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

PO Box 1000

Edinburgh EH12 1HQ

Scotland

United Kingdom

(Address of principal executive offices)

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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Form F-3 (File No. 333-222022) and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.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 Rol 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)

Page 117 (Capital and risk management Capital, liquidity and funding risk RWAs by segment)

Page 121 (Capital and risk management Capital, liquidity and funding risk Funding gap: maturity and segmental analysis)

Page 134 (Capital and risk management Credit risk Economic sensitivity analysis)

Pages 135 to 137 (Capital and risk management Credit risk banking activities Portfolio summary segment analysis (audited))

Pages 136 to 137 (Capital and risk management Credit risk banking activities Segmental loans and impairment metrics (audited))

Page 140 (Capital and risk management Credit risk banking activities REIL and provisions)

Pages 149 to 152 (Capital and risk management Credit risk banking activities Flow statements (audited))

Page 163 (Capital and risk management non-traded market risk - Net interest income - impact of product structural hedging (unaudited))

Pages 178 to 179 (Report of Independent Registered Public Accounting Firm)

Page 192 (Notes on the consolidated accounts Note 3 Operating expenses Headcount)

Page 194 to 197 (Notes on the consolidated accounts Note 4 Segmental analysis)

Pages impacted by Reporting standard IAS 12 Income taxes:

Pages 38 to 40 (Financial summary)

Page 180 (Consolidated income statement for the year ended 31 December 2018)

Page 181 (Consolidated statement of comprehensive income for the year ended 31 December 2018)

Page 183 (Consolidated statement of changes in equity for the year ended 31 December 2018)

Page 204 (Notes on the consolidated accounts Note 7 Tax)

Pages 245 to 246 (Notes on the consolidated accounts Note 36 Consolidating financial information)

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 expression 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 is 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 is 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 is 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 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.

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 Rol 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.

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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 mear 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 Rol

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 Rol and Commercial & Private (CPB) franchise, combining the
 reportable segments of Commercial Banking and Private Banking.

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.

	2018	2017	2016	2015	2014
Summary consolidated income statement	£m	£m	£m	£m	£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)
	2018	2017			
Notable items within total income	2018	2017			
Notable items within total income	£m	£m			
IFRS volatility in Central items & other	£m (59)				
IFRS volatility in Central items & other Insurance indemnity	£m	£m			
IFRS volatility in Central items & other Insurance indemnity Of which:	£m (59) 357	£m			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets	£m (59) 357	£m			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other	£m (59) 357 165 192	£m 2			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain	£m (59) 357 165 192 61	£m 2 185			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other	£m (59) 357 165 192 61 (46)	£m 2 185 (183)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain	£m (59) 357 165 192 61 (46) 169	£m 2 185 (183) 6			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses	£m (59) 357 165 192 61 (46) 169 (86)	£m 2 185 (183) 6 (712)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment	£m (59) 357 165 192 61 (46) 169	£m 2 185 (183) 6 (712) (69)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt	£m (59) 357 165 192 61 (46) 169 (86)	£m 2 185 (183) 6 (712) (69) (7)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment	£m (59) 357 165 192 61 (46) 169 (86) 92	£m 2 185 (183) 6 (712) (69) (7) 347			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt	£m (59) 357 165 192 61 (46) 169 (86)	£m 2 185 (183) 6 (712) (69) (7)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt Strategic disposals	£m (59) 357 165 192 61 (46) 169 (86) 92	£m 2 185 (183) 6 (712) (69) (7) 347 (431)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt Strategic disposals Performance key metrics and ratios	£m (59) 357 165 192 61 (46) 169 (86) 92	£m 2 185 (183) 6 (712) (69) (7) 347 (431)			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt Strategic disposals Performance key metrics and ratios Return on tangible equity (%)	£m (59) 357 165 192 61 (46) 169 (86) 92 488 2018 5.0	£m 2 185 (183) 6 (712) (69) (7) 347 (431) 2017 2.5			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt Strategic disposals Performance key metrics and ratios Return on tangible equity (%) Net interest margin (%) (1)	£m (59) 357 165 192 61 (46) 169 (86) 92 488 2018 5.0 1.98	£m 2 185 (183) 6 (712) (69) (7) 347 (431) 2017 2.5 2.13			
IFRS volatility in Central items & other Insurance indemnity Of which: NatWest Markets Central items & other UK PB debt sale gain FX losses in Central items & other Commercial Banking fair value and disposal gain NatWest Markets legacy business disposal losses Own credit adjustment Loss on redemption of own debt Strategic disposals Performance key metrics and ratios Return on tangible equity (%)	£m (59) 357 165 192 61 (46) 169 (86) 92 488 2018 5.0	£m 2 185 (183) 6 (712) (69) (7) 347 (431) 2017 2.5			

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.

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			
Dividend payout ratio (%)	2010	2017	2016	2015	2014
=	14.9	2017	2016	2015	2014
Basic and diluted earnings/(loss) per ordinary share from		2017	2016	2015	2014
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1)	14.9 13.5	6.3	(59.5)	(27.7)	2014
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £	14.9 13.5 2.17	6.3 2.78	(59.5) 2.25	(27.7) 3.02	0.5 3.94
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn	14.9 13.5 2.17 26.1	6.3 2.78 33.3	(59.5) 2.25 26.6	(27.7) 3.02 35.1	0.5 3.94 45.2
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £	14.9 13.5 2.17	6.3 2.78	(59.5) 2.25	(27.7) 3.02	0.5 3.94
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn Net asset value per ordinary share - £	14.9 13.5 2.17 26.1	6.3 2.78 33.3	(59.5) 2.25 26.6	(27.7) 3.02 35.1	0.5 3.94 45.2
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn	14.9 13.5 2.17 26.1	6.3 2.78 33.3	(59.5) 2.25 26.6	(27.7) 3.02 35.1	0.5 3.94 45.2 5.12
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn Net asset value per ordinary share - £	14.9 13.5 2.17 26.1 3.86	6.3 2.78 33.3 4.10	(59.5) 2.25 26.6 4.18	(27.7) 3.02 35.1 4.66	0.5 3.94 45.2 5.12
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn Net asset value per ordinary share - £ Capital ratios Return on average total assets (2)	14.9 13.5 2.17 26.1 3.86	6.3 2.78 33.3 4.10	(59.5) 2.25 26.6 4.18	(27.7) 3.02 35.1 4.66	0.5 3.94 45.2 5.12 (0.3%) (4.6%)
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn Net asset value per ordinary share - £ Capital ratios Return on average total assets (2) Return on average total equity (3) Return on average ordinary shareholders equity(4)	14.9 13.5 2.17 26.1 3.86 0.2% 3.7% 4.0%	6.3 2.78 33.3 4.10 0.1% 2.0% 1.9%	(59.5) 2.25 26.6 4.18 (0.8%) (10.2%) (15.3%)	(27.7) 3.02 35.1 4.66 (0.2%) (2.9%) (4.0%)	0.5 3.94 45.2 5.12 (0.3%) (4.6%) (6.5%)
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn Net asset value per ordinary share - £ Capital ratios Return on average total assets (2) Return on average total equity (3) Return on average ordinary shareholders equity(4) Average total equity as a percentage of average total assets	14.9 13.5 2.17 26.1 3.86 0.2% 3.7% 4.0% 7.2%	6.3 2.78 33.3 4.10 0.1% 2.0% 1.9% 7.0%	(59.5) 2.25 26.6 4.18 (0.8%) (10.2%) (15.3%) 6.2%	(27.7) 3.02 35.1 4.66 (0.2%) (2.9%) (4.0%) 6.0%	0.5 3.94 45.2 5.12 (0.3%) (4.6%) (6.5%) 5.8%
Basic and diluted earnings/(loss) per ordinary share from continuing operations - pence (1) Share price per ordinary share at year end - £ Market capitalisation at year end - £bn Net asset value per ordinary share - £ Capital ratios Return on average total assets (2) Return on average total equity (3) Return on average ordinary shareholders equity(4)	14.9 13.5 2.17 26.1 3.86 0.2% 3.7% 4.0%	6.3 2.78 33.3 4.10 0.1% 2.0% 1.9%	(59.5) 2.25 26.6 4.18 (0.8%) (10.2%) (15.3%)	(27.7) 3.02 35.1 4.66 (0.2%) (2.9%) (4.0%)	0.5 3.94 45.2 5.12 (0.3%) (4.6%) (6.5%)

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.

Financial summary continued

Segmental summary income statements

	Personal	& Ulster Ulster	СРЕ	3			Central	
		Bank	Commercial	Private	RBS	NatWest	items	Total
2018	UK PB £m	Rol £m	Banking £m	Banking In £m	ternational £m	Markets £m	& other £m	RBS £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 Strategic costs	(2,428) (226)	(490) (22)	(2,288) (155)	(456)	(260)	(1,213) (238)	(224) (333)	(7,359) (1,004)
Litigation and conduct costs	(213)	(22) (71)	(44)	(21) (1)	(9) 9	(236)	(809)	(1,004)
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 Total income	940	183 604	1,605	214 678	64 389	847	293 451	4,146
Other expenses	5,282 (2,618)	(451)	4,679 (2,354)	(445)	(202)	1,050 (1,528)	451	13,133 (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 Other expenses	4,980 (2,819)	576 (457)	4,562 (2,515)	657 (511)	374 (169)	1,212 (2,084)	229 335	12,590 (8,220)
Strategic costs	(232)	(40)	(120)	(311)	(5)	(2,084)	(1,482)	(2,106)
Litigation and conduct costs	(622)	(172)	(435)	(1)	(0)	(550)	(4,088)	(5,868)
Operating expenses	(3,673)	(669)	(3,070)	(549)	(174)	(2,824)	(5,235)	(16,194)

Impairment (losses)/releases Operating profit/(loss)	(119) 1,188	113 20	(212) 1,280	3 111	(10) 190	(253) (1,865)	(5,006)	(478) (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) Third party customer funding rate Average interest earning assets	144,329	25,193	144,126	16,887	22,254	nm nm 37,856	nm nm 8,953	nm nm 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 Rol), 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.

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 Income from trading activities	2,357 1,507	2,455 634	2,535 974
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 £650 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 sa 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 wa 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 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.

Financial summary continued	Statuto	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

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• 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 Rol 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.

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 Rol 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.

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.

Financial summary continued

Summary consolidated balance sheet as at 31 December 2018

Assets	2018 £m	2017 £m	2016 £m
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 Rol, 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 Rol 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.

Segment performance

UK Personal Banking

	2018	2017	2016
Income statement	£m	£m	£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.

	2018	2017	2016
Capital and balance sheet	£bn	£bn	£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

Segment performance con

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.

Ulster Bank Rol

	2018	2017	2016	2018	2017	2016
Income statement	m	m	m	£m	£m	£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 - /£ Performance ratios				1.130	1.142	1.224
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.

	2018	2017	2016	2018	2017	2016
Capital and balance sheet	bn	bn	bn	£bn	£bn	£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)	(8.0)	(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

Segment performance continue	lec	t
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2018 compared with 2017

- Ulster Bank Rol 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 Rol 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).

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 continue

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
litiç	gation and conduct costs, and restructuring costs, operating profit of £935 million, was £100 million, or 5.4%, higher than 2016, reflec	ting lower
ор	erating 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%
	22.12		
	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 accets	22.0	20.2	10.0
Total assets	19.8	20.3 21.5	18.6 17.0
Assets under management (2)			
Customer deposits	28.4 50%	26.9 50%	26.6 46%
Loan:deposit ratio			
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.
investment income. Net interest margin increased by 3 basis points as higher deposit income was partially onset 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 not impairment valence of CC million levels valente a COm valence in O.4.2010 due to data quality improvements
• 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.

- 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

	2018	2017	2016
Income statement	£m	£m	£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%
	2018	2017	2016
Capital and balance sheet	£bn	£bn	£bn
Loans to customers (amortised cost)		2011	2011
- 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

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 reon 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 the deposit book.	s on
• 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.	
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Business review

Segment performance continued

NatWest Markets

	2018	2017	2016
Income statement	£m	£m	£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%
	2018	2017	2016
Capital and balance sheet	£bn	£bn	£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 pe	rformance	continued
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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	2017	2016
	£m	£m	£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

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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

Remuneration Report at a glance **Directors**

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 predominantly through holding shares, both LTI awards.

Aligns executives with shareholders during and after employment.

Reduced complexity and quantum, in line with the Executive Remuneration Working Group and Government announcements on executive pay.

directors would reasonably be expected to achieve, encouraging safe and secure growth.

Performance assessed on factors that executive The maximum value of LTI award is smaller and Reflects emerging investor guidelines with their we have significantly increased the value of shares that executive directors need to hold.

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.

Chief Executive Chief Financial Officer (from 2019) Summary of pay construct £1,000,000 £750,000 Base salary Fixed Share Allowance Fixed pay 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

	 Pre-grant and pre-vest performance ass underpins. 	essments along with risk and stakeholder
	Vests in equal amounts between years to	hree to seven after grant.
Vesting period and conditions	12 months retention period following ea	ach 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

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xecutive dir	actors who	have le	aft/inined	durina tl	10 VOST

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 t seven years and retention periods in line with regulatory requirements.	to appointment to the Board, will be subject to deferral over
	70

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.

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

Pension

retirement and long-term savings.

To encourage planning for Provision of a monthly cash pension allowance based on a percentage of salary. Opportunity to use the cash to participate in of 35% of salary for existing executive directors a defined contribution pension scheme.

While the 2017 policy allows for pension funding 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.

- Chief Executive 35% of salary
- Chief Financial Officer 10% of salary

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.

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;
- Chief Executive 175% of salary.

time of grant is capped at:

· Chief Financial Officer - 200% of salary.

The maximum award for current directors at the

Delivery in shares with the ability to apply malus adjustments and clawback further supports longer-term alignment with shareholders interests.

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.

Prior performance will be taken into account when determining the value of the award at the time of grant.

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 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 to hold a significant shareholding over the long-term.

Unvested shares from LTI awards will count on a net of tax basis directors build and continue 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.

Remuneration Policy Directors

Remuneration for the Chairman and non-executive directors

Element of pay

Operation

Maximum potential value

Fees

Fees are paid monthly in cash and reviewed regularly. Additional fees may The rates for the year ahead are set out in the be paid for new Board Committees provided these are not greater than fees payable for the existing Board Committees.

annual report on remuneration.

To reflect the required skills, experience and time commitment.

> No variable pay is provided so that the Chairman and non-executive directors can maintain appropriate independence.

Other than in exceptional circumstances, fees will not increase by more than 15% over the course of the policy.

Benefits

benefits in line with market practice.

Reimbursement of reasonable out-of-pocket expenses. The Chairman and The value of the private medical cover provided to non-executive directors are entitled to travel assistance in connection with the Chairman and any other benefits will be in line To provide a level of company business including the use of a car and driver. RBS will meet the with market rates and disclosed in the annual cost of any tax due on the benefit. Other benefits may be offered in line with market practice.

report on remuneration.

The Chairman receives private medical cover.

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

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.

arrangements

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.

Remuneration Policy Directors

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

Workforce remuneration and alignment with culture

Description of provision

Remuneration Committee to and related policies, and the alignment of incentives and rewards with culture, taking these into account when setting the policy for executive director remuneration.

RBS position

The Committee already considers papers on the broader employee proposition, for example, review workforce remunerationthe 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 for post-employment shareholding requirements encompassing both unvested and vested shares.

Under the current policy, executive directors automatically retain a significant number of should develop a formal policy 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 The pension contribution rates The FRC guidance recognises that it may not be appropriate to reduce the pension provision for executive directors should for existing directors. However, good practice is for the rates to move over time to be aligned rates be aligned with those available with those of the wider workforce. to the 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.

of malus and clawback

Discretion and use Remuneration schemes and 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 policies should enable the use 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.

		Vesting at minimum	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%
	Vesting between 0%			CET1 ratio: 16.2%	100%		
CET1 ratio (12.5%) Cost:income ratio	Cost:income ratio tar			Cost:income ratio: 72%	0%	50%	12.5%
Split across advocacy, trust and employee engagement Net Promoter Score (NPS) (7.5%) Net Trust Score (NTS) (5%) Engagement Index (EI)	NPS target: Gap to number 1 of 2.3 NTS target: NatWest 63, RBS 50			NPS Gap to number 1 of 18.7 NTS: NatWest 64, RBS 25 EI: 4 points above GFS norm	0% 50%	60%	15%
(12.5%) 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	1,771,948			
Outcome following performance assessment (2	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		2017 LTI award current assessment
Economic Protit	Economic Profit (total Bank)		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			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 &	C:I ratio is broadly in range for vesting
Sale & Secure Bank	CET1 ratio	12.5%	CET1 ratio target of >= 13%	People categories will be	CET1 ratio is in range for full vesting
	Advocacy	7.5%	Significant progress to Number 1 in our chosen segments for customer	qualified by Committee discretion taking into account the margin by which targets	Some segments on track but overall behind target range
Customers & People	Trust	5%	below).	have been missed or exceeded and any other relevant factors	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 is 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 The awards were subject to a pre-grant
Ross McEwan	7 March 2018	1,575	592,328		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
Ewen Stevenson	7 March 2018	1,440	541,557		framework is also set out overleaf.

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 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 Reasonable performance against RoTE budget with a target of -1%.	Pre-grant assessment Good financial performance for 2018. RoTE at 4.8% exceeded the target.
Financial & Business Delivery	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. 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.	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. 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 e 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.

Stakeholder	Achieve planned progress towards becoming number 1 for customer service, trust and advocacy by 2020 in chosen customer segments and brands. Year-on-year improvement in engagement and	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. Engagement score increased by three points and the leadership
	leadership indices, with a one point increase in each.	rincreased by two points since 2017, exceeding the targets. The Culture index had continued to improve with a three point increase since 2017, exceeding the target. Satisfactory progress had been made. As at Q3, there had been a
•	Progress towards target of at least 30% women in senic roles by 2020 in each franchise and function.	n7% 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 Achieve planned RoTE targets for Group and NatWest Holdings (NWH Ltd).					
Financial & Business Delivery		Run a safe and secure bank.	Achieve CET1 ratio targets for Group and NWH Ltd, with appropriate repatriation of capital to the Group.					
		Improve or maintain control environment.	Group and NWH Ltd achievement/maintenance and embedding of desired control environment rating.					
	Risk & Control	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.					
		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).					
	Customer & Stakeholder	Build a strong internal customer service.	Achievement of Group and NWH Ltd targets for internal NPS and Core Service Behaviour scores.					
		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.					
	People & Culture	Improve diversity across our leaders to create a	Progress on the number of women in senior roles across the top three layers of the Bank.					
		more mature, inclusive culture.	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.

