio arising from the application of MES over the single, central base case is relatively low, and following review by the Provisions Committee, overlays were agreed to ensure the expected effect of non-linearity of losses was appropriately recognised. As at 31 December 2018, the value of the overlays was £26 million for UK PB and £26 million for Ulster Bank RoI.

- Wholesale the approach to MES is a Monte Carlo method that involves simulating a large number of alternative scenarios around the central scenario (adjusted for mean reversion) and averaging the losses and PD values for each individual scenario into unbiased expectations of losses (ECL) and PD.

The simulation of alternative scenarios does not occur on the level of the individual economic loss drivers but operates on the aggregate CCI described earlier. Since the existing Wholesale credit models for PD and LGD were already built within the CCI framework the chosen Monte Carlo method provided a conceptually rigorous but still efficient approach to implement the MES requirement.

The Monte Carlo MES approach increases Wholesale ECL for Stage 1 and Stage 2 by approximately 5% above the single, central scenario outcomes. No additional MES overlay was applied for Wholesale.

For both Personal and Wholesale, the impact from MES is factored in to account level PDs through scalars. These MES-adjusted PDs are used to assess whether a significant increase in credit risk has occurred.

Key economic loss drivers average over the five year planning horizon (2019 to 2023 for 31 December 2018 and 2018 to 2022 for 1 January 2018) in the most relevant planning cycle for the central base case and two upside and downside scenarios used for ECL modelling are set out below.

Economic parameters

	31 December 2018					1 January 2018				
	Upside 2	Upside 1	Base case	Downside 1	Downside 2	Upside 2	Upside 1	Base case	Downside 1	Downside 2
UK	%	%	%	%	%	%	%	%	%	%
GDP - change	2.6	2.3	1.7	1.5	1.1	2.2	1.9	1.7	1.5	1.3
Unemployment	3.3	3.8	5.0	5.6	6.9	5.0	5.2	5.3	5.4	5.5
House Price Inflation - change	4.3	3.3	1.7	1.1	(0.5)	4.2	3.4	3.1	2.9	2.7
Bank of England base rate	1.7	1.3	1.1	0.5		1.7	1.2	0.8	0.4	0.2
Republic of Ireland										
GDP - change	4.3	3.6	3.0	3.1	2.8	3.6	3.2	2.9	2.6	2.3
Unemployment	4.2	4.6	5.2	6.0	6.8	5.0	5.4	5.7	5.9	6.1
House Price Inflation - change	9.2	6.8	4.0	3.2	0.8	6.7	5.4	4.4	3.7	3.0
European Central Bank base rate	1.3	0.8	0.3			0.6	0.4	0.1	0.1	
World GDP - change	3.6	3.2	2.7	2.5	2.3	2.9	2.7	2.6	2.5	2.4
Probability weight	12.8	17.0	30.0	25.6	14.6	5.0	15.0	60.0	15.0	5.0

Probability weightings of scenarios (audited)

RBS s approach to IFRS 9 MES in Personal involves selecting a suitable set of discrete scenarios to characterise the distribution of risks in the economic outlook and assigning appropriate probability weights to those scenarios. This has the following basic steps:

- Scenario selection for 2018 two upside and two downside scenarios from Moody s inventory of scenarios were chosen. The aim is to obtain downside scenarios that are not as severe as stress tests, so typically have a severity of around one in ten and one in five of approximate likelihood, along with corresponding upsides.

- Severity assessment having selected the most appropriate scenarios their severity is then assessed based on the behaviour of UK GDP by calculating a variety of measures such as average GDP growth deviation from base and peak to trough falls in GDP. These measures are compared against a set of 1,000 model runs and it is established what percentile in the distribution most closely corresponds with each scenario.

- Probability assignment having established the relevant percentile points, probability weights are assigned to ensure that the scenarios produce an unbiased result. If the severity assessment step shows the scenarios to be broadly symmetric, then this will result in a symmetric probability weighting (same probability weight above and below the base case, as was used in the first half of 2018). However if the downsides are not as extreme as the upsides, then more probability weight is allocated to the downsides to ensure the unbiasedness requirement is satisfied (as was the case in the second half of 2018). This adjustment is made purely to restore unbiasedness, not to address any relative skew in the distribution of risks in the economic outlook, which is dealt with through overlays and covered in the section on UK economic uncertainty.

Capital and risk management

Credit risk continued

UK economic uncertainty (audited)

RBS s 2018 results were prepared during the run up to the UK leaving the European Union, a period of elevated uncertainty over the UK economic outlook. RBS s approach to capturing that elevated uncertainty is to apply an overlay to ECL. Information is used from the earnings volatility scenario that is part of the 2018 planning process and credit risk appetite setting. Key elements include an alternative path the economy could take, being characterised as more severe than the Bank of England s Disruptive Brexit scenario (ACS) but less severe than the Disorderly Brexit scenario and then applying management judgement as to its likelihood. The RBS-wide overlay of £101 million booked in the third quarter of 2018 remained in place at the year end.

IFRS 9 credit risk modelling (audited)

IFRS 9 introduced lifetime ECL for the measurement of credit impairment. This required the development of new models or the enhancement of existing Basel models. IFRS 9 ECLs are calculated using a combination of:

- Probability of default.
- Loss given default.
- Exposure at default.

In addition, lifetime PDs (as at reporting date and at date of initial recognition) are used in the assessment of a significant increase in credit risk (SICR) criteria.

IFRS 9 ECL model design principles

To meet IFRS 9 requirements for ECL estimation, PD, LGD and EAD used in the calculations must be:

- Unbiased material regulatory conservatism has been removed to produce unbiased model estimates.
- Point-in-time recognise current economic conditions.
- Forward-looking incorporated into PD estimates and, where appropriate, EAD and LGD estimates.
- For the life of the loan all models produce a term structure to allow a lifetime calculation for assets in Stage 2 and Stage 3.

IFRS 9 requires that at each reporting date, an entity shall assess whether the credit risk on an account has increased significantly since initial recognition. Part of this assessment requires a comparison to be made between the current lifetime PD (i.e. the current probability of default over the remaining lifetime) with the equivalent lifetime PD as determined at the date of initial recognition.

For assets originated before IFRS 9 was introduced, comparable lifetime origination PDs did not exist. These have been retrospectively created using the relevant model inputs applicable at initial recognition. Due to data availability, two practical measures have been taken:

- Where model inputs were not available at the point of initial recognition the earliest available robust metrics were used. For instance, since Basel II was introduced in 2008, the earliest available and reliable production Basel PDs range from between December 2007 and April 2008 depending on the portfolio.

- Economic conditions at the date of initial recognition have been assumed to remain constant from that point forward.

PD estimates

Personal models

Personal PD models use an Exogenous, Maturity and Vintage (EMV) approach to model default rates by taking into account EMV effects. The EMV approach separates portfolio default risk trends into three components: vintage effects (quality of new business over time), maturity effects (changes in risk relating to time on book) and exogenous effects (changes in risk relating to changes in macro economic conditions). This EMV methodology has been widely adopted across the industry because it enables forward-looking information to be modelled separately by isolating exogenous or macroeconomic effects. Forward-looking information is incorporated by fitting an appropriate macroeconomic model, such as the relevant stress testing model to the exogenous component and utilising forecasts of the relevant macro-economic factors.

Wholesale models

Wholesale PD models use the existing CCI based point-in-time/through-the-cycle framework to convert one-year regulatory PDs into point-in-time estimates that reflect current economic conditions across a comprehensive set of region/industry segments.

One year point-in-time PDs are then extrapolated to multi-year PDs using a conditional transition matrix approach. The conditional transition matrix approach allows the incorporation of forward-looking information, provided in the form of yearly CCI projections, by adjusting the credit state transition probabilities according to projected, forward-looking changes of credit conditions in each region/industry segment.

This results in forward-looking point-in-time PD term structures for each obligor from which the lifetime PD for a specific exposure can be calculated according to the exposure s residual contractual maturity.

LGD estimates

The general approach for the IFRS 9 LGD models was to leverage the Basel LGD models with bespoke IFRS 9 adjustments to ensure unbiased estimates, that is, the use of effective interest rate as the discount rate and the removal of downturn calibration, indirect costs, other conservatism and regulatory floors.

Personal

Forward-looking information has only been incorporated for the secured portfolios, where changes in property prices can be readily accommodated. Analysis has indicated minimal impact for the other Personal portfolios. For UBIDAC, a bespoke IFRS 9 LGD model is used, reflecting its specific regional market.

Wholesale

Current and forward-looking economic information is incorporated into the LGD estimates using the existing CCI framework. For low default portfolios (for example, sovereigns) loss data is too scarce to substantiate estimates that vary with systematic conditions. Consequently, for these portfolios, LGD estimates are assumed to be constant throughout the projection horizon.

EAD estimates

Retail

The IFRS 9 Personal modelling approach for EAD is dependent on product type.

- Revolving products use the existing Basel models as a basis, with appropriate adjustments incorporating a term structure based on time to default.
- Amortising products use an amortising schedule, where a formula is used to calculate the expected balance based on remaining terms and interest rates.
- There is no EAD model for Personal loans. Instead, debt flow (i.e. combined PD x EAD) is directly modelled.