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)

Chairman (composite fee Howard Davies (1))									(Fee 2018 £000 750	2017 £000 750	2018 £000 11	2017 £000 11	Tot 2018 £000 761	2017 £000 761
Non-executive		Group		Group	Group	Group			GRGUB			1 00					
	Board	N&G		RemCo	BRC	SBC	TIC	SID	BOC	BOC	Other	2018	2017	2010		2018	
directors (2)	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
Frank Dangeard (3) Alison Davis	60 80			10 30	12	30	22 60				148	252 200	135 167	4 26	3 30	256 226	138 197
Patrick Flynn (4) Morten Friis Robert Gillespie	46 80 80	15	19 31	60	19 31 19	30	17		15			101 142 219	148 197	9 50 8	42 11	110 192 227	190 208
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) Baroness Noakes Mike Rogers Mark Seligman	80 80 80 80	15 15	62 31	30 30	31 62	48		30	30 15 3	13 13	53	284 216 158 171	216 196 137 68	31 18 12 5	23 16 16 4	315 234 170 176	239 212 153 72
Lena Wilson (3)	80	13		50		28	17	50	J	10	3	128	00	20		148	72

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.

Group SBC

Sustainable Banking Committee

Key to table: Group N&G Technology and Innovation Committee Senior Independent Director Group Nominations and Governance Committee TIC

GAC **Group Audit Committee** SID

Board Oversight Committee for the GRG Group RemCo Group Performance and Remuneration Committee **GRG BOC**

business areas

Board Oversight Committee for the Ulster Bank Group BRC **Board Risk Committee** UBI DAC BOC

Ireland business

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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	LTI award following pre-grant assessment over	
				100% of salary (1)	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)

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

£30,000

Member Chairman

Fees for RBSG Board Committees (1)

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 (a)	udited)
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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		Howard Davies	Frank Alison Dangeard Davis			Penny Yasmin Hughes Jetha			Mike Rogers	Mark Seligman	Lena Wilson
					(4)							
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	2,502,051	1,102,272	00,000	3,000 20,000	20,000	23,000	302 20,000	12,001	41,000	20,000	20,000	0,000
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 ow	ned outright		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	takan	performance assessment, deferral	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 plan(sudited)

Long-term incentive awards

		Awards held							
			lapsed			^	warda bald at		
		at		Award	for		wards held at		
	Year of	1	Awards	price p	erformance	Awards	31	Expected	vesting
	award January 2018		granted	£a	ssessment	forfeited De	ecember 2018	dates	
Ross McEwan		•	J						
	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 1,647	2010 3,687	2011 1,646	2012 1,646	2013 (1) 1,235 (SH)	2014	2015	2016	2017	2018
Total remuneration (£000s) (1)	•	•	,		393 (RM)	1,878	3,492	3,702	3,487	3,578
Annual bonus against max. opportunity LTI vesting rates against max.	0%	85%	0%	0%	0%	n/a	n/a	n/a	n/a	n/a
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	2017	
	£m	£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.

Pay	ratios		Remuneration values		
Methodology		Calculation			

Financia	I	P25	P50	P75	Chief	Y25	Y50	Y75
Year		(Lower	(Median)	(Upper	Executive	(Lower	(Median)	(Upper
		Quartile)		Quartile)		Quartile)		Quartile)
2018	A (see notes)	143:1	97:1	56:1 ^{total} remuneration	£3,577,649	£24,946	£36,727	£63,825
	salarv onlv	44:1	30:1	19:1salarv onlv	£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.

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	f the principal	l activity of t	he (Committee	in 2	018
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TI . I						
The tasks that the Committee undertook	during the	vear included	l reviewing and	where annro	nriate	annroving.
The tasks that the Committee undertook	auring the	y car intolaaca	i i c vic wii ig alia	, which apple	priate,	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.
Perfo	rmance evaluation
	ommittee has considered the findings of the annual review of the effectiveness of the Committee. This year the evaluation process was cted externally by Independent Board Evaluation.
The C decision	ommittee 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. ommittee was encouraged to take a broad view of its agenda and to communicate as freely as possible with the Board so that remuneration ons 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 iittee during 2019.
Advis	ers to the Committee
and th	vaterhouseCoopers LLP (PwC) was first appointed as remuneration adviser by the Committee in 2010, following a review of potential advise e services provided. An annual review of the quality of advice and the associated level of fees was undertaken during 2018, following which ammittee 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 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	ie to	nrovida :	range	of flavible	and cor	nnatitiva	hanafite
THE DUIDOSE	15 10	DIOVIGE 6	a ranue (oi liexible	and cor	nbennve	Denems.

	ra		

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.

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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.

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.	
respe	ariable pay awarded to MRTs from 1 January 2015 onwards is subject to clawback for seven years from the date of grant. For awards m ct of the 2016 performance year onwards, this period has been extended to ten years for executive directors and other Senior Managers the Senior Managers Regime where there are outstanding internal or regulatory investigations at the end of the normal seven year clawd.	i
Circu	mstances 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 a	bove list of circumstances is not exhaustive and RBS may consider any further circumstances that it feels appropriate.	
includ	g 2018 a number of issues and events were considered under the accountability review framework. The outcomes covered a range of ac ling: reduction and forfeiture of unvested awards through malus; dismissal with forfeiture of unvested awards; and suspension of awards ng further investigation.	
		9

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

	Senior	Other	
Number of beneficiaries	mgmt	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:

	Senior	Other	
Aggregate remuneration	mgmt	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.

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

Control Functions Cash remuneration Deferred bonds Deferred shares		0.02 0.45 1.08 1.55	0.02 0.45 1.08 1.55
Other Business Areas Cash remuneration Deferred bonds Deferred shares		0.05 1.18 3.30 4.53	0.05 1.18 3.30 4.53
Total	2.06	97.71	99.77
Long-term incentives Number of beneficiaries	Senior mgmt 9	Other MRTs	Total 9
Executive Directors Non-Executive Directors	£m 1.65	£m	£m 1.65
PBB CPB RBSI	1.10 1.50		1.10 1.50
NatWest Markets Corporate Functions Control Functions	1.50 3.58		1.50 3.58
Other Business Areas Total	1.10 10.43		1.10 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.

	Senior	Other	
Category of deferred	mgmt	MRTs	Total
remuneration	£m	£m	£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 requ	Where required, remuneration is constrained within the limit of variable to fixed remuneration in accordance with EBA rules.			
Definitions				
Deminions				
PBB	Personal & Business Banking			
СРВ	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.

	Senior	Other	
Ratio of fixed to variable	mgmt	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

	Number of employees
million	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

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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.	
we e	oloyees who earned total remuneration of over 1 million in 2018 represent just 0.1% of our employees. This number reduces to 67 employe exclude pension and benefit funding. These employees include those who manage major businesses and functions with responsibility for ificant assets, earnings or areas of strategic activity and can be grouped as follows:	es if
• T	he Chief Executives responsible for each area and their direct reports.	
• E	imployees managing large businesses within a franchise.	
	ncome generators responsible for high levels of income including those involved in managing trading activity and supporting clients with mor plex financial transactions, including financial restructuring.	е
• т	hose responsible for managing our balance sheet and liquidity and funding positions across the business.	
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Capital and risk management

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Presentation of information

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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.



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.

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.
- 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.

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.

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 Al. 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 toquantify, 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.

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.

Risk management framework continued

Туре	Description
	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.
	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

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

- Designed to assess the resilience of major UK banks to tail risk events. The severity of the test is related a general macro financial downturn. to policymakers assessments of risk levels across markets and regions.
 - Designed to evaluate the impact, over three years, of

Scenario

vears, 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.

A static balance sheet assumption was made across the period of stress and therefore mitigating actions such as The 2018 stress test examined the impact, over five 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 The 2018 EBA stress test did not contain a reached a low point of 9.6%, significantly above the hurdle pass/fail threshold. rate of 7.3%.
- 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

- On an IFRS 9 transitional basis, RBS s CET1 ratio On an IFRS 9 non-transitional basis, the CET1 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.

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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, 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 Rol.
- 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, 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.

Assess capital adequacy

- Shorter term forecasts are developed frequently in response to actual performance, changes in internal and external business environment and to manage risks and opportunities.
- 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.

- 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

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- 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, 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:

- 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 is 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 Minimum ratio	CET1 2.4375%	Total Tier 1 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%

Net stable funding ratio (NSFR) (1) From 1 January 2019

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, 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.

	20	18	20	17
	End-point	PRA transitional	End-point	PRA transitional
	CRR basis (1)	basis	CRR basis (1)	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	20	18	20	17
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, 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.

	20	018	201	7
		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 Qualifying instruments and related share premium subject to	4,051	4,051	4,041	4,041
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 Tier 2 capital	182	1,565	369	1,876
	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	AT1	Tier 2	Total
	£m	£m	£m	£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, 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, 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	£bń	£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) of which: RBSG operating subsidiaries (opcos)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
(0,000)	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 CRR leverage exposure				188.7 644.5				200.9 679.1

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, 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		Roll	l-off profile			
	December			-			
RBSG	2018	H1 2019	H2 2019	2020	2021	2022 & 2023	2024 & later
- amount (£m) - weighted average rate spread (bps)	16,830 205	535 129	781 283	2 162		7,037 224	8,474 187
NWM Plc							
- amount (£m) - weighted average rate spread (bps)	16,523 102	3,186 13	3,239 177	4,704 123	2,066 91	2,022 80	1,306 117
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	0.5	4.4	343	90	000
NWM N.V. (£m) UBI DAC (£m)	668 76	147	65	11		106	339 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.

		Counterparty			
	Credit risk	credit risk	Market risk	Operational risk	Total RWAs
	£bn	£bn	£bn	£bn	£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.
- 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, liquidity and funding risk continu

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 Central
Bank Commercial Private NatWest items

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

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 Rol 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 Rol 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, 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	
	£m	£m	£m	£m	£m	
Cash and balances at central banks Central and local government bonds	83,781	59,745	11,005	93,657	91,377	
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 Notes:	225,039	186,340	17,388	209,892	203,733	

⁽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.

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

⁽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.

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.

	Short-term less than 1 year £m	2018 Long-term more than 1 year £m	Total £m	Short-term less than 1 year £m	2017 Long-term more than 1 year £m	Total £m
Personal and corporate deposits	ZIII	LIII	LIII	ZIII	2.111	ZIII
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
Sorporate (2)	309,868	1,641	311,509	301,022	2,358	303,380
Financial institutions deposits	000,000	1,041	011,000	001,022	2,000	000,000
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
	33,330	10,423	09,907	33,704	20,000	00,430
Debt securities in issue						
Commercial papers (CP s) and certificates of	3,157		3,157	4,637		4,637
deposits (CD S)						
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
Corporate	30,360		30,360	38,421		38,421
	30,300		50,500	00,421		00,421
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 coverage of GETT capital Funding as a % of leverage exposure			72%			69%
Funding as a % of funded assets			83%			81%
			75%			50%
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, 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.

	Less			Bar 6	nking activition	es		More		Trading	
	than			months				than		rrauring	
	1 month	1-3 months	3-6 months	- 1 year	Subtotal	1-3 years	3-5 years	5 years	Total	activities	Total
2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Central bank balances Trading assets	88,897				88,897				88,897	75.119	88,897 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 NBFI	26,260 3,807	4,499	4,118	7,868 3,795	42,745	27,413 4,138	21,159 2,031	20,417 1,242	111,734		111,734
Other financial assets	3,807 1,252	1,376 3,165	1,158 2,473	3,795 4,754	10,136 11,644	13,904	10,630	21,669	17,547 57,847	1.638	17,547 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
Total illiancial assets	140,000	11,037	11,333	20,241	101,121	00,505	32,032	104,213	473,277	207,000	001,102
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 Trading liabilities	3,066				3,066				3,066	72,350	3,066 72,350
Derivatives		181	306		487	1.062	416	978	2,943	125,954	
Other financial liabilities	202	1.386	2,499	4,153	8,240	9,542	10.536	11,414	39,732	123,334	39,732
CPs and CDs	173	1,128	955	901	3,157	3,342	10,550	11,414	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	•		.,	3,1.10	.,07 .	3,145	. 0,000	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

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, 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) Loans to customers Greater Contractual maturity (1) Customer accounts Greater								Net surplus/(gap) Greater				Behavioural maturity Net surplus/(gap) Greater			
	Less				Less				Less				Less			
	than 1	1-5	than		than 1	1-5	than		than 1	1-5	than		than 1	1-5	than	
	year	years	5 years	Total	year	years	5 years	Total	year	years	5 years	Total	year	years	5 years	Total
2018	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn
UK PB	11	34	104	149	145	1		146	134	(33)	(104)	(3)	(12)	1	8	(3)
UB Rol	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	00	02	1.47	202	262	4		267	200	(90)	(1.47)	4.4	(C)	24	26	4.4
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 lending red	ne net customer funding surplus has increased by £5billion during 2018 to £49billion driven by £1billion deposit growth and £4billion uction
• Cu	ustomer deposits and customer loans are broadly matched from a behavioural perspective.
	ne net funding surplus in 2018 is concentrated in the longer dated buckets, reflecting the stable characteristics of customer deposits and t is behaviourally shorter dated.
Encumbran	nce (audited)
to encumbr through ope	ates the extent to which assets can be financed in a secured form (encumbrance), but certain asset types lend themselves more readily rance. The typical characteristics that support encumbrance are an ability to pledge those assets to another counterparty or entity eration of law without necessarily requiring prior notification, homogeneity, predictable and measurable cash flows, and a consistent and derwriting and collection process. Retail assets including residential mortgages, credit card receivables and personal loans display many atures.
RBS catego	orises its assets into three broad groups, those that are:
Already end agreements	cumbered and used to support funding currently in place through own-asset securitisations, covered bonds and securities repurchase s.
Pre-position	ned with central banks as part of funding schemes and those encumbered under such schemes.
	ly encumbered. In this category, RBS has in place an enablement programme which seeks to identify assets capable of being and to identify the actions to facilitate such encumbrance whilst not affecting customer relationships or servicing.
Programme	es to manage the use of assets to support funding actively are established within UK DoLSub, UBI DAC and NatWest Markets Plc.
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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	s a result of trans with	actions	Pre-positioned	Unencumbered assets not pre-positioned					
	counterparties other than central banks & Covered SFT,			& encumbered assets held	with central banks					
	debts &	Derivatives		at central	Readily	Other	Cannot			
		and similar	Total							
	securitisations	(2)	(3)	banks (4)	available	available	be used	Total	Total	
2018	(1) £bn	£bn	£bn	£bn	` '	(6) £bn	(7) £bn	£bn	£bn	
Cash and balances at		6.7	6.7		82.2			82.2	88.9	
central banks										
Trading assets		49.1	49.1			1.3	24.7	26.0	75.1	
Derivatives							133.3	133.3	133.3	
Settlement balances Loans to banks - amortised	0.4	1.0	1.4		6.6	0.4	2.9 4.5	2.9 11.5	2.9 12.9	
cost	0.4	1.0	1.4		0.0	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	
- Rol	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 repotransactions as collateral for repos.

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 Rol, 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.

Other

For Wholesale, the four formal frameworks used and their basis for classification are detailed in the following table.

Basis for classification

Measure

Single name concentration Exposure

Sector Country

Product and asset class

Risk based on loss given default for a given probability of default based on economic capital and other qualitative factors Probability of default of a sovereign and average loss given default

Risk based on heightened risk characteristics

Risk controls

Framework

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.

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 or porates, 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.

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 toneet 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 tomaturity.

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 scredit 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.

Credit risk continued

Appropriate corrective action is taken when circumstances emerge that may affect the customer sability 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 sterms.

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 Rol, where forborne loans which result in an economic loss form a separate risk pool and are subjected to specific provisioning treatments.

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).

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.

	ıotai
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.

T-4-1

- UK PBB and Ulster Bank Rol 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 Theassets 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.

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 Rol 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.

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 Rol.

• Wholesale the approach to MES is at 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	8.0	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	8.0	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.

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.

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).
- o 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:

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 p	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	(8.0)	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.

Credit risk continued

Economic sensitivity analysis (restated: see Note 4 for details)

		al position			Common scenarios (3)							
	-	1 and Sta		I	Downside 2			25% PD increase			ete scena	rios (3)
		of which				Exposure			Exposure	HPI (4)/	TTC PD	Exposure
		in Stage	ECL	Poten	tial ECL	in	Potent	ial ECL	in	noten	(5) tial ECL	in
	Exposure	2	provision(2)		uplift	Stage 2		uplift	Stage 2	•	uplift	Stage 2
	£bn	%	£m	£m	%	%	£m	%	%	£m	%	%
UK PB Of which:	148.6	9.0	528.4	171.0	32.4	11.4	156.2	29.6	10.3			
mortgages	137.7	7.3	80.9							5.5	6.8	7.3
Ulster Bank Rol Personal and business												
banking <i>Of which:</i>	12.8	11.9	100.0	60.5	60.5	24.5	24.4	24.4	17.3			
mortgages	12.2	11.4	85.5							6.1	7.2	11.7
Wholesale Total	268.8 430.2	4.3 6.1	394.4 1,022.8	94.6 326.1	24.0 31.9	8.2 9.8	104.4 285.0	26.5 27.9	5.5 7.5	106.3	31.9	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 Rol 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 Rol.
- (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 Rol 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 Rol 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 Rol. 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 Rol 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.

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.

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.