Analysis has indicated that there is minimal impact on EAD arising from changes in the economy for all Retail portfolios except mortgages. Therefore, forward-looking information is only incorporated in the mortgage EAD model (through forecast changes in interest rates).

Wholesale

For Wholesale, EAD values are estimated on the basis of credit conversion factor (CCF) models. RBS have observed historic, realised CCF values to vary over time but there is no clear relationship between the temporal changes in CCF and economic conditions. RBS attribute changes in CCFs to changes in exposure management practices.

Therefore RBS does not include forward-looking economic information into projected CCF/EAD. To ensure CCF values reflect most recent exposure management practices, RBS update CCF coefficients in the model frequently (typically annually) using the last five years of observed data.

Capital and risk management

Credit risk continued

Governance and post model adjustments

The IFRS 9 PD, EAD and LGD models are subject to RBS s model monitoring and governance frameworks, which include approving post model adjustments (PMAs) calculated to incorporate the most recent data available and made on a temporary basis ahead of the underlying model parameter changes being implemented. These PMAs totalled approximately £60 million at the year end primarily in respect of PD under-predictions. In addition, as at 31 December 2018, judgemental ECL overlays on the UK PB mortgage portfolio totalled £30 million, including £15 million in respect of the repayment risk not captured in the models that a proportion of customers on interest only mortgages will not be able to repay the capital element of their loan at end of term. The overlay for interest only mortgages was based on an analysis of recent experience on customer repayments pre and post end of term, and modelling that forward for maturities over the next ten years. These adjustments were over and above those covering economic uncertainty and non-linearity of losses discussed above and are also subject to over-sight and governance by the Provisions Committee.

Significant increase in credit risk (audited)

Exposures that are considered significantly credit deteriorated since initial recognition are classified in Stage 2 and assessed for lifetime ECL measurement (exposures not considered deteriorated carry a 12 month ECL). RBS has adopted a framework to identify deterioration based primarily on movements in probability of default supported by additional backstops. The principles applied are consistent across RBS and align to credit risk management practices.

The framework comprises the following elements:

- IFRS 9 lifetime PD assessment (the primary driver) on modelled portfolios the assessment is based on the relative deterioration in forward-looking lifetime PD and is assessed monthly. To assess whether credit deterioration has occurred, the residual lifetime PD at balance sheet date (which PD is established at date of initial recognition (DOIR)) is compared to the current PD. If the current lifetime PD exceeds the residual origination PD by more than a threshold amount deterioration is assumed to have occurred and the exposure transferred to Stage 2 for a lifetime loss assessment. For Wholesale, a doubling of PD would indicate a significant increase in credit risk subject to a minimum PD uplift of 0.1%. For Personal portfolios, the criteria varies by risk band, with lower risk exposures needing to deteriorate more than higher risk exposures, as outlined in the following table:

Personal risk bands	Risk bandings (based on residual lifetime PD calculated at DOIR)	PD deterioration threshold criteria
Risk band A	<0.762%	PD@DOIR + 1%
Risk band B	<4.306%	PD@DOIR + 3%
Risk band C	>=4.306%	1.7 x PD@DOIR

- Qualitative high-risk backstops the PD assessment is complemented with the use of qualitative high-risk backstops to further inform whether significant deterioration in lifetime risk of default has occurred. The qualitative high-risk backstop assessment includes the use of the mandatory 30+ days past due backstop, as prescribed by IFRS 9 guidance, and other features such as forbearance support, Wholesale exposures managed within the Risk of Credit Loss framework, and for Personal, adverse credit bureau results.

- Persistence (Personal and Business Banking only) the persistence rule ensures that accounts which have met the criteria for PD driven deterioration are still considered to be significantly deteriorated for three months thereafter. This additional rule enhances the timeliness of capture in Stage 2. It is a Personal methodology feature and is applied to PD driven deterioration only.

The criteria are based on a significant amount of empirical analysis and seek to meet three key objectives:

- Criteria effectiveness the criteria should be effective in identifying significant credit deterioration and prospective default population.

- Stage 2 stability the criteria should not introduce unnecessary volatility in the Stage 2 population.

- Portfolio analysis the criteria should produce results which are intuitive when reported as part of the wider credit portfolio.

Asset lifetimes (audited)

The choice of initial recognition and asset duration is another critical judgement in determining the quantum of lifetime losses that apply.

- The date of initial recognition reflects the date that a transaction (or account) was first recognised on the balance sheet; the PD recorded at that time provides the baseline used for subsequent determination of SICR.

- For asset duration, the approach applied (in line with IFRS 9 requirements) is:

  - Term lending the contractual maturity date, reduced for behavioural trends where appropriate (such as, expected pre-payment and amortisation).

  - Revolving facilities for Personal portfolios (except credit cards), asset duration is based on behavioural life and this is normally greater than contractual life (which would typically be overnight). For Wholesale portfolios, asset duration is based on annual counterparty review schedules and will be set to the next review date.

In the case of credit cards, the most significant judgement is to reflect the operational practice of card reissuance and the associated credit assessment as enabling a formal re-origination trigger. As a consequence a capped lifetime approach of up to 36 months is used on credit card balances. If the approach was uncapped the ECL impact is estimated at less than £90 million, compared to £75 million at transition, with the increase primarily reflecting refinements to criteria used to identify a significant increase in credit risk during the year.

The approach reflects RBS practice of a credit-based review of customers prior to credit card issuance and complies with IFRS 9. Benchmarking information indicates that peer UK banks use behavioural approaches in the main for credit card portfolios with average durations between three and ten years. Across Europe durations are shorter and are, in some cases, as low as one year.

Measurement uncertainty and ECL sensitivity analysis (audited)

The recognition and measurement of ECL is highly complex and involves the use of significant judgement and estimation. This includes the formulation and incorporation of multiple forward-looking economic conditions into ECL to meet the measurement objective of IFRS 9. The ECL provision is sensitive to the model inputs and economic assumptions underlying the estimate. Set out below is the impact of some of the material sensitivities considered for 2018 year end reporting. These ECL simulations are separate to the impact arising from MES as described earlier in this disclosure, which impacts are embedded in the reported ECL. Given the current benign environment for impairments the focus is on downsides to the existing ECL provision levels.

The focus of the simulations is on ECL provisioning requirements on performing exposures in Stage 1 and Stage 2. The simulations are run on a stand-alone basis and are independent of each other; the potential ECL uplifts reflect the simulated impact as at the year end balance sheet date.

As default is an observed event as at the balance sheet date, Stage 3 provisions are not subject to the same level of measurement uncertainty, and therefore have not been considered in this analysis. The following common scenarios have been applied across the key Personal and Wholesale portfolios:

Capital and risk management

Credit risk continued

- Economic uncertainty simulating the impact arising from the Downside 2 scenario, which is one of the five discrete scenarios used in the methodology for Personal MES. In the simulation RBS have assumed that the economic macro variables associated with the Downside 2 scenario replace the existing base case economic assumptions, giving them a 100% probability weighting for Personal and using the Monte Carlo approach in Wholesale to simulate the impact of MES around the base case economic scenario.

- As reflected in the economic metrics in the following table, the Downside 2 scenario assumes a significant economic downturn in the UK in 2019 running in to 2020 with recovery in the later years. UK GDP turns negative in 2019 compared to the base case assumption of continued growth, unemployment increases and peaks at the end of 2020. House prices fall in both 2019 and 2020 before starting to recover, and interest rates are assumed to be lower for longer. An economic slowdown is also assumed in the Republic of Ireland in 2019 and 2020.

	Base case economic parameters					Downside 2 economic parameters				
	2019 Q4	2020 Q4	2021 Q4	2022 Q4	2023 Q4	2019 Q4	2020 Q4	2021 Q4	2022 Q4	2023 Q4
UK	%	%	%	%	%	%	%	%	%	%
GDP (year-on-year)	1.7	1.5	1.9	1.8	1.8	(1.2)	1.2	2.7	2.0	2.1
Unemployment rate	4.8	5.0	5.1	5.1	5.1	6.7	7.4	7.3	6.9	6.4
House Price Inflation (year-on-year)	1.1	0.7	1.5	2.3	3.4	(7.0)	(4.5)	1.0	4.1	6.3
Bank of England rate	1.0	1.0	1.3	1.3	1.3					
Republic of Ireland										
GDP (year-on-year)	4.2	2.9	2.8	2.8	2.5	0.7	3.5	4.4	4.5	4.0
Unemployment rate	5.2	5.1	5.1	5.2	5.3	7.6	7.7	6.5	5.9	5.7
House Price Inflation (year-on-year)	5.8	2.7	3.0	3.4	3.5	(6.7)	(5.4)	2.2	7.2	8.8
European Central Bank rate			0.3	0.5	0.8					
World GDP (year-on-year)	2.7	2.4	2.9	2.7	2.5	(0.8)	3.1	4.4	3.2	2.8

This scenario has been applied to all modelled portfolios in the analysis below, with the simulation impacting both PDs and LGDs. For some portfolios this creates a significant impact on ECL, for others less so but on balance the impact is deemed reasonable. In this simulation, it is assumed the existing modelled relationship between key economic variables and loss drivers holds good.

- Portfolio risk evaluation of the impact of a movement in one of the key metrics, PD, simulating a relative 25% upward shift in PDs.

These common scenarios were complemented with two specific portfolio simulations:

- Wholesale portfolios simulating the impact of PDs moving upwards to the through-the-cycle (TTC) average from their current point-in-time (PIT) estimate. This simulation looks solely at PD movements, potential movements in LGD rates have not been considered. With the current benign economic conditions wholesale IFRS 9 PIT PDs are significantly lower than TTC PD. This scenario shows the increase to ECL by immediately switching to TTC PDs providing an indication of long run average expectations. IFRS 9 PDs have been used so there remains some differences to Basel TTC PDs where conservative assumptions are required, such as caps or floors, not permitted under the IFRS 9 best estimate approach.

- Mortgages House Price Inflation (HPI) is a key economic driver and RBS have simulated a univariate scenario of a 5% decrease in HPI across the main mortgage portfolios. A univariate analysis using only HPI does not allow for the interdependence across the other key primary loss drivers to be reflected in any ECL estimate. The simulated impact is based on 100% probability weighting to demonstrate the sensitivity of HPI on the central base case. The Downside 2 scenario above has house prices falling by a more material amount, and also includes the impact of PD increases which are not captured under the HPI univariate simulation.

RBS s core criterion to identify a significant increase in credit risk is founded on PD deterioration, as discussed above. Under the simulations, PDs increase and result in exposures moving from Stage 1 to Stage 2 contributing to the ECL uplift.

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Capital and risk management

Credit risk continued

Economic sensitivity analysis (restated: see Note 4 for details)

	Actual position at 31 December 2018 Stage 1 and Stage 2 (1)			Common scenarios (3) Downside 2			Common scenarios (3) 25% PD increase			Discrete scenarios (3)		
	Exposure	of which in Stage 2	ECL provision(2)	Potential ECL uplift		Exposure in Stage 2	Potential ECL uplift		Exposure in Stage 2	HPI (4)/TTC PD (5) potential ECL uplift		Exposure in Stage 2
	£bn	%	£m	£m	%	%	£m	%	%	£m	%	%
UK PB	148.6	9.0	528.4	171.0	32.4	11.4	156.2	29.6	10.3			
Of which: mortgages	*137.7*	*7.3*	*80.9*							*5.5*	*6.8*	*7.3*
Ulster Bank RoI Personal and business banking	12.8	11.9	100.0	60.5	60.5	24.5	24.4	24.4	17.3			
Of which: mortgages	*12.2*	*11.4*	*85.5*							*6.1*	*7.2*	*11.7*
Wholesale	268.8	4.3	394.4	94.6	24.0	8.2	104.4	26.5	5.5	106.3	31.9	7.5
Total	430.2	6.1	1,022.8	326.1	31.9	9.8	285.0	27.9	7.5			

Notes:

(1) Reflects drawn exposure and ECL for all modelled exposure in scope for IFRS 9; in addition to loans this includes bonds, and cash. For Personal exposures, this includes UK PB, and also Ulster Bank RoI personal and business banking, the analysis excludes Personal exposures such as Private Banking and RBSI.

(2) The ECL provision includes the ECL overlay taken in quarter 3 to recognise the elevated economic uncertainty in the UK in the period running up to the UK leaving the European Union.

(3) All simulations are run on a stand-alone basis and are independent of each other, with the potential ECL uplift reflecting the simulated impact at the year end balance sheet date.

(4) HPI is applied to the most material mortgage portfolios only, UK PB and Ulster Bank RoI.

(5) TTC or long-run average PDs are applied to Wholesale portfolios only, excluding business banking exposures.

Key points

- In the downside 2 scenario, the ECL requirement overall was simulated to increase by £326 million on stage 1 and 2 exposures from the current level of £1,023 million. The simulation estimates the balance sheet ECL requirement as at 31 December 2018 and assumes that the economic variables associated with the Downside 2 scenario had been RBS s base case economic assumption at that time.

- For the UK PB franchise, the simulated ECL uplift observed in the Downside 2 scenario was a little higher than under the 25% PD increase, with similar seen in the percentage of exposures simulated to move to Stage 2.

- In the Downside 2 scenario, the Ulster Bank RoI simulated uplift was more marked than on the other simulations reflecting the weight of mortgage assets in their personal lending portfolio, with the adverse movement in house prices increasing the LGD. A similar affect was observed on the UK PB mortgage portfolio where the mortgage ECL was simulated to increase by just over 50%, and which impact is included within the overall PB simulated result. The percentage of exposures simulated to move into Stage 2 in the Downside 2 scenario is notably higher than under the 25% PD increase for the Ulster Bank RoI due to the combined impact of the macro-economic variables utilised for the simulation.

- On the univariate HPI scenario, the impact of a 5% fall in house prices was relatively modest, the simulated impact was similar in both UK PB and Ulster Bank RoI. The relationship between the required ECL and house price movements is expected to be non-linear should the level of house prices reduce by more material amounts, with the rate of loss accelerating when prices fall by more than 10%. Ulster Bank RoI also observed a modest increase in the percentage of exposures in Stage 2 reflecting small PD movements, whereas the UK PB simulation was restricted to the LGD effect alone hence the percentage of assets in Stage 2 remained unchanged.

- Wholesale, the TTC PD scenario has the most significant impact on ECL highlighting that reverting to long run average PDs is more severe than a 25% increase in PDs or a switch to a downside scenario. Moving to TTC PDs requires an average PD uplift of almost 40%.

- The TTC PD and 25% PD increase scenarios see a significant ECL uplift in the property portfolio which is not observed under the Downside 2 scenario as under the Downside 2 scenario the Wholesale PDs begin to revert to long run averages (mean reversion) after 12 months so do not fully capture the further deterioration expected in the property portfolio in years 2 and 3.

- Downside 2 scenario results in more corporate exposure moving to Stage 2 than either the TTC PD or 25% PD increase scenarios. The impact is more concentrated on shorter dated exposure, reflecting the year 1 downturn, which has less of an impact on total ECL.

Capital and risk management

Credit risk Banking activities

All the disclosures in this section are audited with the exception of Stage 2 analysis and Stage 3 vintage analysis.

Introduction

This section covers the credit risk profile of RBS s banking activities. Exposures and credit risk measures presented as of and for year ended 31 December 2018 and at 1 January 2018 are on an IFRS 9 basis. Exposures and credit risk measures as of and for the year ended 31 December 2017 are on an IAS 39 basis.

Refer to Accounting policy 14 and Note 14 on the consolidated accounts for revisions to policies and critical judgements relating to impairment loss determination.

Banking activities include a small number of portfolios that were carried at fair value, the most significant of which was the lender-option/buyer-option portfolio of £0.5 billion (1 January 2018 £2.0 billion). The decrease in the portfolio reflected disposals and valuation changes.

Financial instruments within the scope of the IFRS 9 ECL framework (audited)

Refer to Note 11 on the consolidated accounts for balance sheet analysis of financial assets that are classified as amortised cost (AC) or fair value through other comprehensive income (FVOCI), the starting point for IFRS 9 ECL framework assessment.

Financial assets

Of the total third party £471 billion AC and FVOCI balance (gross of ECL), £463.9 billion or 98% was within the scope of the IFRS 9 ECL framework and comprised by stage: Stage 1 £430.1 billion; Stage 2 £26.1 billion and Stage 3 £7.7 billion (1 January 2018 £468.8 billion of which Stage 1 £430.5 billion; Stage 2 £27.0 billion and Stage 3 £11.3 billion). Total assets within IFRS 9 ECL scope comprised the following by balance sheet caption and stage:

- Loans: £319.8 billion of which Stage 1 £286.0 billion; Stage 2 £26.1 billion and Stage 3 £7.7 billion (1 January 2018 £321.3 billion of which Stage 1 £283.3 billion; Stage 2 £26.8 billion and Stage 3 £11.2 billion).
- Other financial assets: £144.1 billion of which Stage 1 £144.1 billion; Stage 2 nil and Stage 3 nil (1 January 2018 £147.4 billion of which Stage 1 £147.2 billion; Stage 2 £0.2 billion and Stage 3 nil).

Those assets outside the IFRS 9 ECL framework were as follows:

- Settlement balances, items in the course of collection, cash balances and other non-credit risk assets of £4.9 billion. These were assessed as having no ECL unless there was evidence that they were credit impaired.

- Equity shares of £0.5 billion as not within the IFRS 9 ECL framework by definition.

- Fair value adjustments on loans hedged by interest rate swaps, where the underlying loan was within the IFRS 9 ECL scope £0.9 billion.

- Group-originated securitisations, where ECL was captured on the underlying loans of £0.4 billion.

- Commercial cards which operate in a similar manner to charge cards, with balances repaid monthly via mandated direct debit with the underlying risk of loss captured within the customer s linked current account of £0.4 billion.

Contingent liabilities and commitments

In addition to contingent liabilities and commitments disclosed in Note 27 on the consolidated accounts reputationally-committed limits, are also included in the scope of the IFRS 9 ECL framework. These are offset by £3.6 billion out of scope balances primarily related to facilities that, if drawn, would not be classified as AC or FVOCI, or undrawn limits relating to financial assets exclusions. Total contingent liabilities (including financial guarantees) and commitments within IFRS 9 ECL scope of £168.9 billion comprised Stage 1 £161.4 billion; Stage 2 £6.9 billion and Stage 3 £0.6 billion.