				Ulster	Commercial	Private			Central items	
				Bank						
04 Danambar 0040 (4)			UK PB	Rol	Banking	Banking	RBSI	NWM	& other	Total
31 December 2018 (1) Loans - amortised cost			£m	£m	£m	£m	£m	£m	£m	£m
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
3			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	ie (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
LOL Glarge (4)										
ECL loss rate - annualis	sed (basis point	ts)	22.60	6.75	14.27	(4.14)	(1.45)	(98.60)	(4.29)	12.45
O ()	sed (basis point	ts)	22.60 445	6.75 372	14.27 572	(4.14) 7	(1.45) 9	(98.60) 89	(4.29)	12.45 1,494
ECL loss rate - annualis	sed (basis point	ts)						, ,	(4.29)	_
ECL loss rate - annualis	sed (basis point	,	445	372	572		9 Central	, ,	Balances	_
ECL loss rate - annualis	sed (basis point	Ulster Bank			572		9	, ,	, ,	_
ECL loss rate - annualis	sed (basis point	Ulster	445	372	572		9 Central	, ,	Balances at	_
ECL loss rate - annualis		Ulster Bank	445 Commercial	372 Private	572 RBSI	7	9 Central items	89	Balances at central	1,494
ECL loss rate - annualis Amounts written-off	UK PB	Ulster Bank Rol	445 Commercial Banking	372 Private Banking	FRBSI £m	NWM	9 Central items	89 Total	Balances at central banks	1,494 Total
ECL loss rate - annualis Amounts written-off 1 January 2018 (1) Financial assets	UK PB £m	Ulster Bank Rol £m	445 Commercial Banking £m 97,625 9,776	372 Private Banking £m 12,755 333	572 RBSI £m 7,791 307	NWM £m	Central items & other £m	Total £m	Balances at central banks £m	1,494 Total £m
ECL loss rate - annualis Amounts written-off 1 January 2018 (1) Financial assets Stage 1	UK PB £m 132,418 13,204 2,406	Ulster Bank Rol £m 19,055 2,347 3,669	445 Commercial Banking £m 97,625 9,776 4,264	372 Private Banking £m 12,755 333 324	572 RBSI £m 7,791 307 119	NWM £m 11,762 995 501	Gentral items & other £m 52,523 10	Total £m 333,929 26,972 11,283	Balances at central banks £m 96,566 5	1,494 Total £m 430,495 26,977 11,283
ECL loss rate - annualis Amounts written-off 1 January 2018 (1) Financial assets Stage 1 Stage 2	UK PB £m 132,418 13,204	Ulster Bank Rol £m 19,055 2,347	445 Commercial Banking £m 97,625 9,776	372 Private Banking £m 12,755 333	572 RBSI £m 7,791 307 119	NWM £m 11,762 995	Gentral items & other £m 52,523	Total £m 333,929 26,972	Balances at central banks £m	1,494 Total £m 430,495 26,977
ECL loss rate - annualis Amounts written-off 1 January 2018 (1) Financial assets Stage 1 Stage 2	UK PB £m 132,418 13,204 2,406	Ulster Bank Rol £m 19,055 2,347 3,669	445 Commercial Banking £m 97,625 9,776 4,264	372 Private Banking £m 12,755 333 324	572 RBSI £m 7,791 307 119	NWM £m 11,762 995 501	Gentral items & other £m 52,523 10	Total £m 333,929 26,972 11,283	Balances at central banks £m 96,566 5	1,494 Total £m 430,495 26,977 11,283
1 January 2018 (1) Financial assets Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 1	UK PB £m 132,418 13,204 2,406 148,028	Ulster Bank Rol £m 19,055 2,347 3,669 25,071	445 Commercial Banking £m 97,625 9,776 4,264 111,665	372 Private Banking £m 12,755 333 324 13,412	7,791 307 119 8,217	NWM £m 11,762 995 501 13,258	9 Central items & other £m 52,523 10 52,533	Total £m 333,929 26,972 11,283 372,184	Balances at central banks £m 96,566 5	Total £m 430,495 26,977 11,283 468,755
1 January 2018 (1) Financial assets Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 1 Stage 2	UK PB £m 132,418 13,204 2,406 148,028	Ulster Bank Rol £m 19,055 2,347 3,669 25,071	445 Commercial Banking £m 97,625 9,776 4,264 111,665	372 Private Banking £m 12,755 333 324 13,412	7,791 307 119 8,217	NWM £m 11,762 995 501 13,258	9 Central items & other £m 52,523 10 52,533	Total £m 333,929 26,972 11,283 372,184 261 621	Balances at central banks £m 96,566 5	1,494 Total £m 430,495 26,977 11,283 468,755 262 621
1 January 2018 (1) Financial assets Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 1	UK PB £m 132,418 13,204 2,406 148,028 110 315 825	Ulster Bank Rol £m 19,055 2,347 3,669 25,071 29 106 1,054	445 Commercial Banking £m 97,625 9,776 4,264 111,665 92 143 1,441	372 Private Banking £m 12,755 333 324 13,412 18 9 27	572 RBSI £m 7,791 307 119 8,217 5 5 28	NWM £m 11,762 995 501 13,258 2 42 190	9 Central items & other £m 52,523 10 52,533	Total £m 333,929 26,972 11,283 372,184 261 621 3,565	Balances at central banks £m 96,566 5 96,571	1,494 Total £m 430,495 26,977 11,283 468,755 262 621 3,565
1 January 2018 (1) Financial assets Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 1 Stage 2 Stage 3	UK PB £m 132,418 13,204 2,406 148,028	Ulster Bank Rol £m 19,055 2,347 3,669 25,071	445 Commercial Banking £m 97,625 9,776 4,264 111,665	372 Private Banking £m 12,755 333 324 13,412	572 RBSI £m 7,791 307 119 8,217 5 5 28	NWM £m 11,762 995 501 13,258	9 Central items & other £m 52,523 10 52,533	Total £m 333,929 26,972 11,283 372,184 261 621	Balances at central banks £m 96,566 5	1,494 Total £m 430,495 26,977 11,283 468,755 262 621
1 January 2018 (1) Financial assets Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 3 ECL provisions	UK PB £m 132,418 13,204 2,406 148,028 110 315 825	Ulster Bank Rol £m 19,055 2,347 3,669 25,071 29 106 1,054	445 Commercial Banking £m 97,625 9,776 4,264 111,665 92 143 1,441	372 Private Banking £m 12,755 333 324 13,412 18 9 27	572 RBSI £m 7,791 307 119 8,217 5 5 28	NWM £m 11,762 995 501 13,258 2 42 190	9 Central items & other £m 52,523 10 52,533	Total £m 333,929 26,972 11,283 372,184 261 621 3,565	Balances at central banks £m 96,566 5 96,571	1,494 Total £m 430,495 26,977 11,283 468,755 262 621 3,565
1 January 2018 (1) Financial assets Stage 1 Stage 2 Stage 3 ECL provisions (2) Stage 1 Stage 2 Stage 3	UK PB £m 132,418 13,204 2,406 148,028 110 315 825	Ulster Bank Rol £m 19,055 2,347 3,669 25,071 29 106 1,054	445 Commercial Banking £m 97,625 9,776 4,264 111,665 92 143 1,441	372 Private Banking £m 12,755 333 324 13,412 18 9 27	572 RBSI £m 7,791 307 119 8,217 5 5 28	NWM £m 11,762 995 501 13,258 2 42 190	9 Central items & other £m 52,523 10 52,533	Total £m 333,929 26,972 11,283 372,184 261 621 3,565	Balances at central banks £m 96,566 5 96,571	1,494 Total £m 430,495 26,977 11,283 468,755 262 621 3,565

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.

		Ulster Bank	Commercial	Private			Central items	
	UK PB	Rol	Banking	Banking	RBSI	NWM	& other	Total
2017	£m	£m	£m	£m	£m	£m	£m	£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	0.7	5.5	1.3	0.2	0.4	0.8		1.2
customers								
Impairment losses/(releases)	207	60	390	6	3	(137)	1	530
Amounts written-off	424	124	483	4	6	167	2	1.210

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 Rol 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 Stage 2 (2)	loans		ECL provisions (3) 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 Ulster Bank Rol	134,836 17,822	12,521 1,968	725 112	13,245 2,080	1,908 2,308	149,989 22,210	101 35	382 103	48 11	430 114	597 638	1,128 787
Personal (4) Wholesale Commercial	11,059 6,763	1,353 615	105 7	1,458 622	2,153 155	14,670 7,540	13 22	73 30	11	84 30	530 108	627 160
Banking Private Banking	91,034 13,750	9,087 380	430 151	9,518 531	2,448 225	103,000 14,506	124 13	186 5	8 5	194 10	942 20	1,260 43

Personal	10,803	183	25	208	203	11,214	5	5 3		3	17	25
Wholesale	2,947	197	126	323	22	3,292	8	3 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	2 458	59	517	1,158	1,797
Wholesale	126,432	10.558	568	11,126	3.367	140,925	163	3 233	13	246	1,162	1,571
Balances at central	-, -	-,		, -	-,	-,					, -	,-
banks	87,181					87,181	2	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 a	assets				ECL prov	visions (3	3)	
		Stage	1	Stage 2	Stage 3	To	otal	Stage 1	Stage 2	Stag	ge 3	Total
1 January 2018 (1)		£	2m	£m	£m	:	£m	£m	£m		£m	£m
UK PB		132,4	18	13,204	2,406	148,0)28	110	315		825	1,250
Ulster Bank Rol		19,0	55	2,347	3,669	25,0)71	29	106	1,	054	1,189
Commercial Banking	g	97,6	25	9,776	4,264	111,6	665	92	143	1,	441	1,676
Private Banking		12,7	55	333	324	13,4	12	18	9		27	54
RBS International		7,7	91	307	119	8,2	217	5	5		28	38
NatWest Markets		11,7	62	995	501	13,2	258	2	42		190	234
Central items & other	er	52,5	23	10		52.5	533	5	1			6

11,283

11,283

372,184

96,571

468,755

261

262

621

621

3,565

3,565

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

333,929

96,566

430,495

26,972

26,977

Total financial assets excluding

balances at central banks Balances at central banks

Total financial assets

4,447

4,448

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 co	overage				ECL	
		Sta	ge 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 Rol	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)	
Wholesale	0.27	1.02	3.97	2.17	13.64	0.55	(-)	(01.1)	5 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	0.10	2.80	5.02	2.92	30.06	1.05	398	12.5	1,494
balances at central	0.10	2.00	0.02		00.00	1.00	000	12.0	1,101
banks									
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
rotarioario	0.00	2.00	0.02	2.02	00.00	0.00	000	0.0	1,404
						CL provisions	coverage		
			0, 4	00.1		2 (2,3)		0, 0	
4.1. 0040 (4)			Stage 1	<30 l		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
- Rol 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 Rol.

Key points

- The UK PB and Ulster Bank Rol franchises accounted for the vast majority of Personal provisions. In Ulster Bank Rol, 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.

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.

		Pers					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		319.800
- UK	150,233	4,112	9,117	163,462	33,855	60,657	11.611	3,089		272,674
- Rol	14,350	104	233	14.687	1.114	3,733	392	2,497	7.736	22,423
- Other Europe	102	704	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	165,081	4,216	9,578	178,875	36,707	72,240	25,011	6,967		319,800
(2,3)	100,001	7,210	0,070	170,070	00,707	72,240	20,011	0,007	140,020	010,000
- AQ1-AQ4	104.989	35	1.040	106.064	16.133	22.587	22.397	6.802	67 919	173.983
- AQ5-AQ8	<i>55,139</i>	3.990	7,736	66,865	18.815	47,651	2,574	161	,	136.066
- AQ9	1,287	69	239	1,595	74	359	5	,,,	438	2.033
- AQ10	3.666	122	<i>563</i>	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	, -
- Stage 1	149,760	2,851	6,942	159,553	33,145	61,844	24,502	6,941	,	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	,	4,216	9,578	178,875	36,707	72,240	25,011	6,967	-,	319,800
(4,5)	. 55,55	.,	0,0.0	,	00,707	,	_0,0	0,00.	0,020	0.0,000
- 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	8	2	3	5	3	3	4	3	3	4
(years)										
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	839	230	728	1,797	588	941	41	1	1,571	3,368
geography				•						•
- UK	237	227	707	1,171	518	615	27	1	1,161	2,332
- Rol	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	<i>38</i>	61	122	43	107	12	1	163	285
- Stage 2	150	120	247	<i>517</i>	39	200	7		246	<i>763</i>
- 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
- Rol	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.

Credit risk Banking activities:ontinued

Portfolio summary sector analysis (audited)

		Pers Credit	onal Other			١	Wholesale					
	Mortgages	cards	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	,	319,800	,	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 - Loan	13,228	16,613	12,229	42,070	16,044	52,730	28,761	29,277	126,812	168,882		
commitments - Financial	13,228	16,613	12,229	42,070	15,335	48,569	26,684	29,276	119,864	161,934		
guarantees Off-balance sheet					709	4,161	2,077	1	6,948	6,948		
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 expo	sure by	stage

	Total credit			Stage 2 (2,3)			ECL
			<30	>30			
	exposure	Stage 1	DPD	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
Rol 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	<i>56</i>	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	<i>55</i>	1,036	105	115
Sovereign	49,380	49,026	<i>353</i>		<i>353</i>	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) Rol mortgages which are not currently considered defaulted for capital calculation purposes for Rol 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 Rol were reported within other personal but at 31 December 2018 they are reported separately.

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.

	FI	Property	Sovereigns	Other corporate	Total
2018	£m	£m	£m	£m	£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 Rol £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.

	Ulster					Central	
UK	Bank	Commercial	Private	RBS	NatWest	items	
PB	Rol	Banking	Banking	International	Markets	& 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

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 is 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 Rol 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 Rol was mainly Stage 3 provisions in the legacy Ulster Bank Rol 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.

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.

		Wh	olesale (1)	Wholesale (1)							
	Banks and Sovereigns				Current		Total				
	Personal other FI s (2) Other			exposure	Personaloth		ereigns (2)	Other	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
Rol	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.

							ппраппен	
	AQ1-AQ4	AQ5-AQ8	AQ9	AQ10	Past due	Impaired	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

				REIL	Provisions			
	Gross			as a % of	as a %	as a % of	losses/	Amounts
	1	DEII	Daniel de la cons	gross	-CDEII -		(1	
2017	loans £m		Provisions £m	loans %	of REILg	ross loans %	(releases)	
		£m	£III	70	70	70	£m	£m
Central and local government	4,684	E.4	4.4	0.0	0.4	0.4	0	-
Finance	30,832	54	44	0.2	81	0.1	3	/
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.

	2017		2017
Number of days	£m	By sector	£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

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		Maxir credit		CRE Financial	M by type	e Other	CRE covera		Exposure CRE	•
	exposure	ECL	Total	3		roperty	(2)	Total	3	Total S	tage 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.

										Exposure
						Col	lateral (1)			post credit
				Balance						mitigation
	Gross	IFRS C	Carrying	sheet			Real estate	and other	Credit	and
		offset			Cash S	Securities	Commercial enhancement			
	exposure	(5)v	alue (6)	offset (7)	(2)	(3) F	Residential (4)	(4)	(8)	enhancement
2017	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£bn	£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)
'	,	(00.0)	,	(4505)	(04.0)	(40.0)	(474.0)	(45.4)	(0.4)	
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 managemen
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.

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.

		0010						2017		
	UK	2018 Ulster	Private			UK	Ulster	Private		
	_	Bank Rol		RBSI	Total		Bank Rol	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:	100,200	14,001	0,002	2,004	104,077	100,020	10,002	0,421	2,740	100,140
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	140,000	14,001	10,700	2,700	170,071	147,700	10,700	10,122	2,010	170,007
- Total portfolio	56%	62%	56%	58%	57%	56%	69%	55%	58%	57%
- Stage 1	56%	58%	56%	57%	56%					
- Stage 2	58%	67%	58%	55%	59%	56%	65%	55%	56%	57%
- 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%					
- Stage 3	58%	78%	68%	75%	71%					
Gross new mortgage lending	29,555	1,015	1,846	353	32,769	30,314	890	2,243	481	33,928
of which:										
Owner occupied	28,608	1,004	1,689	241	31,542	28,504	875	1,904	319	31,602
Weighted average LTV	69%	73%	62%	68%	69%	70%	75%	63%	70%	70%
Buy-to-let	947	11	157	112	1,227	1,810	15	339	162	2,326
Weighted average LTV	61%	57%	55%	61%	60%	62%	57%	56%	62%	61%
Interest only - variable rate	43		697	13	753	335	6	902	39	1,282
Interest only - fixed rate	1,189		764	43	1,996	1,835	1	874	48	2,758
Mixed (1)	912	1			913	893				893
Mortgage forbearance (4)										
Forbearance flow	446	210	11		667	440	201	31	5	677
Forbearance stock	1,338	2,645	8		3,991	1,384	3,893	7	25	5,309
Current	724	1,291	6		2,021	834	1,779	6	12	2,631
1-3 months in arrears	350	261			611	304	466		2	772
> 3 months in arrears	264	1,093	2		1,359	246	1,648	1	11	1,906

Notes:

- (1) Includes accounts which have an interest only sub-account and a capital and interest sub-account to provide a more comprehensive view of interest only exposures.
- (2) 31 December 2018 data was prepared under IFRS 9. 31 December 2017 data was prepared under IAS 39. For UK PB this excludes a non-material amount of provisions held on relatively small legacy portfolios.
- (3) Excludes loans that are commercial in nature, for example loans guaranteed by a company and commercial real estate lending to Personal customers.
- (4) The reduction in RBSI forbearance is due to reclassification.

Credit risk Banking activities continued
Key points
• Overall The overall credit risk profile of the Personal portfolio, and its performance against credit risk appetite, remained stable during 2018.
• Total lending Total mortgage lending grew by £1.2 billion with new lending partly offset by redemptions and repayments.
 New mortgage lending was lower than 2017. Existing mortgage stock and new business were closely monitored against agreed risk appetite parameters. These included loan-to-value ratios, buy-to-let concentrations, new-build concentrations and credit quality. Underwriting standards were maintained during the period.
 Owner occupied and buy-to-let Most of the mortgage growth was in the owner-occupied portfolio. New mortgages in the buy-to-let portfolio remained subdued.
• LTVs The mortgage portfolio loan-to-value ratio remained stable. The improvement in Ulster Bank Rol reflected house price recovery and the disposal of a portfolio of mortgages during the year, which also contributed to the reduction in the level of exposures in Stage 3.
 Interest only By value, the proportion of mortgages on interest only and mixed terms (capital and interest only) reduced, driven by fewer buy-to-let mortgages.
 Regional mortgage analysis For UK PB42% of mortgage lending was in Greater London and the South East (31 December 2017 43%). The level of exposure in this region remained broadly unchanged, reflecting lower demand for buy-to-let properties as well as mortgage redemptions. The weighted average loan-to-value for these regions was 52% (31 December 2017 51%) compared to an average of 56%.

Interest rate profile As at 31 December 2018, 81% of customers in the UK PB mortgage portfolio were on fixed rates (42% on five-year

deals). In addition, 97% of all new mortgage completions in 2018 were fixed rate mortgages (62% of which were five-year mortgages), as

customers sought to minimise the impact of potential rate rises.

- Provisions As expected, total ECL including ECL for unsecured lending generally increased under the IFRS 9 methodology compared to provisions calculated under IAS 39. The reduction in Ulster Bank Rol mortgage provisions was driven by a sale of legacy impaired debt.
- Other lending Total unsecured lending grew modestly in 2018, driven by growth in the PB personal loan portfolio. Overdraft balances have shown a modest decline year-on-year.
- Other lending asset quality Unsecured credit quality remained stable, reflecting active portfolio management. Credit standards and controls were tightened across all three unsecured products to ensure that higher risk customer performance remained within risk appetite.

Personal portfolio (audited)

Mortgage LTV distribution by stage

The table below summarises gross mortgage lending and related ECL by LTV band. Mortgage lending not within the scope of IFRS 9 ECL reflected portfolios carried at fair value.