Capital and risk management

Credit risk **Banking activities** continued

Portfolio summary **segment analysis** (audited) (restated: see Note 4 for details)

The table below summarises gross loans and ECL, by segment and stage, within the scope of the IFRS 9 ECL framework.

31 December 2018 (1)	UK PB £m	Ulster Bank RoI £m	Commercial Banking £m	Private Banking £m	RBSI £m	NWM £m	Central items & other £m	Total £m
Loans - amortised cost								
Stage 1	134,836	17,822	91,034	13,750	13,383	8,196	6,964	285,985
Stage 2	13,245	2,080	9,518	531	289	407	27	26,097
Stage 3	1,908	2,308	2,448	225	101	728		7,718
	149,989	22,210	103,000	14,506	13,773	9,331	6,991	319,800
ECL provisions (2)								
Stage 1	101	35	124	13	6	6		285
Stage 2	430	114	194	10	3	12		763
Stage 3	597	638	942	20	17	106		2,320
	1,128	787	1,260	43	26	124		3,368
ECL provisions coverage (3)								
Stage 1 (%)	0.07	0.20	0.14	0.09	0.04	0.07		0.10
Stage 2 (%)	3.25	5.48	2.04	1.88	1.04	2.95		2.92
Stage 3 (%)	31.29	27.64	38.48	8.89	16.83	14.56		30.06
	0.75	3.54	1.22	0.30	0.19	1.33		1.05
Impairment losses								
ECL charge (4)	339	15	147	(6)	(2)	(92)	(3)	398
ECL loss rate - annualised (basis points)	22.60	6.75	14.27	(4.14)	(1.45)	(98.60)	(4.29)	12.45
Amounts written-off	445	372	572	7	9	89		1,494

1 January 2018 (1)	UK PB £m	Ulster Bank RoI £m	Commercial Banking £m	Private Banking £m	RBSI £m	NWM £m	Central items & other £m	Total £m	Balances at central banks £m	Total £m
Financial assets										
Stage 1	132,418	19,055	97,625	12,755	7,791	11,762	52,523	333,929	96,566	430,495
Stage 2	13,204	2,347	9,776	333	307	995	10	26,972	5	26,977
Stage 3	2,406	3,669	4,264	324	119	501		11,283		11,283
	148,028	25,071	111,665	13,412	8,217	13,258	52,533	372,184	96,571	468,755
ECL provisions (2)										
Stage 1	110	29	92	18	5	2	5	261	1	262
Stage 2	315	106	143	9	5	42	1	621		621
Stage 3	825	1,054	1,441	27	28	190		3,565		3,565
	1,250	1,189	1,676	54	38	234	6	4,447	1	4,448
ECL provisions coverage (3)										

Stage 1 (%)	0.1	0.1	0.1	0.1	0.1			0.1	0.1
Stage 2 (%)	2.4	4.5	1.5	2.7	1.6	4.2	10.0	2.3	2.3
Stage 3 (%)	34.3	28.7	33.8	8.3	23.5	37.9		31.6	31.6
	0.8	4.7	1.5	0.4	0.5	1.8		1.2	0.9

Notes:

(1) The segment analysis tables as at 31 December 2018 include all loans amortised cost within the scope of IFRS 9. The comparative tables at 1 January 2018 include all financial assets within the scope of IFRS 9, including debt securities of £50.4 billion, of which £42.7 billion related to debt securities classified as FVOCI. ECL on these debt securities at 1 January 2018 was £28 million, of which £4 million related to those classified as FVOCI.

(2) ECL provisions are provisions on loan assets only. Other ECL provisions not included, relate to cash, debt securities and contingent liabilities, and amount to £28 million, of which £5 million was FVOCI.

(3) ECL provisions coverage is ECL provisions divided by loans amortised cost.

(4) ECL charge balances in the above table include a £3 million charge related to other financial assets, of which a £1 million charge related to assets at FVOCI; and a £31 million release related to contingent liabilities.

The table below shows gross loans (excluding reverse repos) and related credit metrics by segment on an IAS 39 basis.

2017	UK PB £m	Ulster Bank RoI £m	Commercial Banking £m	Private Banking £m	RBSI £m	NWM £m	Central items & other £m	Total £m
Gross loans to banks	500	2,447	697	109	29	7,490	4,992	16,264
Gross loans to customers	147,837	20,623	113,302	13,514	8,743	22,902	77	321,633
Risk elements in lending (REIL)	1,543	3,282	3,628	95	103	253		8,904
Provisions	986	1,131	1,456	32	35	174		3,814
REIL as a % of gross loans to customers	1.0	15.9	3.2	0.7	1.2	1.1		2.7
Provisions as a % of REIL	64	34	40	34	34	69		43
Provisions as a % of gross loans to customers	0.7	5.5	1.3	0.2	0.4	0.8		1.2
Impairment losses/(releases)	207	60	390	6	3	(137)	1	530
Amounts written-off	424	124	483	4	6	167	2	1,210

Capital and risk management

Credit risk Banking activities continued

Portfolio summary segment analysis (audited)

Key points

- Total ECL provisions have reduced since transition as a result of reduced provisioning requirements on Stage 3 impaired assets, which reflected ongoing write-offs and debt sales, partially offset by increases in Stage 1 and Stage 2.

- Stage 3 ECL provisions The reductions in the UK PB business reflected a combination of business-as-usual write-offs and debt sale activity. For Ulster Bank RoI the significant reduction since transition was due to the sale of legacy impaired mortgage portfolio debt. In Commercial Banking and NatWest Markets the reductions were mainly attributable to write-offs.

- Stage 1 and Stage 2 The increase in Stage 1 and Stage 2 ECL was driven by a number of factors. These included an ECL uplift for economic uncertainty, which affected all businesses, model refinements, asset migrations from Stage 3 impaired and portfolio growth.

- Provision coverage remained stable in the Stage 1 population and increased in Stage 2, with the uplift including the effect of methodology refinements. The Stage 3 provision coverage reduced slightly including the effect of debt sales and underlying business as usual movements.

- The impairment charge for the year was £398 million. This reflected the relatively stable external environment.

- The reduction in the Commercial Banking portfolio reflected the transfer of customers to RBSI and NWM as well as the continued exit from legacy assets.

Segmental loans and impairment metrics (audited) (restated: see Note 4 for details)

The table below summarises gross loans and ECL provisions, by days past due, by segment and stage, within the scope of the ECL framework.

	Gross loans						ECL provisions (3)					
		Stage 2 (2)						Stage 2 (2)				
	Stage 1	<30 DPD	>30 DPD	Total	Stage 3	Total	Stage 1	<30 DPD	>30 DPD	Total	Stage 3	Total
31 December 2018 (1)	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
UK PB	134,836	12,521	725	13,245	1,908	149,989	101	382	48	430	597	1,128
Ulster Bank RoI	17,822	1,968	112	2,080	2,308	22,210	35	103	11	114	638	787
Personal (4)	*11,059*	*1,353*	*105*	*1,458*	*2,153*	*14,670*	*13*	*73*	*11*	*84*	*530*	*627*
Wholesale	*6,763*	*615*	*7*	*622*	*155*	*7,540*	*22*	*30*		*30*	*108*	*160*
Commercial Banking	91,034	9,087	430	9,518	2,448	103,000	124	186	8	194	942	1,260
Private Banking	13,750	380	151	531	225	14,506	13	5	5	10	20	43

Personal	*10,803*	*183*	*25*	*208*	*203*	*11,214*	*5*	*3*		*3*	*17*	*25*
Wholesale	*2,947*	*197*	*126*	*323*	*22*	*3,292*	*8*	*2*	*5*	*7*	*3*	*18*
RBS International	13,383	274	15	289	101	13,773	6	3		3	17	26
NatWest Markets	8,196	407		407	728	9,331	6	12		12	106	124
Central items & other	6,964	27		27		6,991						
Total loans excluding balances at central banks	285,985	24,664	1,433	26,097	7,718	319,800	285	691	72	763	2,320	3,368
Personal	*159,553*	*14,106*	*865*	*14,971*	*4,351*	*178,875*	*122*	*458*	*59*	*517*	*1,158*	*1,797*
Wholesale	*126,432*	*10,558*	*568*	*11,126*	*3,367*	*140,925*	*163*	*233*	*13*	*246*	*1,162*	*1,571*
Balances at central banks	87,181					87,181	2					2
Total loans	373,166	24,664	1,433	26,097	7,718	406,981	287	691	72	763	2,320	3,370

	Financial assets				ECL provisions (3)			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
1 January 2018 (1)	£m	£m	£m	£m	£m	£m	£m	£m
UK PB	132,418	13,204	2,406	148,028	110	315	825	1,250
Ulster Bank RoI	19,055	2,347	3,669	25,071	29	106	1,054	1,189
Commercial Banking	97,625	9,776	4,264	111,665	92	143	1,441	1,676
Private Banking	12,755	333	324	13,412	18	9	27	54
RBS International	7,791	307	119	8,217	5	5	28	38
NatWest Markets	11,762	995	501	13,258	2	42	190	234
Central items & other	52,523	10		52,533	5	1		6
Total financial assets excluding balances at central banks	333,929	26,972	11,283	372,184	261	621	3,565	4,447
Balances at central banks	96,566	5		96,571	1			1
Total financial assets	430,495	26,977	11,283	468,755	262	621	3,565	4,448

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

Capital and risk management

Credit risk **Banking activities** continued

Segmental loans and impairment metrics (audited) (restated: see Note 4 for details)

The table below summarises gross loans and ECL provisions coverage, by days past due, by segment and stage, within the scope of the ECL framework.

	ECL provisions coverage							ECL	
		Stage 2 (2,3)					Total		Amounts
	Stage 1	<30 DPD	>30 DPD	Total	Stage 3	Total	charge	Loss rate	written-off
31 December 2018 (1)	%	%	%	%	%	%	£m	basis points	£m
UK PB	0.07	3.05	6.62	3.25	31.29	0.75	339	22.6	445
Ulster Bank RoI	0.20	5.23	9.82	5.48	27.64	3.54	15	6.8	372
Personal (4)	*0.12*	*5.40*	*10.48*	*5.76*	*24.62*	*4.27*	*20*	*13.6*	*343*
Wholesale	*0.33*	*4.88*		*4.82*	*69.68*	*2.12*	*(5)*	*(6.6)*	*29*
Commercial Banking	0.14	2.05	1.86	2.04	38.48	1.22	147	14.3	572
Private Banking	0.09	1.32	3.31	1.88	8.89	0.30	(6)	(4.1)	7
Personal	*0.05*	*1.64*		*1.44*	*8.37*	*0.22*	*(6)*	*(5.4)*	*5*
Wholesale	*0.27*	*1.02*	*3.97*	*2.17*	*13.64*	*0.55*			*2*
RBS International	0.04	1.09		1.04	16.83	0.19	(2)	(1.5)	9
NatWest Markets	0.07	2.95		2.95	14.56	1.33	(92)	(98.6)	89
Central items and other							(3)	(4.3)	
Total loans excluding balances at central banks	0.10	2.80	5.02	2.92	30.06	1.05	398	12.5	1,494
Personal	*0.08*	*3.25*	*6.82*	*3.45*	*26.61*	*1.00*	*354*	*19.8*	*776*
Wholesale	*0.13*	*2.21*	*2.29*	*2.21*	*34.51*	*1.11*	*44*	*3.1*	*718*
Total loans	0.08	2.80	5.02	2.92	30.06	0.83	398	9.8	1,494

	ECL provisions coverage					
		Stage 2 (2,3)				
	Stage 1	<30 DPD	>30 DPD	Total	Stage 3	Total
1 January 2018 (1)	%	%	%	%	%	%
Personal	0.09	2.54	4.80	2.63	28.46	1.31
- UK mortgages	*0.01*	*0.56*	*1.62*	*0.61*	*11.23*	*0.18*
- RoI mortgages	*0.07*	*4.44*	*7.09*	*4.67*	*26.02*	*6.18*
- Credit cards	*1.71*	*9.11*	*27.27*	*9.31*	*53.57*	*5.23*
- Other	*0.80*	*7.99*	*19.64*	*8.30*	*59.44*	*8.03*
Wholesale	0.07	1.88	2.07	1.88	35.51	1.09
- Property	*0.07*	*1.13*	*1.15*	*1.13*	*32.43*	*1.81*
- Corporate	*0.14*	*1.90*	*2.86*	*1.92*	*36.50*	*1.80*
- Financial institutions	*0.03*	*3.57*		*3.38*	*65.71*	*0.34*
- Other	*0.01*	*0.85*		*0.85*		*0.01*
Total financial assets	0.06	2.25	3.75	2.30	31.60	0.95

Notes:

(1) The segment analysis tables at 31 December 2018 include all loans amortised cost within the scope of IFRS 9. The comparative tables at 1 January 2018 include all financial assets within the scope of IFRS 9, including debt securities of £50.4 billion, of which £42.7 billion related to debt securities classified as FVOCI. ECL on these debt securities at 1 January 2018 was £28 million, of which £4 million related to those classified as FVOCI.

(2) 30 DPD 30 days past due, the mandatory 30 days past due backstop is prescribed by IFRS 9 for significant increase in credit risk.

(3) ECL provisions on contingent liabilities and commitments are included within the Financial assets section so as not to distort ECL coverage ratios.

(4) 31 December 2018, £3 million of the write offs related to business banking portfolio in Ulster Bank RoI.

Key points

- The UK PB and Ulster Bank RoI franchises accounted for the vast majority of Personal provisions. In Ulster Bank RoI, Personal provisions were primarily driven by Stage 3 impairments on the legacy mortgage book.

- The Commercial Banking business accounted for the majority of Wholesale exposures. Wholesale provisions in UK PB reflected exposures to business banking customers and also the commercial businesses in RBS England & Wales/NatWest Scotland.

- On performing exposures (Stage 1 and Stage 2), materially higher ECL provision was held in credit deteriorated Stage 2 exposures than in Stage 1, in line with expectations. This was also reflected in provision coverage levels.

- Also in line with expectations, the majority of Stage 2 exposures were less than 30 days past due, since PD deterioration is the primary driver of credit deterioration.

- The differing cover rates between the Personal and Wholesale portfolios and across the business largely reflected differences in asset mix, including security cover, and the differing impacts of external environment events.

Capital and risk management

Credit risk Banking activities continued

Portfolio summary sector analysis (audited)

The table below summarises financial assets and off-balance sheet exposures gross of ECL and related ECL provisions, impairment and past due by sector, asset quality and geographical region based on the country of operation of the customer.

	Personal				Wholesale					Total
	Mortgages (1)	Credit cards	Other personal	Total	Property	Corporate	FI	Sovereign	Total	
31 December 2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Loans by geography	165,081	4,216	9,578	178,875	36,707	72,240	25,011	6,967	140,925	319,800
- UK	*150,233*	*4,112*	*9,117*	*163,462*	*33,855*	*60,657*	*11,611*	*3,089*	*109,212*	*272,674*
- RoI	*14,350*	*104*	*233*	*14,687*	*1,114*	*3,733*	*392*	*2,497*	*7,736*	*22,423*
- Other Europe	*102*		*67*	*169*	*1,395*	*3,760*	*5,903*	*1,088*	*12,146*	*12,315*
- RoW	*396*		*161*	*557*	*343*	*4,090*	*7,105*	*293*	*11,831*	*12,388*
Loans by asset quality (2,3)	165,081	4,216	9,578	178,875	36,707	72,240	25,011	6,967	140,925	319,800
- AQ1-AQ4	*104,989*	*35*	*1,040*	*106,064*	*16,133*	*22,587*	*22,397*	*6,802*	*67,919*	*173,983*
- AQ5-AQ8	*55,139*	*3,990*	*7,736*	*66,865*	*18,815*	*47,651*	*2,574*	*161*	*69,201*	*136,066*
- AQ9	*1,287*	*69*	*239*	*1,595*	*74*	*359*	*5*		*438*	*2,033*
- AQ10	*3,666*	*122*	*563*	*4,351*	*1,685*	*1,643*	*35*	*4*	*3,367*	*7,718*
Loans by stage	165,081	4,216	9,578	178,875	36,707	72,240	25,011	6,967	140,925	319,800
- Stage 1	*149,760*	*2,851*	*6,942*	*159,553*	*33,145*	*61,844*	*24,502*	*6,941*	*126,432*	*285,985*
- Stage 2	*11,655*	*1,243*	*2,073*	*14,971*	*1,877*	*8,753*	*474*	*22*	*11,126*	*26,097*
- Stage 3	*3,666*	*122*	*563*	*4,351*	*1,685*	*1,643*	*35*	*4*	*3,367*	*7,718*
Loans - past due analysis (4,5)	165,081	4,216	9,578	178,875	36,707	72,240	25,011	6,967	140,925	319,800
- Not past due	*160,165*	*4,027*	*8,749*	*172,941*	*35,420*	*69,782*	*24,388*	*6,923*	*136,513*	*309,454*
- Past due 1-29 days	*1,714*	*69*	*180*	*1,963*	*270*	*1,397*	*604*	*42*	*2,313*	*4,276*
- Past due 30-89 days	*1,048*	*40*	*105*	*1,193*	*271*	*344*	*11*	*2*	*628*	*1,821*
- Past due 90-180 days	*632*	*29*	*69*	*730*	*56*	*83*	*1*		*140*	*870*
- Past due >180 days	*1,522*	*51*	*475*	*2,048*	*690*	*634*	*7*		*1,331*	*3,379*
Loans - Stage 2	11,655	1,243	2,073	14,971	1,877	8,753	474	22	11,126	26,097
- Not past due	*9,788*	*1,172*	*1,843*	*12,803*	*1,556*	*8,196*	*472*	*22*	*10,246*	*23,049*
- Past due 1-29 days	*1,126*	*43*	*133*	*1,302*	*68*	*244*	*1*		*313*	*1,615*
- Past due 30-89 days	*741*	*28*	*97*	*866*	*253*	*313*	*1*		*567*	*1,433*
Weighted average life *										
- ECL measurement (years)	8	2	3	5	3	3	4	3	3	4
Weighted average 12 months PDs *										
- IFRS 9 (%)	0.32	4.03	2.77	0.54	0.75	0.97	0.14	0.06	0.75	0.62
- Basel (%)	0.84	3.52	3.50	1.04	0.95	1.43	0.23	0.06	1.01	1.03
ECL provisions by geography	839	230	728	1,797	588	941	41	1	1,571	3,368
- UK	*237*	*227*	*707*	*1,171*	*518*	*615*	*27*	*1*	*1,161*	*2,332*
- RoI	*602*	*3*	*21*	*626*	*43*	*125*	*2*		*170*	*796*
- Other Europe					*22*	*53*	*10*		*85*	*85*