	Mortgages				ECL				ECL provisions coverage (2)					
			_	Not		Of					-		_	
				within		which:								
UK PB				IFRS 9		gross								
				ECL		new								
							Stage	Stage	Stage	Total				
	Stage 1	Stage 2 S	Stage 3	scope	Total	lending	1	2	3	(1)	Stage 1 S	Stage 2 S	Stage 3	Total
2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	%	%	%	%
≤50%	47,111	3,423	516	153	51,203	4,779	2	16	64	82		0.5	12.4	0.2
>50% and ≤70%	44,037	3,632	459	49	48,177	8,535	2	23	39	64		0.6	8.5	0.1
>70% and ≤80%	20,345	1,490	135	15	21,985	7,434	1	11	11	23		0.7	8.1	0.1
>80% and ≤90%	12,733	1,118	81	12	13,944	7,524	2	12	8	22		1.1	10.0	0.2
>90% and ≤100%	2,343	178	24	7	2,552	1,104	1	4	3	8		2.4	12.1	0.3
>100% and ≤110%	57	35	8	1	101			2	1	3	0.1	4.6	14.1	2.8
>110% and ≤130%	53	41	9	2	105			2	1	3	0.1	5.4	14.6	3.4
>130% and ≤150%	23	23	6		52			1	1	2	0.1	6.2	13.4	4.3
>150%	3	9	3		15			1	1	2	0.1	6.2	17.3	7.2
Total with LTVs	126,705	9,949	1,241	239	138,134	29,376	8	72	129	209		0.7	10.4	0.2
Other	96	13	4	3	116	179		1	2	3		4.7	53.5	2.6
Total	126,801	9,962	1,245	242	138,250	29,555	8	73	131	212		0.7	10.5	0.2

	Non- Performing performing						
2017	£m £m	£m	£m				
≤50%	50,583 527	51,110	4,593				
>50% and ≤70%	47,361 505	47,866	8,310				
>70% and ≤80%	20,514 150	20,664	7,709				
>80% and ≤90%	13,409 87	13,496	8,239				
>90% and ≤100%	2,559 36	2,595	1,285				
>100% and ≤110%	130 14	144	1				
>110% and ≤130%	114 10	124	1				
>130% and ≤150%	58 5	63					
>150%	25 8	33	1				

Total with LTVs	134,753	1,342 136,095 30,13		
Other	512	18	530	175
Total	135,265	1,36013	36,625 3	30,314

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

Credit risk Banking activities continued

Personal portfolio (audited)

Mortgage LTV distribution by stage

	Mortgages Rol Not					ECL provisions				ECL provisions coverage (2)				
Ulster Bank Rol				Not within										
				IFRS 9		Ctogo	Ctogo	Ctogo						
	Stage 1	Stage 2	Stage 2	ECL	Total	Stage	Stage	Stage 3	Total	Stage 1 9	Stage 2 S	Stage 2	Total	
	•	Ū	•	_		1		_				-		
2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	%	%	%	%	
≤50%	3,818	374	463		4,655	1	5	40	46		1.4	8.6	1.0	
>50% and ≤70%	3,567	365	459		4,391	2	10	47	59		2.7	10.3	1.3	
>70% and ≤80%	1,564	190	241		1,995	1	11	52	64	0.1	5.5	21.5	3.2	
>80% and ≤90%	1,059	184	272		1,515	2	15	82	99	0.2	8.3	30.2	6.5	
>90% and ≤100%	570	154	261		985	2	17	99	118	0.4	11.1	37.7	11.9	
>100% and ≤110%	197	80	207		484	2	10	85	97	0.9	12.8	41.1	20.1	
>110% and ≤130%	51	35	179		265		6	84	90	8.0	16.6	47.0	34.0	
>130% and ≤150%	5	5	37		47		1	20	21	0.3	19.1	54.7	45.2	
>150%	10	1	13		24		1	7	8	2.1	27.2	58.9	33.5	
Total with LTVs	10,841	1,388	2,132		14,361	10	76	516	602	0.1	5.4	24.2	4.2	

	Performing Non-pe	rforming Total
2017	£m	£m £m
≤50%	3,743	333 4,076
>50% and ≤70%	3,600	382 3,982
>70% and ≤80%	1,858	233 2,091
>80% and ≤90%	1,420	273 1,693
>90% and ≤100%	1,070	309 1,379
>100% and ≤110%	814	317 1,131
>110% and ≤130%	378	414 792
>130% and ≤150%	20	126 146
>150%	23	39 62
Total with LTVs	12,926	2,426 15,352

Notes:

- (1) Excludes a non-material amount of provisions held on relatively small legacy portfolios.
- (2) ECL provisions coverage is ECL provisions divided by drawn exposure.

• ECL coverage rates increase through the LTV bands with both UK PB and Ulster Bank Rol having only limited exposures in the highest LTV bands. The relatively high coverage level in the lowest LTV band for UK PB included the effect of time-discounting on expected recoveries. Additionally, this also reflected the modelling approach that recognised an element of expected loss on mortgages that are not subject to formal repossession activity.

Credit risk Banking activities continued

Personal portfolio (audited)

UK PB Mortgage LTV distribution by region

		50%	80%	100%			Weighted average			
	<u><</u> 50%	<u><</u> 80%	<u>≤</u> 100%	<u><</u> 150%	>150%		LTV	Other	Total	Total
2018	£m	£m	£m	£m	£m	£m	%	£m	£m	%
South East	14,699	17,147	2,843	8		34,697	53	27	34,724	25
Greater London	12,928	9,614	1,298	3		23,843	48	19	23,862	17
Scotland	3,205	5,612	1,844	11		10,672	60	8	10,680	8
North West	4,163	7,756	1,970	6		13,895	59	12	13,907	10
South West	4,231	6,843	1,292	8		12,374	57	9	12,383	9
West Midlands	3,036	5,642	1,192	4		9,874	58	7	9,881	7
Rest of the UK	8,942	17,548	6,056	217	16	32,779	62	34	32,813	24
Total	51,204	70,162	16,495	257	16	138,134	56	116	138,250	100
2017										
South East	14,606	16,908	2,729	10		34,253	53	96	34,349	25
Greater London	13,592	9,900	1,322	3		24,817	48	112	24,929	18
Scotland	2,850	5,341	2,423	45		10,659	63	34	10,693	8
North West	4,125	7,510	2,131	11		13,777	59	63	13,840	10
South West	4,181	6,572	1,055	9		11,817	56	40	11,857	9
West Midlands	2,578	5,264	1,503	6		9,351	61	42	9,393	7
Rest of the UK	9,175	17,037	4,929	247	33	31,421	60	143	31,564	23
Total	51,107	68,532	16,092	331	33	136,095	56	530	136,625	100

Commercial real estate (CRE)

The CRE portfolio comprises exposures to entities involved in the development of, or investment in, commercial and residential properties (including house builders but excluding housing associations, construction and building materials). The sector is reviewed regularly at senior executive committees. Reviews include portfolio credit quality, capital consumption and control frameworks. All disclosures in the CRE section are based on current exposure (gross of provisions and risk transfer). Current exposure is defined as: loans; the amount drawn under a credit facility plus accrued interest; contingent obligations; the issued amount of the guarantee or letter of credit; derivatives - the mark to market value, netted where netting agreements exist and net of legally enforceable collateral.

		2018	2018			2017				
	UK	Rol	Other	Total	UK	Rol	Other	Total		
By geography and sub sector (1)	£m	£m	£m	£m	£m	£m	£m	£m		
Investment										
Residential (2)	4,426	363	54	4,843	4,319	227	39	4,585		

Office (3)	2,889	164	651	3,704	3,055	235	600	3,890
Retail (4)	5,168	40	92	5,300	5,401	42	132	5,575
Industrial (5)	2,270	51	176	2,497	2,438	36	14	2,488
Mixed/other (6)	3,221	180	123	3,524	4,609	203	228	5,040
	17,974	798	1,096	19,868	19,822	743	1,013	21,578
Development								
Residential (2)	2,715	122	124	2,961	3,107	145	154	3,406
Office (3)	192			192	169			169
Retail (4)	94	7	1	102	187	5	2	194
Industrial (5)	119	2	12	133	49			49
Mixed/other (6)	32	2		34	59	3		62
	3,152	133	137	3,422	3,571	153	156	3,880
Total	21,126	931	1,233	23,290	23,393	896	1,169	25,458

Notes:

- (1) Geographical splits are based on country of collateral risk.
- (2) Residential properties including houses, flats and student accommodation.
- (3) Office properties including offices in central business districts, regional headquarters and business parks.
- (4) Retail properties including high street retail, shopping centres, restaurants, bars and gyms.
- (5) Industrial properties including distribution centres, manufacturing and warehouses.
- (6) Mixed usage or other properties that do not fall within the other categories above. Mixed generally relates to a mixture of retail/office with residential.

Credit risk Banking activities continued

Commercial real estate (CRE)

CRE LTV distribution by stage (audited)

The table below summarises CRE current exposure and related ECL by LTV band.

				2018								2017				
	Current 6	exposu	re (gros (1,2)	s of pro	ovisions)	EC	CL prov	/isions		ECL pro	ovisioı 4)		erage			
				Not within												
				IFRS 9										Non-		
		Stage	Stage	scope		Stage S	Stage	Stage		Stage S	Stage	Stage				
	Stage 1	2	3	(3)		_ 1	2	3	Total	1	2	3		Performingpe	· ·	
	£m	£m	£m	£m		£m	£m	£m	£m	%	%	%	%	£m	£m	
≤50% >50% and	8,229	245	52	795	9,321	7	4	14	25	0.1	1.7	26.4	0.3	9,622	66	9,688
>30 % and ≤70%	4,769	297	78	703	5,847	6	6	14	26	0.1	2.0	17.8	0.5	6,621	119	6,740
- >70% and																
≤80%	394	43	33	6	476	1	1	8	10	0.3	2.6	23.4	2.1	405	52	457
>80% and <90%	55	11	24	2	92			5	5	0.3	3.4	20.9	6.1	158	42	200
>90% and	00	• • •		_	02			J	Ü	0.0	0.4	20.0	0.1	100	72	200
<u>≤</u> 100%	31	7	20	1	59			7	7	0.6	5.1	34.9	12.9	89	31	120
>100% and								_	_							
≤110% >110% and	53	4	15		72			5	5	0.3	4.2	34.6	7.6	34	21	55
≤130%	22	3	111	4	140			22	22	0.4	5.4	19.4	16.0	60	421	481
- >130% and																
<u>≤</u> 150%	6	10	10		26		1	4	5	0.9	6.3	40.6	18.1	44	29	73
>150%	30	6	42		78		1	29	30	0.5	9.8	69.6	38.1	149	72	221
Total with LTVs	13,589	626	385	1,511	16,111	14	13	108	135	0.1	2.1	27.9	0.9	17,182	853	18,035
Total portfolio																
average LTV%	45	56	114	48	47	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	48	119	51
Other (5) Development	2,655	133	784	185	3,757	4	5	50	59	0.2	4.0	6.3	1.7	3,112	431	3,543
(6)	2,865	205	178	174	3,422	11	3	80	94	0.4	1.6	44.8	2.9	3,634	246	3,880
Total	19,109				23,290	29	21	238	288	0.2	2.3	17.6	1.3	23,928		25,458

Notes:

⁽¹⁾ CRE current exposure comprises gross lending, interest rate hedging derivatives and other assets carried at fair value that are managed as part of the overall CRE portfolio.

- (2) The exposure in Stage 3 mainly related to legacy assets.
- (3) Includes exposures relating to non-modelled portfolios and other exposures carried at fair value, including derivatives.
- (4) ECL provisions coverage is ECL provisions divided by current exposure.
- (5) Relates mainly to business banking, rate risk management products and unsecured corporate lending. The low Stage 3 ECL provisions coverage was driven by a single large exposure, which has been written down to the expected recoverable amount.
- (6) Relates to the development of commercial and residential properties. LTV is not a meaningful measure for this type of lending activity.

Key points (audited)

- Overall The majority of the CRE portfolio was managed in the UK within Commercial Banking, Private Banking and UK PB. The remainder was managed in Ulster Bank Rol and NatWest Markets. Business appetite and strategy remain aligned across the segments.
- 2018 trends Growth in the commercial property market slowed during 2018.
- Performance varied widely by sub-sector with strong growth from industrials contrasting with material decline in parts of the retail sector.
- Credit quality The CRE retail portfolio had a low default rate, with a limited number of new defaults. The sub-sector was monitored on a regular basis and credit quality was in line with the wider CRE portfolio.
- Economics Fundamentals such as rental incomes, property values and investor/occupier demand for other commercial sub-sectors appeared more robust, however, all are exposed to some degree to the risk of a disorderly exit from the EU. Conditions for the mainstream residential sector remained resilient, supported by mortgage availability and high levels of employment. However, the higher value end of the market was characterised by low transaction volumes.
- Risk appetite Lending criteria for commercial real estate were at conservative levels, contributing to materially reduced leverage for new origination in London offices and parts of the retail sector.

Credit risk	Donking	activities: ontinued	ı
Credit HSK	Dalikillu	activities.	ı

Flow statements (audited)

The ECL flow statements analyse the key elements that drive the movement of ECL and related income statement over the reporting period. The key themes are:

- The flow statements capture the changes in ECL as well as the changes in related financial assets used in determining ECL. Exposures in this section may therefore differ from those reported in other tables in the credit risk section, principally in relation to exposures in Stage 1 and Stage 2. These differences do not have a material ECL impact.
- Financial assets presented in the flow statements include treasury liquidity portfolios, comprising balances at central banks and debt securities, as well as loans. Both modelled and non-modelled portfolios are included.
- Inter-Group transfers were a feature of the ECL flows during 2018 as a result of ring-fencing related changes. These transfers had no impact at a RBS Group-wide level.
- Stage transfers (for example, exposures moving from Stage 1 to Stage 2) these transfers are a key feature of the ECL movements, with the net re-measurement cost of transitioning to a worse stage being a primary driver of income statement charges for the period (likewise there is an ECL benefit for accounts improving stage).
- Changes in risk parameters captures the reassessment of the ECL within a given stage, including any ECL overlays and residual income statement gains or losses at the point of write-off or accounting write-down.
- Other (P&L only items) includes any subsequent changes in the value of written-down assets (for example, fortuitous recoveries) along with other direct write-off items such as direct recovery costs. Note: other (P&L only items) only affects the income statement and does not impact the balance sheet ECL movements.
- Amounts written-off represent the gross asset written-down against accounts with ECL, including the net asset write-down for debt sale activity.

- There were small amounts of ECL flows from Stage 3 to Stage 1 during the year. This does not however indicate that accounts can return from Stage 3 to Stage 1 directly. On a similar basis, flows from Stage 1 to Stage 3 were observed, however this also included legitimate transfers due to unexpected default events. The small number of write-offs in Stage 1 and 2 reflect the effect of portfolio debt sales and also staging at the start of the analysis period.
- The impact of model changes during 2018 were not material at a RBS Group-wide level or on the portfolios disclosed below.

	Stage 1		Stage 2		Stage 3		Tota	al
	Financial		Financial		Financial		Financial	
	assets	ECL	assets	ECL	assets	ECL	assets	ECL
Group total	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2018	419,038	262	29,637	621	10,595	3,565	459,270	4,448
Currency translation and other adjustments	1,820	(6)	88	17	50	(11)	1,958	
Transfers from Stage 1 to Stage 2	(18,416)	(52)	18,416	52				
Transfers from Stage 2 to Stage 1	13,723	228	(13,723)	(228)				
Transfers to Stage 3	(1,205)	(3)	(1,837)	(108)	3,042	111		
Transfers from Stage 3	1,272	16	1,523	163	(2,795)	(179)		
Net re-measurement of ECL on stage transfer		(207)		247		447		487
Changes in risk parameters (model inputs)		34		74		36		144
Other changes in net exposure	6,312	29	(6,716)	(32)	(1,633)	(85)	(2,037)	(88)
Other (P&L only items - primarily fortuitous recoveries)		1		3		(149)		(145)
Income statement (releases)/charges		(143)		292		249		398
Amounts written-off	(3)	(3)	(28)	(28)	(1,463)	(1,463)	(1,494)	(1,494)
Other movements		(1)		(6)		(94)		(101)
At 31 December 2018	422,541	297	27,360	772	7,796	2,327	457,697	3,396
Net carrying amount	422,244		26,588		5,469		454,301	

The following flow statements provide insight into the material portfolios underpinning the Group flow statements.

Personal

The following flow statements are at a portfolio level.

UK PB - mortgages								
At 1 January 2018	124,180	11	10,621	64	1,353	157	136,154	232
Transfers from Stage 1 to Stage 2	(4,928)	(1)	4,928	1				
Transfers from Stage 2 to Stage 1	4,245	15	(4,245)	(15)				
Transfers to Stage 3	(61)		(327)	(5)	388	5		
Transfers from Stage 3	7		235	23	(242)	(23)		
Net re-measurement of ECL on stage transfer		(15)		11		17		13
Changes in risk parameters (model inputs)				4		51		55
Other changes in net exposure	4,228		(970)	(6)	(257)	(14)	3,001	(20)
Other (P&L only items)		1				(6)		(5)
Income statement (releases)/charges		(14)		9		48		43
Amounts written-off			(1)	(1)	(26)	(26)	(27)	(27)
Other movements				(2)		(35)		(37)
At 31 December 2018	127,671	10	10,241	74	1,216	132	139,128	216
Net carrying amount	127,661		10,167		1,084		138,912	

Key points

• Overall ECL reduction was primarily driven by business-as-usual write-offs in Stage 3.

increa	Stage 1 ECL levels remained steady despite portfolio growth during 2018 as a result of modest PD reduction, with Stage 2 ECL showing as as a result of some additional forward-looking provisions being taken during the year.
typica	Transfers from Stage 3 back to the performing book were higher than those in Personal unsecured lending, due to the higher cure activity ally seen in mortgages.
• chanç	The increase in Stage 3 ECL changes in risk parameters reflected the monthly assessment of the loss requirement, capturing underlying ges in risk and forward-looking assessments.
• longe	Write-off of any residual shortfall following the sale of a repossessed property typically occurs within five years, although this period can be er, reflecting the ongoing support for customers who engage constructively with RBS.

Credit risk Banking activities:ontinued

Flow statements (audited)

	Stage	1	Stage	2	Stage	3	Total	
	Financial		Financial		Financial		Financial	
	assets	ECL	assets	ECL	assets	ECL	assets	ECL
UK PB - credit cards	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2018	2,841	52	997	94	105	75	3,943	221
Transfers from Stage 1 to Stage 2	(739)	(15)	739	15				
Transfers from Stage 2 to Stage 1	763	50	(763)	(50)				
Transfers to Stage 3	(42)	(1)	(88)	(20)	130	21		
Transfers from Stage 3	1	1	2	1	(3)	(2)		
Net re-measurement of ECL on stage transfer		(38)		66		68		96
Changes in risk parameters (model inputs)		(15)				(4)		(19)
Other changes in net exposure	(192)	2	343	17	(45)		106	19
Other (P&L only items)		3		(1)		(11)		(9)
Income statement (releases)/charges		(48)		82		53		87
Amounts written-off		, ,	(4)	(4)	(81)	(81)	(85)	(85)
Other movements			. ,	(1)	` ,	(6)	` '	(7)
At 31 December 2018	2,632	36	1,226	118	106	71 [′]	3,964	225
Net carrying amount	2,596		1,108		35		3,739	

- Overall ECL increased primarily due to increased levels of Stage 2 inflows in the first half of the year. This was the result of activity to calibrate and refine the criteria used to identify significant increase in credit risk, with underlying performance stable.
- Transfers from Stage 2 to Stage 1 were higher than in other personal portfolios, primarily due to the ECL assessment period being reset when cards are re-issued.
- ECL transfers from Stage 3 back to the performing book were relatively small as expected.
- The amounts in other (P&L only items) mainly reflected cash recoveries after write-off. These benefited the income statement without affecting ECL.