- RoW					*5*	*148*	*2*		*155*	*155*
ECL provisions by stage	839	230	728	1,797	588	941	41	1	1,571	3,368
- Stage 1	*23*	*38*	*61*	*122*	*43*	*107*	*12*	*1*	*163*	*285*
- Stage 2	*150*	*120*	*247*	*517*	*39*	*200*	*7*		*246*	*763*
- Stage 3	*666*	*72*	*420*	*1,158*	*506*	*634*	*22*		*1,162*	*2,320*
ECL provisions coverage (%)	0.51	5.46	7.60	1.00	1.60	1.30	0.16	0.01	1.11	1.05
- Stage 1 (%)	*0.02*	*1.33*	*0.88*	*0.08*	*0.13*	*0.17*	*0.05*	*0.01*	*0.13*	*0.10*
- Stage 2 (%)	*1.29*	*9.65*	*11.92*	*3.45*	*2.08*	*2.28*	*1.48*		*2.21*	*2.92*
- Stage 3 (%)	*18.17*	*59.02*	*74.60*	*26.61*	*30.03*	*38.59*	*62.86*		*34.51*	*30.06*
ECL charge	57	87	210	354	30	13	3	(2)	44	398
- UK	*38*	*88*	*207*	*333*	*31*	*9*	*6*	*(2)*	*44*	*377*
- RoI	*19*	*(1)*	*3*	*21*	*(1)*	*(3)*	*(1)*		*(5)*	*16*
- Other Europe						*8*	*(2)*		*6*	*6*
- RoW						*(1)*			*(1)*	*(1)*
ECL loss rate (%)	0.03	2.06	2.19	0.20	0.08	0.02	0.01	(0.03)	0.03	0.12
Amounts written-off	368	79	329	776	292	395	31		718	1,494

* Not within audit scope.

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

Capital and risk management

Credit risk **Banking activities** continued

Portfolio summary **sector analysis** (audited)

	Personal				Wholesale							
	Mortgages	Credit cards	Other personal	Total	Property	Corporate	FI	Sovereign	Total	Total	Fixed	Variable
31 December 2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Loans by residual maturity	165,081	4,216	9,578	178,875	36,707	72,240	25,011	6,967	140,925	319,800	152,557	167,243
- <1yr	*11,244*	*919*	*4,960*	*17,123*	*9,533*	*29,788*	*17,602*	*6,362*	*63,285*	*80,408*	*20,534*	*59,874*
- 1-5yr	*35,184*	*3,297*	*3,816*	*42,297*	*18,797*	*30,772*	*6,167*	*245*	*55,981*	*98,278*	*34,250*	*64,028*
- 5yr	*118,653*		*802*	*119,455*	*8,377*	*11,680*	*1,242*	*360*	*21,659*	*141,114*	*97,773*	*43,341*
Other financial assets by asset quality (2)					105	652	8,838	134,546	144,141	144,141		
- AQ1-AQ4					*105*	*10*	*8,110*	*134,546*	*142,771*	*142,771*		
- AQ5-AQ8						*642*	*721*		*1,363*	*1,363*		
- AQ9							*4*		*4*	*4*		
- AQ10							*3*		*3*	*3*		
Off-balance sheet	13,228	16,613	12,229	42,070	16,044	52,730	28,761	29,277	126,812	168,882		
- Loan commitments	*13,228*	*16,613*	*12,229*	*42,070*	*15,335*	*48,569*	*26,684*	*29,276*	*119,864*	*161,934*		
- Financial guarantees					*709*	*4,161*	*2,077*	*1*	*6,948*	*6,948*		
Off-balance sheet by asset quality (2)	13,228	16,613	12,229	42,070	16,044	52,730	28,761	29,277	126,812	168,882		
- AQ1-AQ4	*12,116*	*422*	*9,103*	*21,641*	*11,945*	*36,134*	*27,364*	*29,262*	*104,705*	*126,346*		
- AQ5-AQ8	*1,101*	*15,900*	*3,116*	*20,117*	*3,928*	*16,390*	*1,397*	*15*	*21,730*	*41,847*		
- AQ9	*1*	*8*	*10*	*19*	*6*	*46*			*52*	*71*		
- AQ10	*10*	*283*		*293*	*165*	*160*			*325*	*618*		

		Total IFRS 9 credit risk exposure by stage					
	Total credit		Stage 2 (2,3)				ECL
	exposure	Stage 1	<30 DPD	>30 DPD	Total	Stage 3	provisions
1 January 2018	£m	£m	£m	£m	£m	£m	£m
Personal	177,196	155,843	14,460	625	15,085	6,268	2,316
UK mortgages	*146,556*	*134,350*	*10,119*	*431*	*10,550*	*1,656*	*262*
RoI mortgages	*15,549*	*10,674*	*1,351*	*127*	*1,478*	*3,397*	*961*
Credit cards	*4,247*	*3,097*	*999*	*11*	*1,010*	*140*	*222*
Other personal (6)	*10,844*	*7,722*	*1,991*	*56*	*2,047*	*1,075*	*871*
Wholesale	194,988	178,086	11,500	387	11,887	5,015	2,131
Property	*37,877*	*33,884*	*1,942*	*87*	*2,029*	*1,964*	*685*

Corporate	*73,667*	*62,253*	*8,224*	*245*	*8,469*	*2,945*	*1,325*
Financial institutions	*34,064*	*32,923*	*981*	*55*	*1,036*	*105*	*115*
Sovereign	*49,380*	*49,026*	*353*		*353*	*1*	*6*
Total financial assets excluding balances at central banks	372,184	333,929	25,960	1,012	26,972	11,283	4,447
Balances at central banks	96,571	96,566	5		5		1
Total financial assets	468,755	430,495	25,965	1,012	26,977	11,283	4,448
Total contingent liabilities and commitments	146,800	139,550	6,388	113	6,501	749	
Total exposure	615,555	570,045	32,353	1,125	33,478	12,032	
Financial assets - asset quality (2)							
- AQ1-AQ4	230,773	223,789	6,883	101	6,984		
- AQ5-AQ8	128,814	109,962	17,449	660	18,109	743	
- AQ9	2,912	178	1,628	251	1,879	855	
- AQ10 (3)	9,685					9,685	

Notes:

(1) At 31 December 2018, Mortgages include £0.7 billion secured lending in Private Banking, in line with ECL calculation methodology.

(2) AQ bandings are based on Basel PDs.

(3) At 31 December 2018, AQ10 includes £0.6 billion (31 December 2017 £0.7 billion) RoI mortgages which are not currently considered defaulted for capital calculation purposes for RoI but included in Stage 3.

(4) 30 DPD 30 days past due, the mandatory 30 days past due backstop as prescribed by the IFRS 9 guidance for significant increase in credit risk.

(5) Days past due Personal products: at a high level, for amortising products, the number of days past due is derived from the arrears amount outstanding and the monthly repayment instalment. For credit cards, it is based on payments missed, and for current accounts the number of continual days in excess of borrowing limit. Wholesale products: the number of days past due for all products is the number of continual days in excess of borrowing limit.

(6) At 1 January 2018, mortgages other than UK and RoI were reported within other personal but at 31 December 2018 they are reported separately.

Capital and risk management

Credit risk Banking activities continued

Portfolio summary sector analysis (audited)

Wholesale forbearance

The table below summarises Wholesale forbearance, Heightened Monitoring and Risk of Credit Loss by sector. Personal forbearance is disclosed on page 144.

2018	FI £m	Property £m	Sovereigns £m	Other corporate £m	Total £m
Forbearance (flow)	14	305		2,247	2,566
Forbearance (stock)	15	477		2,756	3,248
Heightened Monitoring and Risk of Credit Loss	100	503	16	4,145	4,764
2017					
Forbearance (flow)	11	417		1,473	1,901
Forbearance (stock)	14	764		3,067	3,845
Heightened Monitoring and Risk of Credit Loss	144	739		4,183	5,066

Risk elements in lending (restated: see Note 4 for details)

The table below summarises risk elements in lending by segment on an IAS 39 basis.