 Amounts written-off primarily represented charge-offs (analogous to write-off) which typically occurs after 12 missed payments, and also 2018 debt sale activity.

UK PB - other personal unsecured								
At 1 January 2018	4,518	46	1,790	164	705	582	7,013	792
Transfers from Stage 1 to Stage 2	(1,452)	(18)	1,452	18				
Transfers from Stage 2 to Stage 1	733	42	(733)	(42)				
Transfers to Stage 3	(51)	(1)	(182)	(50)	233	51		
Transfers from Stage 3	2		15	4	(17)	(4)		
Net re-measurement of ECL on stage transfer		(34)		110		114		190
Changes in risk parameters (model inputs)		2		58		(1)		59
Other changes in net exposure	1,325	19	(363)	(11)	(104)	(7)	858	1
Other (P&L only items - primarily fortuitous recoveries)						(42)		(42)
Income statement (releases)/charges		(13)		157		64		208
Amounts written-off	(2)	(2)	(9)	(9)	(322)	(322)	(333)	(333)
Other movements				(3)		(19)		(22)
At 31 December 2018	5,073	54	1,970	239	495	394	7,538	687
Net carrying amount	5,019		1,731		101		6,851	

Key points

- Overall ECL reduction was mainly driven by debt sale activity and business-as-usual write-offs in Stage 3, both reflected in amounts written-off.
- Increases in Stage 2 reflected the underlying performance of recent new business growth maturing. Additionally, the ECL overlay for economic uncertainty contributed to the uplift captured in changes in risk parameters.
- The portfolio continued to experience cash recoveries after write-off, reported in other (P&L only items primarily fortuitous recoveries). This benefited the income statement without affecting ECL.
- Write-off occurs once recovery activity with the customer has been concluded and there are no further recoveries expected, but no later than six years after default.

Credit risk Banking activities:ontinued

Flow statements (audited)

	Stage 1 Financial		Stage 2 Financial		Stage 3 Financial		Total Financial	
	assets	ECL	assets	ECL	assets	ECL	assets	ECL
Commercial Banking - business banking	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2018	6,505	29	684	29	268	224	7,457	282
Transfers from Stage 1 to Stage 2	(691)	(4)	691	4				
Transfers from Stage 2 to Stage 1	366	12	(366)	(12)				
Transfers to Stage 3	(35)	(1)	(63)	(8)	98	9		
Transfers from Stage 3	2	2	9	2	(11)	(4)		
Net re-measurement of ECL on stage transfer Changes in risk parameters (model inputs)		(12) (6)		24 2		43 (11)		55 (15)
Other changes in net exposure Other (P&L only items)	156	3	(57)	3	(36)	(23) (31)	63	(17) (31)
Income statement (releases)/charges Amounts written-off		(15)	(1)	29 (1)	(84)	(22) (84)	(85)	(8) (85)
Other movements		(1)	()	()	` ,	`(1)	()	(2)
At 31 December 2018 Net carrying amount	6,303 6,281	22	897 854	43	235 82	153	7,435 7,217	218

- Overall ECL reduction was mainly driven by business-as-usual write-offs in Stage 3.
- Stage 2 ECL did increase during the year as a result of net Stage 2 inflows from Stage 1, partly driven by PD model refinements throughout the year.
- The portfolio continued to experience cash recoveries after write-off, reported in other (P&L only items). This benefited the income statement without affecting ECL.

• Write-off occurs once recovery activity with the customer has been concluded and there are no further recoveries expected, but no later than five years after default.

Commercial Banking Other commercial At 1 January 2018	6,771	6	595	11	126	57	7,492	74
Currency translation and other adjustments Inter-Group transfers	(71)		(1)		(5)		(77)	
Transfers from Stage 1 to Stage 2	(781)	(2)	(1) 781	2	(5)		(77)	
Transfers from Stage 2 to Stage 1	389	6	(389)	(6)				
Transfers to Stage 3	(16)	· ·	(70)	(1)	86	1		
Transfers from Stage 3	1		25	(- /	(26)			
Net re-measurement of ECL on stage transfer		(4)		10		19		25
Changes in risk parameters (model inputs)		4						4
Other changes in net exposure	(886)	(1)	(123)	(1)	(62)	(6)	(1,071)	(8)
Other (P&L only items)		(2)		1		1		
Income statement (releases)/charges		(3)		10		14		21
Amounts written-off		(0)		10	(27)	(27)	(27)	(27)
Other movements					(21)	`	(27)	(1)
At 31 December 2018	5,408	9	818	15	92	(1) 43	6,318	67
Net carrying amount	5,399	9	803	13	49	43	6,251	07
Net carrying amount	5,599		003		49		0,231	

Key point

• Overall ECL reduced slightly during the year, with some modest Stage 1 and Stage 2 ECL increases being more than offset by Stage 3 write-offs, which was the key driver of the overall income statement charge for 2018.

Credit risk Banking activities:ontinued

Flow statements (audited)

	Stage 1 Financial				Stage Financial	3	Total Financial	
	assets	ECL	assets	ECL	assets	ECL	assets	ECL
Histor Donk Dol., mortgogo	asseis £m	£m	£m	£m	£m	£m	£m	£m
Ulster Bank Rol - mortgages				72				
At 1 January 2018	10,650	8	1,532	12	3,167	881	15,349	961
Currency translation and other adjustments	94	(4)	12	1	15	3	121	4
Transfers from Stage 1 to Stage 2	(344)	(1)	344	1				
Transfers from Stage 2 to Stage 1	414	7	(414)	(7)				
Transfers to Stage 3	(32)		(124)	(8)	156	8		
Transfers from Stage 3	4		245	36	(249)	(36)		
Net re-measurement of ECL on stage transfer		(6)		(4)		11		4
· · · · · · · · · · · · · · · · · · ·		(6) 3		(4)				(21)
Changes in risk parameters (model inputs)	(4)	3	(4.00)	(1)	(000)	(23)	(000)	(21)
Other changes in net exposure	(4)	(0)	(188)	(2)	(630)	14	(822)	12
Other (P&L only items)		(2)		2		28		28
Income statement (releases)/charges		(5)		(5)		30		20
Amounts written-off		` '	(13)	(13)	(322)	(322)	(335)	(335)
Other movements			(- /	(- /	(- /	(20)	(/	(20)
At 31 December 2018	10,782	11	1,394	75	2,137	516	14,313	602
Net carrying amount	10,771	• •	1,319	. 0	1,621	2.0	13,711	-0-
riot barrying ambant	. 5,771		1,510		.,521		. 0,7 11	

- The overall ECL reduction was driven by reduced ECL in Stage 3, which was subject to significant debt sale activity in 2018 (approximately £0.9 billion of gross exposures were sold during the year).
- In addition to the debt sale activity, the reduction in ECL in Stage 3 reflected ongoing improvements in underlying portfolio performance.
- The reduction in Stage 2 exposures resulted from the portfolio debt sale and decreasing stock of exposures meeting the high-risk backstop criteria. This reflected ongoing improvements in the underlying portfolio performance.

• Write-off generally occurs once the repossessed property has been sold and there is a residual shortfall balance remaining outstanding which has been deemed irrecoverable.

Wholesale

Commercial Banking								
At 1 January 2018	84,228	58	9,056	106	3,735	1,156	97,019	1,320
Currency translation and other adjustments	367		47	(1)	29	(4)	443	(5)
Inter-Group transfers	(2,106)	(1)	(92)		(375)	(14)	(2,573)	(15)
Transfers from Stage 1 to Stage 2	(8,224)	(9)	8,224	9				
Transfers from Stage 2 to Stage 1	5,911	52	(5,911)	(52)				
Transfers to Stage 3	(881)		(938)	(13)	1,819	13		
Transfers from Stage 3	1,056	11	937	89	(1,993)	(100)		
Net re-measurement of ECL on stage transfer		(57)		13		160		116
Changes in risk parameters (model inputs)		46		8		41		95
Other changes in net exposure	(4,274)	(1)	(2,748)	(19)	(489)	(40)	(7,511)	(60)
Other (P&L only items)				1		(8)		(7)
Income statement (releases)/charges		(12)		3		153		144
Amounts written-off					(460)	(460)	(460)	(460)
Other movements						(10)		(10)
At 31 December 2018	76,077	99	8,575	140	2,266	742	86,918	981
Net carrying amount	75,978		8,435		1,524		85,937	

- ECL reduced over the course of 2018 as write-offs outweighed ECL charges.
- Stage 3 charges were mainly driven by a charge on new to default exposures where the ECL can increase significantly following an individual assessment.
- Stage 1 and Stage 2 changes to risk parameters largely reflected the increase in ECL for economic uncertainty and a change to the forward-looking modelling approach for point-in-time PDs, where PDs now revert to long-run average after one year rather than five years.
- Inter-Group transfers reflected the impact of transfers completed in preparation of ring-fencing. The reductions in net exposure were also related to ring-fencing changes, where short-term borrowing was renewed in other franchises.
- Release in Stage 1 was driven by a reduction in ECL for exposures transferring from Stage 2 and Stage 3, which previously had a lifetime ECL but are now assessed for 12 month ECL.

Credit risk Banking activities continued

Flow statements (audited)

	Stage 1 Financial		0	Stage 2 Financial		Stage 3 Financial		
	assets	ECL	assets	ECL	assets	ECL	Financial assets	ECL
NatWest Markets (1)	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2018	9.089	2	1,276	42	456	190	10,821	234
Currency translation and other adjustments	252	_	22	(2)	3	3	277	1
Inter-Group transfers	3,590		(4)	1	374	14	3,960	15
Transfers from Stage 1 to Stage 2	(393)		393	•			-,	
Transfers from Stage 2 to Stage 1	318	28	(318)	(28)				
Transfers to Stage 3			(3)	(- /	3			
Transfers from Stage 3			35		(35)			
Net re-measurement of ECL on stage transfer Changes in risk parameters (model inputs) Other changes in net exposure	19,902	(26) (5) 8	(669)	5 4 (8)	(4)	(6)	19,229	(21) (1) (6)
Other (P&L only items - primarily fortuitous recoveries)			, ,	, ,	, ,	(64)		(64)
Income statement (releases)/charges Amounts written-off		(23)		1	(89)	(70) (89)	(89)	(92) (89)
Other movements					` ,	` /	,	` ,
At 31 December 2018	32,758	7	732	14	708	112	34,198	133
Net carrying amount	32,751		718		596		34,065	

Note:

(1) Reflects NatWest Markets segments and include NWM N.V..

- Stage 3 financial assets include £166 million (1 January 2018 £105 million) purchased or originated credit impaired (POCI) assets. No ECL impairment was held on these positions and a £61 million impairment recovery was recognised on these POCI assets during 2018 (included in other (P&L only items primarily fortuitous recoveries)).
- Stage 1 and Stage 2 changes to risk parameters largely reflected the increase in ECL for economic uncertainty, and a change to the forward-looking modelling approach for point-in-time PDs, where PDs now revert to long run average after one year rather than five years.

- The release in Stage 1 was driven by a reduction in ECL on exposures transferring from Stage 2, which previously had a lifetime ECL but are now assessed for 12 month ECL.
- The increase in Stage 1 exposure was due to a combination of transfers and short-term borrowing to governments and central banks which are now in NatWest Markets following changes in preparation for ring-fencing.
- The portfolio experienced fortuitous recoveries, reported in other (P&L only items primarily fortuitous recoveries). This benefited the income statement without affecting ECL.

Private Banking At 1 January 2018 Currency translation and other adjustments Inter-Group transfers Transfers from Stage 1 to Stage 2 Transfers from Stage 2 to Stage 1 Transfers to Stage 3 Transfers from Stage 3	13,046 12 23 (270) 92 (60) 7	18 (1) 2	412 1 270 (92) (8) 1	9 2 1 (2)	300 68 (8)	27	13,758 13 23	54 2
Net re-measurement of ECL on stage transfer Changes in risk parameters (model inputs) Other changes in net exposure Other (P&L only items)	1,100	(2) (3)	(65)	3 (2) (1)	(121)	1 1 (2) (1)	914	2 (4) (3) (1)
Income statement releases Amounts written-off Other movements At 31 December 2018 Net carrying amount	13,950 13,936	(5) 14	519 509	10	(7) 232 213	(1) (7) (1) 19	(7) 14,701 14,658	(6) (7) (1) 43

- ECL reduced due to a combination of write-offs and impairment releases.
- The majority of the release was in Stage 1, due to a reduction in loss rates for Retail exposures.
- Exposure increased in Stage 1 reflecting growth in the portfolio (primarily mortgages driven) with minimal ECL impact due to high credit
 quality.

Credit risk Banking activities:ontinued

Flow statements (audited)

	Stage 1 Financial		Stage 2		Stage 3		Total	
		FOL	Financial	FOL	Financial	FOL	Financial	FOL
RRC International	assets	ECL	assets	ECL	assets	ECL	assets	ECL
RBS International	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2018	8,652	5	385	5	118	28	9,155	38
Currency translation and other adjustments	98	(2)		2		(1)	98	(1)
Inter-Group transfers	1,834		95				1,929	
Transfers from Stage 1 to Stage 2	(299)		299					
Transfers from Stage 2 to Stage 1	340	5	(340)	(5)				
Transfers to Stage 3	(14)		(11)		25			
Transfers from Stage 3	190		4		(194)			
Net re-measurement of ECL on stage transfer Changes in risk parameters (model inputs)		(4) 2		2				(2)
Other changes in net exposure	15,948		(156)		155	(1)	15,947	(1)
Other (P&L only items)	•	(1)	,	1		(1)	,	(1)
Income statement (releases)/charges		(3)		3		(2)		(2)
Amounts written-off		()			(9)	(9)	(9)	(9)
Other movements					(-)	(-)	(-)	(-)
At 31 December 2018	26,749	6	276	4	95	17	27,120	27
Net carrying amount	26,743		272	-	78		27,093	

- The reduction in ECL was driven by write-offs and Stage 3 impairment releases, both of which are primarily in the Spanish mortgage portfolio.
- The increases in exposure were partly due to new lending, but mainly due to the establishment of a liquidity portfolio across central and correspondent banks and sovereign bond holdings. These exposures were in Stage 1 with very low credit risk and contribute minimal ECL.

Credit risk Banking activities:ontinued

Stage 2 decomposition arrears status and contributing factors

The tables below summarise Stage 2 decomposition for the Personal and Wholesale portfolios.

	UK mort	nages	Ro mortga		Othe mortga		Credit o	ards	Othe	er	Tota	al
	Loans	ECL	Loans	ECL	Loans	ECL	Loans	ECL	Loans	ECL	Loans	ECL
31 December 2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Personal												
Currently in arrears (>30 DPD)	658	10	90	10	3		17	6	88	22	856	48
Currently up-to-date	9,612	64	1,292	66			1,226	114	1,985	225	14,115	469
- PD deterioration	3,855	54	680	44			778	85	1,255	176	6,568	359
- Up-to-date, PD persistence	1,448	5	54	1			337	17	440	26	2,279	49
- Other driver (adverse credit, forbearance etc)	4,309	5	558	21			111	12	290	23	5,268	61
Total Stage 2	10,270	74	1,382	76	3		1,243	120	2,073	247	14,971	517

Key point

• In Personal exposures, as expected, ECL coverage was higher on accounts that are more than 30 days past due. Also in line with expectations, accounts exhibiting PD deterioration have a higher ECL coverage than accounts in Stage 2 for other reasons.

	Prope	rty	Corpor	rate	FI		Othe	r	Tota	I
	Loans	ECL	Loans	ECL	Loans	ECL	Loans	ECL	Loans	ECL
31 December 2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Wholesale										
Currently in arrears (>30 DPD)	255	7	315	5	1				571	12
Currently up-to-date	1,622	32	8,438	195	473	7	22		10,555	234
- PD deterioration	924	23	5,564	138	281	6	8		6,777	167
- Up-to-date, PD persistence	<i>57</i>	1	170	5	4				231	6
- Other driver (forbearance, RoCL etc.)	641	8	2,704	52	188	1	14		3,547	61
Total Stage 2	1,877	39	8,753	200	474	7	22		11,126	246

• In Wholesale exposures, the ECL coverage was broadly consistent in total. Coverage can vary across categories or sectors reflecting the individual characteristics of the customer and exposure type.

Stage 2 decomposition by SICR trigger

	UK mort	gages	Rol mort	gages	Oth mortg		Credit o	cards	Othe	er	Tota	al
31 December 2018	£m	%	£m	%	£m	%	£m	%	£m	%		%
Personal trigger (1)												
PD movement	4,273	41.6	767	55.6			793	63.8	1,307	63.0	7,140	47.7
PD persistence	1,450	14.1	54	3.9			338	27.2	440	21.2	2,282	15.2
Adverse credit bureau recorded with cred	it											
reference agency	2,996	29.2					61	4.9	101	4.9	3,158	21.1
Forbearance support provided	206	2.0	2	0.1					13	0.6	221	1.5
Customers in collections	144	1.4	57	4.1			5	0.4	36	1.7	242	1.6
Other reasons (2)	982	9.6	502	36.3			46	3.7	151	7.3	1,681	11.2
Days past due >30	219	2.1			3	100.0			25	1.2	247	1.6
	10,270	100	1,382	100	3	100	1,243	100	2,073	100	14,971	100

Key point

• The primary driver of credit deterioration was PD, which including persistence, accounted for the majority of movements to Stage 2. High risk back-stops, for example, forbearance, adverse credit bureau, provide additional valuable discrimination particularly on mortgages.

	Prope	erty	Corpor	ate	FI		Othe	er	Tota	al
31 December 2018	£m	%	£m	%	£m	%	£m	%	£m	%
Wholesale trigger (1)										
PD movement	940	50.1	5,617	64.2	281	59.3	8	36.4	6,845	61.5
PD persistence	57	3.0	171	2.0	4	8.0			232	2.1
Risk of Credit Loss	321	17.1	1,964	22.4	103	21.7			2,388	21.5
Forbearance support provided	65	3.5	209	2.4					274	2.5
Customers in collections	9	0.5	43	0.5					52	0.5
Other reasons (3)	251	13.4	525	6.0	85	17.9	14	63.6	875	7.9
Days past due >30	234	12.5	224	2.6	1	0.2			460	4.1
	1,877	100	8,753	100	474	100	22	100	11,126	100

Notes:

- (1) The data table is built on a hierarchical basis from top to bottom, for example, accounts with PD deterioration may also trigger backstop(s) but are only reported under PD deterioration.
- (2) Includes customers who have accessed payday lending, interest only mortgages past end of term, a small number of mortgage customers on a highly flexible mortgage significantly behind their outline repayment plan and customers breaching risk appetite thresholds for new business acquisition. On the Rol mortgage portfolio, this reflected customers who remained in probation following the conclusion of forbearance support, exposures breaching risk appetite thresholds for new business acquisition and exposures classified as non-performing exposures under EBA requirements.
- (3) Includes customers where a PD assessment cannot be undertaken due to missing PDs.

• The primary driver of credit deterioration was PD, which including persistence, accounted for 62% of Stage 2. The Risk of Credit Loss framework accounted for a further 21% highlighting the importance of expert judgement being used to identify deterioration.

Credit risk Banking activitiescontinued

Stage 3 vintage analysis

The table below provides estimated vintage analysis of the material Stage 3 portfolios totalling 87% of the Stage 3 loans of £7.7 billion.

	UK PB	Ulster Rol	
2018	mortgages	mortgages	Wholesale
Stage 3 loans (£bn)	1.2	2.1	3.4
Vintage (time in default):			
<1 year	26%	7%	22%
1-3 years	21%	12%	19%
3-5 years	14%	14%	9%
5-10 years	35%	63%	50%
>10 years	4%	4%	
	100%	100%	100%

Key points

- Mortgages The proportion of the Stage 3 defaulted population who have been in default for over five years reflected RBS s support for customers in financial difficulty. When customers continue to engage constructively with RBS making regular payments, RBS continues to support them. RBS s provisioning approach retains customers in Stage 3 for a life-time loss provisioning calculation even when their arrears status reverts to below 90 days past due.
- Wholesale The value of Stage 3 loans that have been impaired for 5-10 years was mainly due to customers being in a protracted formal insolvency process or subject to litigation or a complaints process.

Asset quality (audited)

Asset quality analysis is based on internal asset quality ratings which have ranges for the probability of default. Customers are assigned credit grades, based on various credit grading models that reflect the key drivers of default for the customer type. All credit grades across RBS map to both an asset quality scale, used for external financial reporting, and a master grading scale for wholesale exposures used for internal management reporting across portfolios. The table that follows details the relationship between internal asset quality (AQ) bands and external ratings published by Standard & Poor s (S&P), for illustrative purposes only. This relationship is established by observing S&P s default study statistics, notably the one year default rates for each S&P rating grade. A degree of judgement is required to relate the probability of default ranges associated with the master grading scale to these default rates given that, for example, the S&P published default rates do not increase uniformly by grade and the historical default rate is nil for the highest rating categories.

Internal asset quality band	Probability of default range	Indicative S&P rating
AQ1	0% - 0.034%	AAA to AA
AQ2	0.034% - 0.048%	AA to AA-
AQ3	0.048% - 0.095%	A+ to A
AQ4	0.095% - 0.381%	BBB+ to BBB-
AQ5	0.381% - 1.076%	BB+ to BB
AQ6	1.076% - 2.153%	BB- to B+
AQ7	2.153% - 6.089%	B+ to B
AQ8	6.089% - 17.222%	B- to CCC+
AQ9	17.222% - 100%	CCC to C
AQ10	100%	D

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

Credit risk Banking activities:ontinued

Asset quality (audited)

The table below summarises asset quality bands of gross loans and ECL by stage for the Personal portfolio.

		Gross	loans			ECL pro	visions		ECL	provisio	ns covera	ge
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
2018	£m	£m	%	%	%	%						
UK mortgages												
AQ1-AQ4	95,618	3,621		99,239	6	11		17	0.01	0.30		0.02
AQ5-AQ8	42,771	5,845		48,616	6	46		52	0.01	0.79		0.11
AQ9	32	804		836		17		17		2.11		2.03
AQ10			1,541	1,541			151	151			9.80	9.80
	138,421	10,270	1,541	150,232	12	74	151	237	0.01	0.72	9.80	0.16
Rol mortgages												
AQ1-AQ4	5,164	226		5,390	4	5		9	0.08	2.21		0.17
AQ5-AQ8	5,668	717		6,385	7	32		39	0.12	4.46		0.61
AQ9	12	439		451		39		39		8.88		8.65
AQ10 (1)			2,124	2,124			515	515			24.25	24.25
	10,844	1,382	2,124	14,350	11	76	515	602	0.10	5.50	24.25	4.20
Other mortgages	•	•	•	•								
AQ1-AQ4	359	1		360								
AQ5-AQ8	136	2		138								
AQ10			1	1								
	495	3	1	499								
Credit cards												
AQ1-AQ4	34	1		35								
AQ5-AQ8	2,810	1,180		3,990	38	103		141	1.35	8.73		3.53
AQ9	7	62		69		17		17		27.42		24.64
AQ10			122	122			72	72			59.02	59.02
	2,851	1,243	122	4,216	38	120	72	230	1.33	9.65	59.02	5.46
Other												
AQ1-AQ4	997	43		1,040	4	5		9	0.40	11.63		0.87
AQ5-AQ8	5,889	1,847		7,736	55	186		241	0.93	10.07		3.12
AQ9	56	183		239	2	56		58	3.57	30.60		24.27
AQ10			563	563			420	420			74.60	74.60
	6,942	2,073	563	9,578	61	247	420	728	0.88	11.92	74.60	7.60
Total												
AQ1-AQ4	102,172	3,892		106,064	14	21		35	0.01	0.54		0.03
AQ5-AQ8	57,274	9,591		66,865	106	367		473	0.19	3.83		0.71
AQ9	107	1,488		1,595	2	129		131	1.87	8.67		8.21
AQ10			4,351	4,351			1,158	1,158			26.61	26.61
	159,553	14,971	4,351	178,875	122	517	1,158	1,797	0.08	3.45	26.61	1.00

Note:

(1)

purposes for Rol but included in Stage 3.

At 31 December 2018, AQ10 includes £0.6 billion Rol mortgages which are not currently considered defaulted for capital calculation

Key points
• The majority of exposures were in AQ1-AQ4, with a significant proportion in AQ5-AQ8. As expected, mortgage exposures have a higher proportion in AQ1-AQ4 than unsecured borrowing.
• The relatively high level of Stage 3 impaired assets (AQ10) in RoI mortgages reflected their legacy mortgage portfolio and the residual effects from the financial crisis. In other personal, the relatively high level of exposures in AQ10 reflected the fact that impaired assets can be held on balance sheet with commensurate ECL provision for up to six years after default.

ECL provisions coverage shows the expected trend with increased coverage in the poorer asset quality bands, and also by stage.

Credit risk Banking activities:ontinued

Asset quality (audited)

The table below summarises asset quality bands of gross loans and ECL by stage for the Wholesale portfolio.

	Stage 1	Gro Stage 2	ss loans	Total	Stage 1S		provisions	Total			sions covera	age Total
2018	£m	0	£m	£m	£m	taye z	£m	£m	%	%	Stage 3 %	10tai
Property	LIII	Į.	LIII	2111	LIII	LIII	LIII	LIII	70	70	70	70
AQ1-AQ4	15,740	393		16,133	8	9		17	0.05	2.29		0.11
					35	26		61	0.03	1.83		0.11
AQ5-AQ8 AQ9	17,397 8	1,418 66		18,815 74	33	26 4		4	0.20	6.06		5.41
	0	00	1 COE			4	E00			6.06	20.02	
AQ10	00 1 15	1 077	1,685	1,685	40	00	506	506	0.10	0.00	30.03	30.03
0	33,145	1,877	1,685	36,707	43	39	506	588	0.13	2.08	30.03	1.60
Corporate												
AQ1-AQ4	21,814	773		22,587	13	14		27	0.06	1.81		0.12
AQ5-AQ8	40,004	7,647		47,651	93	171		264	0.23	2.24		0.55
AQ9	26	333		359	1	15		16	3.85	4.50		4.46
AQ10			1,643	1,643			634	634			38.59	38.59
	61,844	8,753	1,643	72,240	107	200	634	941	0.17	2.28	38.59	1.30
Financial institutions												
AQ1-AQ4	22,150	247		22,397	5	5		10	0.02	2.02		0.04
AQ5-AQ8	2,352	222		2,574	7	2		9	0.30	0.90		0.35
AQ9		5		5								
AQ10			35	35			22	22			62.86	62.86
	24,502	474	35	25,011	12	7	22	41	0.05	1.48	62.86	0.16
Sovereign												
AQ1-AQ4	6,780	22		6,802	1			1	0.01			0.01
AQ5-AQ8	161			161								
AQ10			4	4								
	6,941	22	4	6,967	1			1	0.01			0.01
Total				•								
AQ1-AQ4	66.484	1.435		67,919	27	28		55	0.04	1.95		0.08
AQ5-AQ8	59,914	9,287		69,201	135	199		334	0.23	2.14		0.48
AQ9	34	404		438	1	19		20	2.94	4.70		4.57
AQ10	-		3,367	3,367		-	1,162	1,162		-	34.51	34.51
	126,432	11 100	3,367	140,925	163	246	1,162	1,571	0.13	2.21	34.51	1.11

[•] Across the Wholesale portfolio, the asset quality band distribution differed reflecting the diverse nature of differing sectors. 48% of Wholesale lending exposure was in the AQ1-AQ4 band.

[•] The relatively low provision coverage for Stage 3 loans in the property sector reflected the secured nature of the exposures.

Credit risk Trading activities

This section covers the credit risk profile of RBS s trading activities. All disclosures are audited.

Security funding transactions and collateral (audited)

The table below captures securities funding transactions in NWM and Treasury. All transactions that are outside netting arrangements are in NWM.

	Re	everse repos		Repos			
		-	Outside		-	Outside	
		Of which:	netting		Of which:	netting	
		can be			can be		
	Total		angements	Total		angements	
2018	£m	£m	£m	£m	£m	£m	
Gross	68,044	65,057	2,987	70,097	68,940	1,157	
IFRS offset	(39,737)	(39,737)		(39,737)	(39,737)		
Carrying value	28,307	25,320	2,987	30,360	29,203	1,157	
Master netting arrangements	(762)	(762)		(762)	(762)		
Securities collateral	(24,548)	(24,548)		(28,441)	(28,441)		
Potential for offset not recognised under IFRS	(25,310)	(25,310)		(29,203)	(29,203)		
Net	2,997	10	2,987	1,157	(-,,	1,157	
	•			-			
2017							
Gross	84,706	78,991	5,715	82,395	80,088	2,307	
IFRS offset	(43,974)	(43,974)		(43,974)	(43,974)		
Carrying value	40,732	35,017	5,715	38,421	36,114	2,307	
Master netting arrangements	(329)	(329)		(329)	(329)		
Securities collateral	(34,646)	(34,646)		(35,785)	(35,785)		
Potential for offset not recognised under IFRS	(34,975)	(34,975)		(36,114)	(36,114)		
Net	5,757	42	5,715	2,307	(30,714)	2,307	
	5,707		3,710	_,007		_,007	

Credit risk Trading activities continued

Derivatives (audited)

The table below summarises derivatives by type of contract. The master netting agreements and collateral shown below do not result in a net presentation on the balance sheet under IFRS 9. A significant proportion (more than 90%) of the derivatives relate to trading activities in NatWest Markets, the table below also includes hedging derivatives in Treasury.

		Notional	2018	;					2017	
	GBP £bn	USD £bn	Euro £bn	Other £bn	Total £bn	Assets £m	Liabilities £m	Notional £bn	Assets £m	Liabilities £m
Gross exposure	2011	2011	2011	2011	2011	138,390	135,673	2011	177,931	172,063
IFRS offset						(5,041)	(6,776)		(17,088)	(17,557)
Carrying value Of which:	2,895	5,129	4,323	1,632	13,979	133,349	128,897	15,482	160,843	154,506
Interest rate (1)										
Interest rate swaps Options purchased						81,855 14,481	74,004		99,065 21,733	91,025
Options written						14,401	16,371		21,700	21,021
Futures and forwards						74	69		147	114
Total	2,521	3,589	3,686	740	10,536	96,410	90,444	12,016	120,945	112,160
Exchange rate										
Spot, forwards and futures						17,904	18,610		19,283	19,172
Currency swaps						11,322 7,319	12,062		11,163 8,765	13,534
Options purchased Options written						7,319	7,558		0,765	8,975
Total	373	1,532	629	892	3,426	36,545	38,230	3,425	39,211	41,681
Credit	1	7	8		16	346	208	38	531	558
Equity and commodity		1			1	48	15	3	156	107
Carrying value					13,979	133,349	128,897	15,482	160,843	154,506
Counterparty										
mark-to-market netting Cash collateral						, , ,	(106,762)		(128,287)	
Securities collateral						(17,937) (4,469)	(15,227) (3,466)		(5,850)	(18,035) (3,952)
Net exposure						4,181	3,442		6.395	4,232
Of which outside netting arrangements						2,061	1,708		2,261	1,658
Banks (2)						362	443		461	466
Other financial institutions (3)						1,054	1,144		1,608	1,625
Corporate (4)						2,510	1,817		3,843	2,065
Government (5)						255	38		483	76
Net exposure						4,181	3,442		6,395	4,232
•										

UK	1,935	1,304	4,079	1,853
Europe	1,308	1,465	1,643	1,777
US	588	298	346	317
RoW	350	375	327	285
Net exposure	4,181	3,442	6,395	4,232
Asset quality of uncollateralised derivative assets				
AQ1-AQ4	3,384		5,173	
AQ5-AQ8	773		1,216	
AQ9	3		3	
AQ10	21		3	
Net exposure	4,181		6,395	

Notes:

- (1) The notional amount of interest rate derivatives include £5,952 billion (2017 £7,400 billion) in respect of contracts cleared through central clearing counterparties.
- (2) Transactions with certain counterparties with whom RBS has netting arrangements but collateral is not posted on a daily basis; certain transactions with specific terms that may not fall within netting and collateral arrangements; derivative positions in certain jurisdictions for example China where the collateral agreements are not deemed to be legally enforceable.
- (3) Transactions with securitisation vehicles and funds where collateral posting is contingent on RBS s external rating.
- (4) Mainly large corporates with whom RBS may have netting arrangements in place, but operational capability does not support collateral posting.
- (5) Sovereigns and supranational entities with one-way collateral agreements in their favour.

Credit risk Trading activities:ontinued

Derivatives: settlement basis and central counterparties (audited)

The table below summarises the derivative notional and fair value by trading and settlement method.

		Notion Traded over the			Asse	et	Liabil	ity
	Traded on recognised exchanges or	Settled by central bunterparties co	Not settled by central	Total	Traded on recognised exchanges	Traded over the counter	Traded on recognised exchanges	Traded over the counter
2018	£bn	£bn	£bn	£bn	£m	£m	£m	£m
Interest rate	1,642	5,952	2,942	10,536		96,410		90,444
Exchange rate	4		3,422	3,426		36,545		38,230
Credit			16	16		346		208
Equity and commodity			1	1		48		15
Total	1,646	5,952	6,381	13,979		133,349		128,897
2017								
Interest rate	1,506	7,400	3,110	12,016		120,945		112,160
Exchange rate	4		3,421	3,425		39,211		41,681
Credit			38	38		531		558
Equity and commodity			3	3		156	1	106
Total	1,510	7,400	6,572	15,482		160,843	1	154,505

Debt securities (audited)

The table below summarises debt securities held at mandatory fair value through profit or loss by issuer as well as ratings based on the lowest of Standard & Poor s, Moody s and Fitch. A significant proportion (more than 95%) of these positions are trading securities in NatWest Markets.

	Central and	l local governn	nent	Financial		
	UK	US	Other	institutions	Corporate	Total
2018	£m	£m	£m	£m	£m	£m
AAA			2,093	1,459	7	3,559
AA to AA+	6,834	4,689	3,161	773	120	15,577
A to AA-			4,571	482	51	5,104
BBB- to A-			3,592	802	285	4,679
Non-investment grade			81	832	237	1,150
Unrated				572	8	580
Total	6,834	4,689	13,498	4,920	708	30,649
Short positions 2017	(6,394)	(2,008)	(13,500)	(1,724)	(201)	(23,827)
AAA			1,474	1,576	21	3,071

AA to AA+ A to AA- BBB- to A- Non-investment grade	3,514	3,667	2,386 7,224 3,267 385	984 427 796 552	168 78 493 171	10,719 7,729 4,556 1,108
Unrated Total	3,514	3,667	14,736	255 4,590	43 974	298 27,481
Short positions	(3,490)	(2,501)	(20,390)	(1,945)	(201)	(28,527)

Credit risk Cross border exposure

Cross border exposures comprise both banking and trading activities, including reverse repurchase agreements. Exposures comprise loans and advances, including finance leases and instalment credit receivables, and other monetary assets, such as debt securities. The geographical breakdown is based on the country of domicile of the borrower or guarantor of ultimate risk. Cross border exposures include non-local currency claims of overseas offices on local residents but exclude exposures to local residents in local currencies. The table below sets out cross border exposures greater than 0.5% of RBS s total assets.

	Government	Banks	Other	Total Sh	ort positions	Net of short positions
2018	£m	£m	£m	£m	£m	£m
Western Europe	21,121	19,003	16,741	56,865	14,103	42,762
Of which: France	3,396	10,209	1,579	15,184	1,626	13,558
Of which: Germany	8,023	3,086	1,145	12,254	5,397	6,857
Of which: Netherlands	1,142	675	3,739	5,556	985	4,571
United States	13,558	5,458	8,379	27,395	2,103	25,292
Japan	4,857	2,327	405	7,589	11	7,578
2017						
France	4,721	11,739	2,320	18,780	3,324	15,456
Germany	7,643	5,819	2,165	15,627	9,957	5,670
Netherlands	1,897	798	5,395	8,090	986	7,104
United States	8,697	4,494	8,048	21,239	2,607	18,632
Japan	7,533	4,879	197	12,609	15	12,594
2016						
France	4,275	7,045	2,003	13,323	2,392	10,931
Germany	8,868	4,836	2,138	15,842	4,207	11,635
Netherlands	2,809	563	6,699	10,071	1,061	9,010
United States	7,677	6,012	8,138	21,827	5,099	16,728
Japan	8,291	5,441	375	14,107	1	14,106

Credit risk continued

Key IFRS 9 terms and differences to the prior IAS accounting standard and regulatory framework (audited)

Attribute	IFRS 9	IAS 39	Regulatory (CRR)
Default/credit impairment	management applies a default definition that is consistent with the Basel/regulatory definition of default.	financial assets where an impairment event had taken place 100% probability of defau and an internal asset quality grade of AQ10 were classed as non-performing.	RBS considers that the customer is unlikely to pay its credit obligations without recourse by the institution to
	measurement differs because of the application of MES. Assets that were categorised as potential	Impaired financial assets were those for which there was objective evidence that the amount or timing of future cash flows had been adversely	actions such as realising security; The customer is past due more than 90 days. For Personal exposures, the definition of default may be applied at the level of an individual credit facility rather than in relation to the total obligations of a borrower.
Probability of default (PD)	prevailing economic conditions at the reporting	in time metrics were used in the latent provision calculation.	The likelihood that a customer will fail to make full and timely repayment of credit obligations over a one year time horizon. For Wholesale, PD models reflect losses that would arise through-the-cycle; this represents a long run average view of default levels.
			For Personal, the prevailing economic conditions at the reporting date (point-in-time) are used.
Significant increase in credit risk (SICR)	A framework incorporating both quantitative and qualitative measures aligned to the Group's curren risk management framework has been established. Credit deterioration will be a management decision, subject to approval by governing bodies such as the Provisions Committee.		Not applicable.