	UK PB £m	Ulster Bank RoI £m	Commercial Banking £m	Private Banking £m	RBS International £m	NatWest Markets £m	Central items & other £m	Total £m
At 1 January 2017	1,975	3,513	2,343	105	109	2,264	1	10,310
Inter segment transfers	(163)		1,547			(1,384)		
Currency translation and other adjustments		123			5	(86)	1	43
Additions	945	550	1,872	28	62	98	14	3,569
Transfers between REIL and potential problem loans	(153)		11	(2)	7	8		(129)
Transfer to performing book	(263)	(336)	(314)		(33)	(12)	(1)	(959)
Repayments and disposals	(373)	(444)	(1,349)	(32)	(41)	(468)	(13)	(2,720)
Amounts written-off	(425)	(124)	(482)	(4)	(6)	(167)	(2)	(1,210)
At 31 December 2017	1,543	3,282	3,628	95	103	253		8,904

Provisions (restated: see Note 4 for details)

The table below summarises provisions by segment on an IAS 39 basis.

	UK PB	Ulster Bank RoI	Commercial Banking	Private Banking	RBS International	NatWest Markets	Central items & other	Total

	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2017	1,230	1,200	1,152	31	38	803	1	4,455
Inter segment transfers	(110)		403			(293)		
Currency translation and other adjustments		8	(7)			(27)		(26)
Repayments and disposals						(5)		(5)
Amounts written-off	(424)	(124)	(483)	(4)	(6)	(167)	(2)	(1,210)
Recoveries of amounts previously written-off	114	12	19		1	10		156
Charges/(releases) to income statement	207	60	390	6	3	(137)	1	530
Unwind of discount	(31)	(25)	(18)	(1)	(1)	(10)		(86)
At 31 December 2017	986	1,131	1,456	32	35	174		3,814

Capital and risk management

Credit risk Banking activities continued

Portfolio summary sector analysis (audited)

Key points

- Geography The majority of exposures in both the Personal and Wholesale portfolios were in the UK and the Republic of Ireland. Other exposures in Europe and the Rest of the World were mainly Wholesale. Mortgages, the vast majority of which are in the UK, accounted for more than half of the total exposure.

- Asset quality Measured against RBS s asset quality scale, 54% of lending exposure was rated in the AQ1-AQ4 bands at 31 December 2018. This equated to an indicative investment rating of BBB- or above. Specifically 59% of Personal and 48% of Wholesale lending exposure were in the AQ1-AQ4 category respectively.

- Loans by stage 90% of exposures were in Stage 1, with 8% in Stage 2 significantly credit deteriorated. Stage 3 assets, which align to AQ10, represented 2% of total exposures. In line with expectations, the Personal portfolio had a higher proportion of unsecured lending assets in Stage 2 than the mortgage portfolio. In the Wholesale portfolio, the proportion of assets in Stage 2 was slightly lower than in Personal overall.

- Loans Past due analysis Stage 2: the vast majority of assets overall were not past due, with the Stage 2 classification driven primarily by changes in lifetime PD. (For further detail, refer to the Significant increase in credit risk section). In mortgages, the majority of assets past due by more than 180 days were in Ulster Bank RoI reflecting the legacy mortgage portfolio and the residual effects from the financial crisis. In other personal, the relatively high rate of exposures past due by more than 90 days reflected the fact that impaired assets can be held on balance sheet with commensurate ECL provision for up to six years after default. Similarly in the Wholesale portfolio, impaired assets can be held on the balance sheet for a significant period of time while restructuring and recovery processes are concluded.

- Weighted average 12 months PDs In Wholesale, Basel PDs, which are based on a through-the-cycle approach, tend to be higher than point-in-time best estimate IFRS 9 PDs, reflecting the current state in the economic cycle, and also an element of conservatism in the regulatory capital framework. In Personal, the Basel PDs, which are point-in-time estimates, tend to be higher also reflecting conservatism, higher in mortgages than other products, and an element of default rate under-prediction in the IFRS 9 PD models. This has been mitigated by ECL overlays of approximately £60 million at the year end, pending model calibrations being implemented. The IFRS 9 PD for credit cards was higher than the Basel equivalent and reflected the relative sensitivity of the IFRS 9 model to forward-looking economic drivers.

- ECL provision by geography In line with exposures by geography, the weight of ECL related to exposures in the UK and the Republic of Ireland. The ECL in RoI was mainly Stage 3 provisions in the legacy Ulster Bank RoI mortgage portfolio.

- ECL provision by stage and coverage The weight of ECL by value was in Stage 3 impaired, with similar seen in both Personal and Wholesale. Provision coverage was progressively higher by stage reflecting the lifetime nature of losses in both Stage 2 and Stage 3. In the Personal portfolio, provision coverage was materially lower in mortgages relative to credit cards and other personal reflecting the secured nature of the facilities. For Wholesale exposures, security and enterprise value mitigated against losses in Stage 3.

- The ECL charge for the year was £398 million. This reflected the relatively stable external environment.

- Other financial assets by asset quality Consisting almost entirely of cash and balances at central banks and debt securities, these assets were mainly within the AQ1-AQ4 category.

- Off-balance sheet exposures by asset quality For Personal exposures, undrawn exposures are reflective of available credit lines in credit cards and current accounts. Additionally, the mortgage portfolio had undrawn exposure, where a formal offer has been made to a customer but has not yet been drawn down. There is also a legacy portfolio of flexible mortgages where a customer has the right and ability to draw down further funds. The asset quality distribution in mortgages is heavily weighted to the highest quality bands AQ1-AQ4, with credit card concentrated in the risk bands AQ5-AQ8. In Wholesale, 83% of undrawn exposure, relating mainly to loan commitments, was in the AQ1-AQ4 category.

- Forbearance Completed forbearance flow in 2018 for Wholesale was £2.6 billion compared to £1.9 billion in 2017. Forbearance granted in the transport sector increased to £493 million from £54 million, mainly driven by a customer which has been restructured and moved to Stage 2 from Stage 3 during the year. Forbearance across the diverse services sector increased from £347 million to £763 million. Of the forbearance that completed during the year, £1.1 billion related to payment concessions (2017 £1.4 billion) and £1.4 billion related to non-payment concessions (2017 £0.5 billion). Forbearance stock reduced by £0.6 billion, from £3.8 billion to £3.2 billion, driven by a decrease in forborne exposure in the energy and resources, property and retail and leisure sectors.

- Heightened Monitoring and Risk of Credit Loss Exposure decreased from £5.1 billion at 31 December 2017, to £4.8 billion at 31 December 2018. There was also a decrease in the number of customers classified as Heightened Monitoring and Risk of Credit Loss during the year. Despite the current economic uncertainty in the UK, the portfolio has remained stable.

Capital and risk management

Credit risk Banking activities continued
Portfolio summary sector analysis (audited)
The table below summarises both current and potential exposure by geographical region on an IAS 39 basis.

	Wholesale (1)					Wholesale (1)					
	Personal	Banks and other FI s	Sovereigns (2)	Other	Current exposure	Personal	Banks and other FI s	Sovereigns (2)	Other	Total	Total exposure
2017	£m	£m	£m	£m	£m	%	%	%	%	%	£m
UK	158,965	17,992	91,161	94,896	363,014	33	4	19	20	76	413,378
RoI	15,319	751	2,416	4,612	23,098	3		1	1	5	24,502
Other Western Europe	514	7,504	43,414	8,559	59,991		2	9	2	13	86,866
US	377	6,987	8,430	2,580	18,374		1	2	1	4	31,497
RoW (3)	1,461	4,575	2,155	3,144	11,335		1		1	2	14,602
	176,636	37,809	147,576	113,791	475,812	36	8	31	25	100	570,845

Notes:

(1) Includes SME customers managed in Commercial Banking who are assigned a sector under RBS s sector concentration framework.

(2) Includes exposures to central governments, central banks and sub-sovereigns such as local authorities.

(3) Rest of world (RoW) also includes supranationals such as the World Bank and exposure relating to ocean-going vessels which cannot be meaningfully assigned to specific countries from a country risk perspective.

Loan asset quality
The table below summarises asset quality and impairments by banks and customers on an IAS 39 basis.

	AQ1-AQ4	AQ5-AQ8	AQ9	AQ10	Past due	Impaired	Impairment provision	Total
2017	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn
Banks	27.7	2.6						30.3
Customers	226.8	109.6	2.8	0.7	6.4	7.4	(3.8)	349.9

Loan sector concentration

The table below summarises gross loans to banks and customers (excluding reverse repos) and related credit metrics by sector, on an IAS 39 basis.

Credit metrics

2017	Gross loans £m	REIL £m	Provisions £m	REIL as a % of gross loans %	Provisions as a % of REIL %	Provisions as a % of gross loans %	Impairment losses/ (releases) £m	Amounts written-off £m
Central and local government	4,684							
Finance	30,832	54	44	0.2	81	0.1	3	7
Personal - mortgage (1)	163,010	3,876	994	2.4	26	0.6	50	87
- unsecured	14,587	937	763	6.4	81	5.2	235	424
Property	33,381	1,119	283	3.4	25	0.8	(82)	133
Construction	3,798	426	298	11.2	70	7.8	196	36
Of which: commercial real estate	*24,784*	*1,189*	*293*	*4.8*	*25*	*1.2*	*(76)*	*139*
Manufacturing	8,862	147	64	1.7	44	0.7	4	25
Finance leases and instalment credit	12,019	170	88	1.4	52	0.7	23	14
Retail, wholesale and repairs	12,300	446	193	3.6	43	1.6	93	81
Transport and storage	4,241	700	195	16.5	28	4.6	(32)	165
Health, education and leisure	11,337	330	145	2.9	44	1.3	65	48
Hotels and restaurants	6,049	193	80	3.2	41	1.3	17	46
Utilities	4,172	35	21	0.8	60	0.5	(18)	13
Other	17,726	471	256	2.7	54	1.4	(10)	131
Latent			390				(14)	
Total customer	326,998	8,904	3,814	2.7	43	1.2	530	1,210
Total banks	16,264							

Note:

(1) Mortgages are reported in sectors other than personal mortgages by certain businesses based on the nature of the relationship with the customer.