	The staging assessment requires a definition of when a SICR has occurred; this moves the loss calculation for financial assets from a 12 month horizon to a lifetime horizon. Management has established an approach that is primarily informed by the increase in lifetime probability of default, with additional qualitative measures to account for assets where PD does not move, but a high risk factor is determined.		
Forward-looking and multiple scenarios	The evaluation of future cash flows, the risk of default and impairment loss should take into account expectations of economic changes that are reasonable.	Financial asset carrying values based upon the expectation of future cash flows.	Not applicable.
	More than one outcome should be considered to ensure that the resulting estimation of impairment is not biased towards a particular expectation of economic growth.		

Credit risk continued

Key IFRS 9 terms and differences to the prior IAS accounting standard and regulatory framework (audited)

Attribute	IFRS 9	IAS 39	Regulatory (CRR)
Loss given default (LGD)	LGD is a current assessment of the amount that will be recovered in the event of default, taking account of future conditions. It may occasionally equate to the regulatory view albeit with conservatism and downturn assumptions generally removed.	Regulatory LGD values were often used for calculating collective and latent provisions; bespoke LGDs were also used.	An estimate of the amount that will not be recovered in the event of default, plus the cost of debt collection activities and the delay in cash recovery. LGD is a downturn based metric, representing a prudent view of recovery in adverse economic conditions.
Exposure at default (EAD)	Expected balance sheet exposure at default. It differs from the regulatory method as follows: It includes the effect of amortisation; and It caps exposure at the contractual limit.	balance plus future committed drawdowns.	Models are used to provide estimates of credit facility utilisation at the time of a customer default, recognising that customers may make further drawings on unused credit facilities prior to default or that exposures may increase due to market movements. EAD cannot be lower than the reported balance sheet, but can be reduced by a legally enforceable netting agreement.
Date of initial recognition	The reference date used to assess a significant increase in credit risk is as follows. Term lending: the date the facility became available to the customer. Wholesale revolving products: the date of the last substantive credit review (typically annual) or, if later, the date facility became available to the customer. Retail Cards: the account opening date or, if later, the date the card was subject to a regular three year review or the date of any subsequent limit increases. Current accounts/overdrafts: the account opening date or, if later, the date of initial granting of overdraft facility or of limit increases.	Not applicable for impairment but defined as the date when the entity becomes a party to the contractual provisions of the instrument.	Not applicable.

Mod		flows of a financial asset are renegotiated or otherwise modified and the renegotiation or modification does not result in derecognition. A modification requires immediate recognition in the	Modification was not separately defined but accounting impact arose as an EIR adjustment on changes that were not derecognition or impairment events.	Not applicable.
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Market risk

RBS is exposed to non-traded market risk through its banking activities and to traded market risk through its trading activities. Non-traded and traded market risk exposures are managed separately. As a result, each type of market risk is discussed separately. The non-traded market risk section begins below. The traded market risk section begins on page 169.

Pension-related activities also give rise to market risk. Refer to page 172 for more information on risk related to pensions.

Non-traded market risk

Definition

Non-traded market risk is the risk to the value of assets or liabilities outside the trading book, or the risk to income, that arises from changes in market prices such as interest rates, foreign exchange rates and equity prices, or from changes in managed rates.

The following disclosures in this section are audited:

- Internal banking book VaR.
- Foreign exchange risk.
- Equity risk.

Sources of risk

RBS s non-traded market risk exposure is largely managed in line with the following key categories: interest rate risk; credit spread risk; foreign exchange risk; equity risk; and accounting volatility risk.

Interest rate risk

Non-traded interest rate risk (NTIRR) arises from the provision to customers of a range of banking products with differing interest rate characteristics. When aggregated, these products form portfolios of assets and liabilities with varying degrees of sensitivity to changes in market interest rates. Mismatches can give rise to volatility in net interest income as interest rates vary. NTIRR comprises three primary risk types: gap risk, basis risk and option risk.

Credit spread risk

Credit spread risk arises from the potential adverse economic impact of a change in the spread between bond yields and swap rates, where the bond portfolios are accounted at fair value through equity.

Foreign exchange risk

Non-traded foreign exchange risk arises from two main sources:

- Structural foreign exchange risk arises from the capital deployed in foreign subsidiaries, branches and joint arrangements and related currency funding where it differs from sterling.
- Non-trading book foreign exchange risk arises from customer transactions and profits and losses that are in a currency other than the functional currency of the transacting operation.

Equity risk

Non-traded equity risk is the potential variation in income and reserves arising from changes in the values of equity positions. Equity exposures may arise through strategic acquisitions, venture capital investments and certain restructuring arrangements.

Accounting volatility risk

Accounting volatility risk arises when an exposure is accounted for at amortised cost but economically hedged by a derivative that is accounted for at fair value. Although this is not an economic risk, the difference in accounting between the exposure and the hedge creates volatility in the income statement.

Key developments in 2018

- Interest rates rose in 2018 but remained low by historical standards. The UK base rate rose from 0.5% to 0.75% in August 2018. The five-year swap rate was 1.22% at 31 December 2018 compared to 0.98% at 31 December 2017.
- Sterling weakened against the US dollar and slightly against the euro over the year.
- . The persistence of low interest rates and weaker sterling partly reflected uncertainty over Brexit.
- Compliance with ring-fencing regulations resulted in the split of non-traded market risk management responsibility for NatWest Holdings and
 its subsidiaries from non-ring-fenced companies.
- Changes in accounting treatment under IFRS 9, which took effect from 1 January 2018, had an impact on the way certain non-traded market risk exposures are calculated. Some structured loans were recognised at fair value through the profit and loss on transition to IFRS 9. However, this exposure had declined by the end of the year, mainly due to asset disposals.

Risk governance

Responsibility for identifying, measuring, monitoring and controlling market risk arising from non-trading activities lies with the relevant business. Oversight is provided by the independent Risk function.

Risk positions are reported monthly to the Executive Risk Committee and quarterly to the Board Risk Committee, as well as to the Asset & Liability Management Committee (monthly in the case of interest rate, credit spread and accounting volatility risks and quarterly in the case of foreign exchange and equity risks).

Market risk policy statements set out the governance and risk management framework.

Risk appetite

RBS s qualitative appetite is set out in the non-traded market risk appetite statement.

Its quantitative appetite is expressed in terms of value-at-risk (VaR), stressed value-at-risk (SVaR), sensitivity and stress limits, and earnings-at-risk limits. These limits comprise both board risk measures (which are approved by the RBS Board on the recommendation of the Board Risk Committee) and key risk measures, which are approved by the Asset & Liability Management Committee.

The limits are reviewed to reflect changes in risk appetite, business plans, portfolio composition and the market and economic environments.

To ensure approved limits are not breached and that RBS remains within its risk appetite, triggers at RBS and lower levels have been set and are actively managed.

For further information on risk appetite, refer to page 104.

Risk controls

For information on risk controls, refer to page 104.

Risk monitoring and mitigation

Interest rate risk

NTIRR factors are grouped into the following categories:

- Gap risk arises from the timing of rate changes in non-trading book instruments. The extent of gap risk depends on whether changes to the term structure of interest rates occur consistently across the yield curve (parallel risk) or differentially by period (non-parallel risk).
- Basis risk captures the impact of relative changes in interest rates for financial instruments that have similar tenors but are priced using different interest rate indices, or on the same interest rate indices but with different tenors.
- Option risk arises from option derivative positions or from optional elements embedded in assets, liabilities and/or off-balance sheet items, where RBS or its customer can alter the level and timing of their cash flows. Option risk also includes pipeline risk.

Due to the long-term nature of many retail and commercial portfolios and their varied interest rate repricing characteristics and maturities net interest income is likely to vary from period to period, even if interest rates remain the same. New business originated in any period will alter RBS s interest rate sensitivity if the resulting portfolio differs

Non-traded market risk continued

from portfolios originated in prior periods, depending on the extent to which exposure has been hedged. To manage exposures within appetite, RBS aggregates its interest rate positions and hedges these externally using cash and derivatives (primarily interest rate swaps).

Credit spread risk

RBS s bond portfolios primarily comprise high-quality securities maintained as a liquidity buffer to ensure RBS can continue to meet its obligations in the event that access to wholesale funding markets is restricted. Additionally other high-quality bond portfolios are held for collateral purposes and to support payment systems.

Credit spread risk is monitored daily through sensitivities and VaR measures. The dealing authorities in place for the bond portfolios further mitigate the risk by imposing constraints by duration, asset class and credit rating. Exposures and limit utilisations are reported to senior management on a daily basis.

Foreign exchange risk

The only material non-traded open currency positions are the structural foreign exchange exposures arising from investments in foreign subsidiaries, branches and associates and their related currency funding. These exposures are assessed and managed to predefined risk appetite levels under delegated authority from the Asset & Liability Management Committee. RBS seeks to limit the potential volatility impact on its CET1 ratio from exchange rate movements by maintaining a structural open currency position. Gains or losses arising from the retranslation of net investments in overseas operations are recognised in equity reserves and reduce the sensitivity of capital ratios to foreign exchange rate movements primarily arising from the retranslation of non-sterling-denominated RWAs. Sensitivity is minimised where, for a given currency, the ratio of the structural open position to RWAs equals the CET1 ratio.

The sensitivity of this ratio to exchange rates is monitored monthly and reported to the Asset & Liability Management Committee at least quarterly. Foreign exchange exposures arising from customer transactions are sold down by businesses on a regular basis in line with RBS policy.

Equity risk

Non-traded equity risk is the potential variation in the income and reserves arising from changes in equity valuations. Any such risk is identified prior to any investments and then mitigated through a framework of controls.

Investments, acquisitions or disposals of a strategic nature are referred to the Acquisitions & Disposals Committee. Once approved by the Acquisitions & Disposals Committee for execution, such transactions are referred for approval to the Board, the Executive Committee, the Chief Executive, the Chief Financial Officer or as otherwise required. Decisions to acquire or hold equity positions in the non-trading book that are not of a

strategic nature, such as customer restructurings, are taken by authorised persons with delegated authority under the credit approval framework.

Accounting volatility risk

Accounting volatility can be mitigated through hedge accounting. The profit and loss impact of the derivatives can be mitigated by marking the exposure to market. However, volatility will remain in cases where accounting rules mean that hedge accounting is not an option. Accounting volatility risk is reported to the Asset & Liability Management Committee monthly and capitalised as part of the Internal Capital Adequacy Assessment Process.

Risk measurement

The market risk exposures arising as a result of RBS s retail and commercial banking activities are measured using a combination of value-based metrics (VaR and sensitivities) and earnings-based metrics, as explained in greater detail for each of the exposure types discussed in this section. The following table presents one-day internal banking book VaR at a 99% confidence level, split by risk type.

	2018				2017			
	Average	Maximum	Minimum Po	Minimum Period end		Maximum	Minimum P	eriod end
	£m	£m	£m	£m	£m	£m	£m	£m
Interest rate	14.4	28.2	7.3	11.6	9.1	15.3	5.6	5.6
Euro	2.1	3.9	1.0	1.0	3.3	4.3	2.3	3.3
Sterling	14.5	26.0	7.9	13.3	6.3	13.8	1.8	2.8
US dollar	4.7	8.7	1.4	8.7	5.5	8.8	2.1	7.7
Other	0.5	0.7	0.3	0.7	1.0	1.1	0.8	8.0
Credit spread	59.7	77.8	49.4	77.8	60.6	82.4	47.4	49.7
Structural foreign exchange rate	13.4	32.7	5.9	13.0	12.4	17.2	9.3	15.4
Pipeline risk (1)	0.6	1.3	0.3	0.4	0.9	1.7	0.2	1.0
Diversification (2)	(24.9)			(20.5)	(19.2)			(17.3)
Total	63.0	82.3	54.9	82.3	63.8	83.1	54.4	54.4

Notes:

- (1) Pipeline risk is the risk of loss arising from personal customers owning an option to draw down a loan typically a mortgage at a committed rate, where interest rate changes may result in greater or fewer customers than anticipated taking up the committed offer.
- (2) RBS benefits from diversification across various financial instrument types, currencies and markets. The extent of the diversification benefit depends on the correlation between the assets and risk factors in the portfolio at a particular time. The diversification factor is the sum of the VaR on individual risk types less the total portfolio VaR.

Key points (audited)

- On average, non-traded VaR remained broadly unchanged year on year.
- The main component of the VaR is credit spread risk. VaR peaked at year-end, mainly driven by higher volatility in credit spreads due to economic uncertainty that affected the UK Gilts portfolio.
- Interest rate VaR peaked in January driven by the impact of transition to IFRS 9 on interest rate exposure in the structured loan portfolio. It subsequently declined, driven by additional hedging put in place during H1 2018 and asset disposals during H2 2018.

• Structural foreign exchange rate VaR peaked in H1 2018. The VaR measures the residual spot sensitivity of the CET1 ratio to exchange rate movements. CET1 ratio sensitivity to the sterling/US dollar exchange rate increased in May when foreign exchange rate options were exercised to hedge additional US dollar liabilities that were recognised when the agreement in principle with the US Department of Justice was reached.

Non-traded market risk continued

Structural hedging

RBS has the benefit of a significant pool of stable, non and low interest-bearing liabilities, principally comprising equity and money transmission accounts. These balances are usually hedged, either by investing directly in longer-term fixed-rate assets (such as fixed-rate mortgages or UK government Gilts) or by using interest rate swaps, which are generally booked as cash flow hedges of floating-rate assets, in order to provide a consistent and predictable revenue stream.

After hedging the net interest rate exposure externally, RBS allocates income to equity or products in structural hedges by reference to the relevant interest rate swap curve. Over time, this approach has provided a basis for stable income attribution to products and interest rate returns. The programme aims to track a time series of medium-term swap rates, but the yield will be affected by changes in product volumes and RBS s capital composition.

The table below presents the incremental income allocation (above three-month LIBOR), total income allocation (including three-month LIBOR), the period end and average notional balances and the total yield (including three-month LIBOR) associated with the structural hedges managed by RBS.

	2018				2017					
	Incremental	TotalPeriod end		Average	Average Total		TotalPeriod end		Average	Total
	income	income	notional	notional	yield	income	income	notional	notional	yield
	£m	£m	£bn	£bn	%	£m	£m	£bn	£bn	%
Equity structural hedging	469	672	29	29	2.33	628	703	28	28	2.48
Product structural hedging	368	1,104	110	108	1.02	680	1,027	107	101	1.02
Other structural hedges	89	167	22	22	0.77	147	165	21	20	0.83
Total	926	1,943	161	159	1.22	1,455	1,895	156	149	1.27

Equity structural hedges refer to income allocated primarily to equity and reserves. This includes NatWest Markets Plc and NatWest Holdings. Product structural hedges refer to income allocated to customer products, for example current accounts, in NatWest Holdings. Other structural hedges refer to hedges managed by the subsidiaries (Private Banking, Ulster Bank Limited, UBIDAC and RBSI). A significant proportion of Other structural hedges are euro-denominated.

The table below presents the incremental income associated with product structural hedges at segment level. (Restated: see Note 4 for details)

	2018	2017
	£m	£m
UK Personal Banking	166	303

Commercial Banking	200	372
Other	2	5
Total	368	680

Key points

- The incremental income from the structural hedge was lower than that in 2017 primarily due to the increase in three-month LIBOR during 2018. The overall yield of the hedge was relatively stable.
- Five-year and ten-year sterling swap rates at 31 December 2018 were 1.22% and 1.35%, respectively. Equity structural hedges amortise over ten years whilst product hedges amortise over five years. Other structural hedges also amortise over five years except a small proportion of RBSI s hedge which amortises over ten years.
- Compliance with ring-fencing regulations during H2 2018 resulted in a split of the equity structural hedge between NatWest Holdings and NatWest Markets. Approximately £6 billion of the equity hedge was allocated to NWM Plc in 2018.
- Additionally, as a result of ring-fencing legislation, RBSI is not able to hedge with NatWest Holdings. Instead of placing hedges with NatWest Holdings Treasury, RBSI now hedges its structural exposure with bonds, primarily UK government Gilts.

Non-traded market risk continued

Interest rate risk

NTIRR can be measured from either an economic value-based or earnings-based perspective, or a combination of the two. Value-based approaches measure the change in value of the balance sheet assets and liabilities over a longer timeframe, including all cash flows. Earnings-based approaches measure the potential short-term (generally one-year) impact on the income statement of changes in interest rates.

RBS uses VaR as its value-based approach and sensitivity of net interest income (NII) as its earnings-based approach.

These two approaches provide different yet complementary views of the impact of interest rate risk on the balance sheet at a point in time. The scenarios employed in the NII sensitivity approach incorporate business assumptions and simulated modifications in customer behaviour as interest rates change. In contrast, the VaR approach assumes static underlying positions and therefore does not provide a dynamic measurement of interest rate risk. In addition, while NII sensitivity calculations are measured to a 12-month horizon and thus provide a shorter-term view of the risks on the balance sheet, the VaR approach can identify risks not captured in the sensitivity analysis, in particular the impact of duration and repricing risk on earnings beyond 12 months.

Value-at-risk

VaR is a statistical estimate of the potential change in the market value of a portfolio (and, thus, the impact on the income statement) over a specified time horizon at a given confidence level.

RBS s standard VaR metrics which assume a time horizon of one trading day and a confidence level of 99% are based on interest rate repricing gaps at the reporting date. Daily rate moves are modelled using observations from the last 500 business days. These incorporate customer products plus associated funding and hedging transactions as well as non-financial assets and liabilities. Behavioural assumptions are applied as appropriate.

The non-traded interest rate risk VaR metrics for RBS s retail and commercial banking activities are included in the banking book VaR table on page 165. The VaR captures the risk resulting from mismatches in the repricing dates of assets and liabilities.

It includes any mismatch between structural hedges and stable non and low interest-bearing liabilities such as equity and money transmission accounts as regards their interest rate repricing behavioural profile.

Sensitivity of net interest earnings

Net interest earnings are sensitive to changes in the level of interest rates because changes to coupons on some customer products do not always match changes in market rates of interest or central bank policy rates.

Earnings sensitivity to rate movements is derived from a central forecast over a 12-month period. A simplified scenario is shown below based on the period-end balance sheet (assuming that non-interest rate variables remain constant). Market-implied forward rates are used to generate the base case earnings forecast, which is then subject to interest rate shocks. The variance between the central forecast and the shock gives an indication of underlying sensitivity to interest rate movements.