Past due analysis

The table below summarises loans amortised cost to customers that were past due at the balance sheet date but were not considered impaired.

Number of days	2017 £m	By sector	2017 £m
Past due 1-29 days	3,535	Personal	3,731
Past due 30-59 days	902	Property and construction	667
Past due 60-89 days	456	Financial institution	24
Past due 90 days or more	1,481	Other corporate	1,952
	6,374		6,374

Capital and risk management

Credit risk Banking activities continued

Credit risk enhancement and mitigation (audited)

The table below summarises exposures of modelled portfolios within the scope of the ECL framework and related credit risk enhancement and mitigation (CREM). Excluded from this analysis are the non modelled portfolios, primarily Private Banking and RBSI mortgage portfolios, which are discussed in the Personal portfolio section, including loan-to-value ratios. Refer to Policy elections and simplifications relating to IFRS 9 section for details on non-modelled portfolios.

	Gross		Maximum credit risk		CREM by type			CREM coverage		Exposure post CREM	
	exposure	ECL	Total	Stage 3	Financial (1)	Property	Other (2)	Total	Stage 3	Total	Stage 3
2018	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn
Financial assets											
Cash and balances at central banks	87.2		87.2							87.2	
Loans - amortised cost (3)	302.6	3.2	299.4	5.0	4.1	188.1	19.7	211.9	4.5	87.5	0.5
Personal (4)	164.6	1.7	162.9	2.9		151.7		151.7	2.7	11.2	0.2
Wholesale (5)	138.0	1.5	136.5	2.1	4.1	36.4	19.7	60.2	1.8	76.3	0.3
Debt securities	57.0		57.0							57.0	
Total financial assets	446.8	3.2	443.6	5.0	4.1	188.1	19.7	211.9	4.5	231.7	0.5
Contingent liabilities and commitments											
Personal (6)	31.0		31.0	0.3		4.9		4.9		26.1	0.3
Wholesale	126.2		126.2	0.3	0.6	5.9	6.1	12.6		113.6	0.3
Total off balance sheet	157.2		157.2	0.6	0.6	10.8	6.1	17.5		139.7	0.6
Total exposure	604.0	3.2	600.8	5.6	4.7	198.9	25.8	229.4	4.5	371.4	1.1

Notes:

(1) Financial collateral includes cash and securities collateral.

(2) Other collateral includes guarantees, charges over trade debtors as well as the amount by which credit risk exposure is reduced through netting arrangements, mainly cash management pooling, which give RBS a legal right to set off the financial asset against a financial liability due to the same counterparty.

(3) RBS holds collateral in respect of individual loans amortised cost to banks and customers. This collateral includes mortgages over property (both personal and commercial); charges over business assets such as plant and equipment, inventories and trade debtors; and guarantees of lending from parties other than the borrower. RBS obtains collateral in the form of securities in reverse repurchase agreements. Collateral values are capped at the value of the loan.

(4) On personal, Stage 3 mortgage exposures have relatively limited uncovered exposure reflecting the security held. On unsecured credit cards and other personal borrowing, the residual uncovered amount reflects historical experience of continued cash recovery post default through on-going engagement with customers.

(5) Stage 3 exposures post credit risk enhancement and mitigation in wholesale mainly represent enterprise value and the impact of written down collateral values; an individual assessment to determine ECL will consider multiple scenarios and in some instances allocate a probability weighting to a collateral value in excess of the written down value.

(6) At 31 December 2018, £0.3 billion personal Stage 3 balances primarily relate to loan commitments, the draw down of which is effectively prohibited.

The table below summarises financial asset exposures, both gross and net of offset arrangements, as well as credit mitigation and enhancement.

					Collateral (1)					
							Real estate and other			
2017	Gross exposure £bn	IFRS offset (5) £bn	Carrying value (6) £bn	Balance sheet offset (7) £bn	Cash (2) £bn	Securities (3) £bn	Residential (4) £bn	Commercial (4) £bn	Credit enhancement (8) £bn	Exposure post credit mitigation and enhancement £bn
Cash and balances at central banks	98.4		98.4							98.4
Trading assets	118.6	(32.6)	86.0	(0.3)		(32.5)				53.2
Derivatives	177.9	(17.1)	160.8	(128.3)	(20.3)	(5.9)			(6.3)	
Settlement balances	3.2	(0.7)	2.5							2.5
Loans - amortised cost	334.1	(12.5)	321.6	(27.9)	(0.9)	(11.2)	(174.2)	(45.0)	(2.1)	60.3
Other financial assets	52.0		52.0					(0.1)		51.9
Total third party gross of short positions	784.2	(62.9)	721.3	(156.5)	(21.2)	(49.6)	(174.2)	(45.1)	(8.4)	266.3
Short positions	(28.5)		(28.5)							(28.5)
Net of short positions	755.7	(62.9)	692.8	(156.5)	(21.2)	(49.6)	(174.2)	(45.1)	(8.4)	237.8

Notes:

(1) RBS holds collateral in respect of individual loans. This collateral includes mortgages over property (both personal and commercial); charges over business assets such as plant, inventories and trade debtors; and guarantees of lending from parties other than the borrower. RBS obtains collateral in the form of securities in reverse repurchase agreements. Cash and securities are received as collateral in respect of derivative transactions.

(2) Includes cash collateral pledged by counterparties based on daily mark-to-market movements of net derivative positions with the counterparty.

(3) Represent the fair value of securities received from counterparties, mainly relating to reverse repo transactions as part of netting arrangements.

(4) Property valuations are capped at the loan value and reflect the application of haircuts in line with regulatory rules to indexed valuations. Commercial collateral includes ships and plan and equipment collateral.

(5) Relates to offset arrangements that comply with IFRS criteria and transactions cleared through and novated to central clearing houses, primarily London Clearing House (LCH) and US Government Securities Clearing Corporation. During 2017 changes in the legal contracts with LCH and CME led to many derivatives cleared through that counterparty being settled to market each day rather than being collateralised as previously. This led to the derecognition of the associated assets and liabilities.

(6) The carrying value on the balance sheet represents the maximum exposure to credit risk by class of financial instrument.

(7) The amount by which credit risk exposure is reduced through arrangements, such as master netting agreements and cash management pooling, which give RBS a legal right to set off the financial asset against a financial liability due to the same counterparty.

(8) Comprises credit derivatives (bought protection) and guarantees against exposures.

Capital and risk management

Credit risk **Banking activities** continued

Personal portfolio (audited)

Disclosures in the Personal portfolio section include drawn exposure (gross of provisions). Loan-to-value (LTV) ratios are split by stage under IFRS 9 at 31 December 2018 and by performing and non-performing status under IAS 39 at 31 December 2017.

	2018					2017				
	UK PB	Ulster Bank RoI	Private Banking	RBSI	Total	UK PB	Ulster Bank RoI	Private Banking	RBSI	Total
Personal lending	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Mortgages	138,250	14,361	9,082	2,684	164,377	136,625	15,352	8,421	2,745	163,143
Of which:										
Owner occupied	122,642	13,105	7,953	1,781	145,481	118,764	13,455	7,275	1,821	141,315
Buy-to-let	15,608	1,256	1,129	903	18,896	17,861	1,897	1,146	924	21,828
Interest only - variable	8,358	188	3,871	489	12,906	11,245	260	4,076	636	16,217
Interest only - fixed	12,229	12	3,636	187	16,064	12,584	8	2,866	96	15,554
Mixed (1)	6,036	68	2	18	6,124	6,039	79	2	20	6,140
Impairment provisions (2)	212	602	5	16	835	153	909	7	27	1,096
Other personal lending (3)	11,633	330	1,676	55	13,694	11,080	348	1,701	65	13,194
Impairment provisions (2)	909	25	19	1	954	833	44	19	2	898
Total personal lending	149,883	14,691	10,758	2,739	178,071	147,705	15,700	10,122	2,810	176,337
Mortgage LTV ratios										
- Total portfolio	56%	62%	56%	58%	57%	56%	69%	55%	58%	57%
- *Stage 1*	56%	58%	56%	57%	56%	56%	65%	55%	56%	57%
- *Stage 2*	58%	67%	58%	55%	59%					
- *Stage 3*	55%	77%	58%	99%	69%	57%	88%	59%	122%	78%
- Buy-to-let	53%	64%	53%	53%	54%	54%	75%	54%	50%	56%
- *Stage 1*	53%	58%	53%	52%	53%					
- *Stage 2*	57%	72%	53%	57%	60%					