The sensitivity of net interest earnings table shows the expected impact, over 12 months, to an immediate upward or downward change of 25 and 100 basis points to all interest rates. Yield curves are expected to move in parallel though interest rates are assumed to floor at zero per cent or, for euro rates, at the current negative rate.

The main driver of earnings sensitivity relates to interest rate pass-through assumptions on customer products. The scenario also captures the impact of the reinvestment of maturing structural hedges at higher or lower rates than the base-case earnings sensitivity and mismatches in the repricing dates of loans and deposits.

However, reported sensitivities should not be considered a guide to future performance. They do not capture potential management action in response to sudden changes in the interest rate environment. Actions that could reduce NII sensitivity and mitigate adverse impacts are changes in pricing strategies on customer loans and deposits as well as hedging. Management action may also be targeted at stabilising total income taking into account non-interest income in addition to NII.

	Parallel shifts in yield curve						
	+25 basis	-25 basis	+100 basis	-100 basis			
	points	points	points	points			
2018	£m	£m	£m	£m			
Euro	29	(3)	114	(1)			
Sterling	152	(201)	651	(717)			
US dollar	15	(8)	63	(42)			
Other	1	2	2	3			
Total	197	(210)	830	(757)			
2017							
Euro	13	(8)	53	(11)			
Sterling	151	(218)	664	(504)			
US dollar	14	(13)	58	(49)			
Other		(4)		(7)			
Total	178	(243)	775	(571)			

Key point

• Net interest earnings sensitivity to a 100-basis-point downward shift in yield curves rose in 2018 compared to 2017. In the shock scenarios, rates fell further at 31 December 2018 than at 31 December 2017 before hitting an assumed zero per cent floor on interest rates. This was mainly due to rises in short-term cash rates since December 2017, which increased the impact of the rate shock. This effect was not seen in the 25-basis-point downward shift as most rates remain above zero per cent after the interest rate shock.

Non-traded market risk continued

The tables below show the net interest earnings sensitivity on a one-year, two-year and three-year forward-looking basis to a parallel upward or downward shift in interest rates of 25 basis points. The projection is a simplified sensitivity in which the balance sheet is assumed to be constant, with no change in customer behaviour or margin management strategy as a result of rate changes. The benefit of structural hedges increases (or decreases) as maturing hedges are reinvested over the three-year period.

	+25 basis points parallel upward shift				-25 basis points parallel downward shift		
	Year 1	Year 2 (1)	Year 3 (1)	Year 1	Year 2 (1)	Year 3 (1)	
2018	£m	£m	£m	£m	£m	£m	
Structural hedges	32	98	170	(32)	(98)	(167)	
Managed margin (2)	150	171	170	(177)	(189)	(163)	
Other	15			(2)			
Total	197	269	340	(210)	(287)	(330)	
2017							
Structural hedges	33	100	171	(33)	(99)	(171)	
Managed margin (2)	153	170	178	(220)	(137)	(121)	
Other	(8)			10			
Total	178	270	349	(243)	(236)	(292)	

Notes:

- (1) The projections for Year 2 and Year 3 consider only the main drivers of earnings sensitivity, namely structural hedging and margin management.
- (2) Primarily current accounts and savings accounts.

Sensitivity of fair value through other comprehensive income (FVOCI) and cash flow hedging reserves to interest rate movements.

RBS holds most of the bonds in its liquidity portfolio at fair value. Valuation changes that are not hedged (or not in effective hedge accounting relationships) are recognised in FVOCI reserves. This is a component of credit spread risk.

Interest rate swaps are used to implement the structural hedging programme and also hedging of some personal and commercial lending portfolios, primarily fixed rate mortgages. Generally these swaps are booked in hedge accounting relationships. Changes in the valuation of swaps that are in effective cash flow hedge accounting relationships are recognised in cash flow hedge reserves.

The table below shows the sensitivity of FVOCI reserves and cash flow hedge reserves to a parallel shift in all rates. In this analysis, interest rates have not been floored at zero. Hedges are assumed to be fully effective. Hedge ineffectiveness would be expected to result in a portion of the reserve gains or losses shown below being recognised in P&L instead of reserves. Hedge ineffectiveness P&L is monitored and the effectiveness of

cash flow and fair value hedge relationships are regularly tested in accordance with IFRS requirements. Note that a movement in the FVOCI reserve would have an impact on CET1 capital but a movement in the cash flow hedge reserve would not be expected to do so. Volatility in both reserves affects tangible net asset value.

	+25 basis points	-25 basis points	+100 basis points	-100 basis points
2018	·		•	'
	£m	£m	£m	£m
FVOCI reserves	(55)	55	(220)	216
Cash flow hedge reserves	(318)	323	(1,250)	1,315
Total	(373)	378	(1,470)	1,531
2017				
FVOCI reserves	(41)	42	(164)	167
Cash flow hedge reserves	(443)	448	(1,744)	1,819
Total	(484)	490	(1,908)	1,986

Key points

- The sensitivity of the cash flow hedge reserve to interest rate movements fell in 2018. In part this reflected an increase in customer demand for longer fixed rates on mortgage products. Customers increasingly opted to fix mortgage rates for five years. This reduced the requirement for five-year interest rate swaps.
- The increase in FVOCI reserve sensitivity was driven by the increase in the bonds held in liquidity portfolios due to the establishment of the NatWest Markets Plc liquid asset buffer as a result of ring-fencing implementation.

Non-traded market risk continued

Foreign exchange risk (audited)

The table below shows structural foreign currency exposures.

			Net				
			investments		Structural		Residual
			in	Net	foreign		structural
	Net						
	investments		foreign		currency		foreign
	in	Non-controlling	operations	investment	exposures	Economic	currency
	foreign	interests (NCI)	excluding		pre-economic	hedges	
	operations	(1)	NCI	hedges	hedges	(2)	exposures
2018	£m	£m	£m	£m	£m	£m	£m
US dollar	553		553	(4)	549	(549)	
Euro	6,428	33	6,395	(853)	5,542		5,542
Other non-sterling	2,600	710	1,890	(1,249)	641	(81)	560
Total	9,581	743	8,838	(2,106)	6,732	(630)	6,102
2017							
US dollar	766		766	(14)	752	(752)	
Euro	7,160	61	7,099	(342)	6,757	(2,224)	4,533
Other non-sterling	2,493	645	1,848	(930)	918	(453)	465
Total	10,419	706	9,713	(1,286)	8,427	(3,429)	4,998

Notes:

- (1) Non-controlling interests (NCI) represents the structural foreign exchange exposure not attributable to owners equity.
- (2) Economic hedges of US dollar net investments in foreign operations represent US dollar equity securities that do not qualify as net investment hedges for accounting purposes. They provide an offset to structural foreign exchange exposures to the extent that there are net assets in overseas operations available. Economic hedges of other currency net investments in foreign operations represent monetary liabilities that are not booked as net investment hedges.

Key points

• The main driver of the reduction in structural foreign currency exposures was lower net investment in eurozone subsidiaries as a result of the 1.5 billion dividend paid by UBI DAC to NatWest Holdings Limited during Q1 2018. The reduction in US dollar exposures reflected the impact of the agreement with the US Department of Justice in relation to RMBS conduct fines.

- Euro economic hedges reduced as a result of the redemption of equity securities.
- Changes in exchange rates affect equity in proportion to structural foreign currency exposures. At 31 December 2018, a 5% strengthening in all foreign currencies against sterling results in a £0.4 billion increase in equity reserves, while a 5% weakening in all foreign currencies against sterling results in a £0.3 billion reduction in equity reserves.

Equity risk (audited)

Equity positions are carried at fair value on the balance sheet based on available market prices where possible. If market prices are not available, fair value is based on appropriate valuation techniques or management estimates.

The table below shows the balance sheet carrying value of non-traded book equity positions.

	2018	2017
	£m	£m
Exchange-traded equity	41	41
Private equity	303	243
Other	87	136
	431	420

The exposures may take the form of (i) equity shares listed on a recognised exchange, (ii) private equity shares defined as unlisted equity shares with no observable market parameters or (iii) other unlisted equity shares.

	2018	2017
	£m	£m
Net realised gains arising from disposals	23	82
Unrealised gains included in Tier 1 or Tier 2 capital	153	60

Note:

(1) Includes gains or losses on FVOCI instruments only.

Traded market risk

Definition

Traded market risk is the risk arising from changes in fair value on positions, assets, liabilities or commitments in trading portfolios as a result of fluctuations in market prices.

The following disclosures in this section are audited:

Traded VaR (1-day 99%)

Sources of risk

Traded market risk mainly arises from RBS s trading activities. These activities provide a range of financing, risk management and investment services to clients including corporations and financial institutions around the world. From a market risk perspective, activities are focused on rates; currencies; securitised products; and traded credit. RBS undertakes transactions in financial instruments including debt securities, as well as securities financing and derivatives.

All material traded market risk resides in NatWest Markets. The key categories are interest rate risk, credit spread risk and foreign currency price risk.

Trading activities may also give rise to counterparty credit risk. For further detail refer to the Credit risk section on page 123.

Key developments in 2018

- Geopolitical risk resulted in periods of market volatility during the year. This mainly related to threats of a trade war between China and the US, elections in Italy and negotiations on a Brexit deal. European interest rates remained at low levels, although the Bank of England and US Federal Reserve continued raising rates.
- Traded VaR fluctuated throughout 2018, reflecting political developments and geopolitical risk, but remained broadly unchanged on an average basis compared to 2017.

Risk governance

Responsibility for identifying, measuring, monitoring and controlling market risk arising from trading activities lies with the relevant trading business. Oversight is provided by the Market Risk function. Traded market risk positions are reported monthly to the Executive Risk Committee and quarterly to the Board Risk Committee. Market risk policy statements set out the governance and risk management framework.

Risk appetite

RBS s qualitative appetite for traded market risk is set out in the traded market risk appetite statement. Quantitative appetite is expressed in terms of exposure limits. The limit framework at RBS level comprises value-at-risk (VaR) and stressed value-at-risk (SVaR). More details on these are provided on the following pages.

The limit framework at trading unit level also comprises additional metrics specific to the market risk exposures within its scope. These additional metrics aim to control various risk dimensions such as product type, exposure size, aged inventory, currency and tenor. For each trading business, a document known as a dealing authority compiles details of all applicable limits and trading restrictions.

The limits are reviewed to reflect changes in risk appetite, business plans, portfolio composition and the market and economic environments. To ensure approved limits are not breached and that RBS remains within its risk appetite, triggers at RBS and lower levels have been set such that if exposures exceed a specified level, action plans are developed by the relevant business and the Market Risk function and implemented.

For more detail on risk appetite, refer to page 104.

Risk controls

For information on risk controls, refer to page 104.

Risk monitoring and mitigation

Traded market risk is identified and assessed by gathering, analysing, monitoring and reporting market risk information at desk, business, franchise and RBS-wide levels. Industry expertise, continued system developments and techniques such as stress testing are also used to enhance the effectiveness of the identification and assessment of all material market risks.

Traded market risk exposures are monitored against limits and analysed daily by market risk reporting and control functions. A daily report summarising the position of exposures against limits at RBS, franchise, business and desk levels is provided to senior management and market risk managers across the function. Limit reporting is supplemented with regulatory capital and stress testing information as well as ad hoc reporting.

A risk review of trading businesses is undertaken weekly with senior risk and front office staff. This includes a review of profit and loss drivers, notable position concentrations and other positions of concern.

Business profit and loss performance is monitored automatically through loss triggers which, if breached, require a remedial action plan to be agreed between the Market Risk function and the business. The loss triggers are set using both a fall-from-peak approach and an absolute loss level. In addition, regular updates on traded market risk positions are provided to the Executive Risk Committee and Board Risk Committee.

Risk measurement (audited)

RBS uses VaR, SVaR and the incremental risk charge to measure traded market risk. Risks that are not adequately captured by VaR or SVaR are captured by the Risks Not In VaR (RNIV) framework to ensure that RBS is adequately capitalised for market risk. In addition, stress testing is used to identify any vulnerabilities and potential losses in excess of VaR and SVaR.

The key inputs into these measurement methods are market data and risk factor sensitivities. Sensitivities refer to the changes in trade or portfolio value that result from small changes in market parameters that are subject to the market risk limit framework. Revaluation ladders are used in place of sensitivities to capture the impact of large moves in risk factors or the joint impact of two risk factors.

These methods have been designed to capture correlation effects and allow RBS to form an aggregated view of its traded market risk across risk types, markets and business lines while also taking into account the characteristics of each risk type.

Value-at-risk

For internal risk management purposes, VaR assumes a time horizon of one trading day and a confidence level of 99%.

The internal VaR model which captures all trading book positions including those products approved by the regulator is based on a historical simulation, utilising market data from the previous 500 days on an equally-weighted basis.

The model also captures the potential impact of interest rate risk; credit spread risk; foreign currency price risk; equity price risk; and commodity price risk.

When simulating potential movements in such risk factors, a combination of absolute, relative and rescaled returns is used.

Testing of the performance and adequacy of the VaR model is done on a regular basis through the following processes:

- Back-testing Internal and regulatory back-testing is conducted on a daily basis. (For information on internal back-testing, refer to page 171.)
- Ongoing model validation VaR model performance is assessed both regularly and on an ad-hoc basis if market conditions or portfolio profile change significantly.
- Model Risk Management review As part of the model lifecycle, all risk models (including the VaR model) are independently reviewed to ensure the model is still fit for purpose given current market conditions and portfolio profile.

Traded market risk continued

One-day 99% traded internal VaR

Traded VaR (1-day 99%)

The table below shows one-day 99% internal VaR for RBS s trading portfolios, split by exposure type.

	2018				2017			
				Period				Period
	Average	Maximum	Minimum	end	Average	Maximum	Minimum	end
	£m	£m	£m	£m	£m	£m	£m	£m
Interest rate	14.3	27.3	9.2	13.0	14.1	24.5	8.8	15.3
Credit spread	11.0	24.2	6.9	8.2	12.1	19.4	8.8	16.7
Currency	3.1	7.6	1.4	5.3	4.9	10.0	2.3	3.5
Equity	0.8	1.6	0.3	0.8	1.2	2.1	0.4	0.4

Commodity	0.3	1.0	0.1	0.1	0.4	1.3		0.2
Diversification (1)	(10.5)			(8.8)	(12.8)			(15.3)
Total	19.0	35.6	11.7	18.6	19.9	29.5	13.2	20.8

Note:

(1) RBS benefits from diversification since it reduces risk by allocating positions across various financial instrument types, currencies and markets. The extent of the diversification benefit depends on the correlation between the assets and risk factors in the portfolio at a particular time. The diversification factor is the sum of the VaR on individual risk types less the total portfolio VaR.

Key points

- Although traded VaR fluctuated throughout 2018 as explained earlier, it remained broadly unchanged year-on-year on both an average and period-end basis.
- The peaks in January, May and July were largely related to bond syndication activity and, in the case of January, long euro rates.

Traded market risk continued

VaR back-testing

The main approach employed to assess the VaR model songoing performance is back-testing, which counts the number of days when a loss exceeds the corresponding daily VaR estimate, measured at a 99% confidence level.

Two types of profit and loss (P&L) are used in back-testing comparisons: Actual P&L and Hypothetical (Hypo) P&L.

The Actual P&L for a particular business day is the firm s actual P&L in respect of trading activities, including intraday activities, adjusted by stripping out fees and commissions, brokerage, and additions to and releases from reserves not directly related to market risk.

The Hypo P&L reflects the firm s Actual P&L excluding any intra-day activities.

A portfolio is said to produce a back-testing exception when the Actual or Hypo P&L exceeds the VaR level on a given day. Such an event may be caused by a large market movement or may highlight issues such as missing risk factors or inappropriate time series. Any such issues identified are analysed and addressed through appropriate remediation or development action. Both Actual and Hypo back-testing exceptions are monitored.

The table below shows internal back-testing exceptions for the 250-business-day period to 31 December 2018 for one-day 99% traded internal VaR compared with Actual and Hypo P&L for the major NatWest Markets businesses.

Back-testing exceptions
Actual Hypo
Rates
Currencies
Credit

Key points

- Statistically RBS would expect to see back-testing exceptions 1% of the time over the 250-day period.
- The exceptions in the Rates business were mainly driven by the increased volatility connected with large market movements due to political uncertainty in Italy and Spain.

The exceptions in the Currencies business were mainly due to market movements.

Stressed VaR (SVaR)

As with VaR, the SVaR methodology produces estimates of the potential change in the market value of a portfolio, over a specified time horizon, at a given confidence level. SVaR is a VaR-based measure using historical data from a one-year period of stressed market conditions.

A simulation of 99% VaR is run on the current portfolio for each 250-day period from 2005 to the current VaR date, moving forward one day at a time. The SVaR is the worst VaR outcome of the simulated results.

This is in contrast with VaR, which is based on a rolling 500-day historical data set. A time horizon of ten trading days is assumed with a confidence level of 99%.

The internal traded SVaR model captures all trading book positions.

10-day 99% traded internal SVaR

Key point

Traded SVaR remained broadly unchanged.

Risks not in VaR (RNIVs)

The RNIV framework is used to identify and quantify market risks that are not fully captured by the internal VaR and SVaR models.

RNIV calculations form an integral part of ongoing model and data improvement efforts to capture all market risks in scope for model approval in VaR and SVaR.

For quantitative disclosures on RNIVs, refer to the Market Risk section of the Pillar 3 Report.

Stress testing

For information on stress testing, refer to page 105.

Incremental risk charge (IRC)

The IRC model quantifies the impact of rating migration and default events on the market value of instruments with embedded credit risk (in particular, bonds and credit default swaps) held in the trading book. It further captures basis risk between different instruments, maturities and reference entities.

Model validation

RBS uses a variety of models to manage and measure market risk. These include pricing models (used for valuation of positions) and risk models (for risk measurement and capital calculation purposes). They are developed and approved in NatWest Markets, with material models subject to independent review by Model Risk Management. For further detail on the independent model validation carried out by Model Risk Management refer to page 105. Information relating to pricing and market risk models is presented below.

Pricing models

Pricing models are developed by a dedicated first line team, in conjunction with the trading desk. The models are used to value positions for which prices are not directly observable as well as for the risk management of the portfolio. Any pricing models that are used as the basis for valuing portfolios and records are subject to approval and oversight by asset-level modelled product review committees. These committees comprise representatives of the trading, finance, market risk, model development and model review functions. Approval requires review and approval by these stakeholders as well as Model Risk Management.

The review process includes the following steps:

- The committees prioritise models for review by Model Risk Management, considering the materiality of the risk booked against the model and an assessment of the degree of model risk, which is the valuation uncertainty arising from the choice of modelling assumptions.
- Model Risk Management quantifies the model risk, which may include comparing the model outputs with those of alternative models developed by Model Risk Management.
- The sensitivities derived from the pricing models are validated.
- The conclusions of the review are used to inform risk limits and by the Finance function to inform model reserves.

Risk models

All model changes are approved through model governance committees at franchise level. Changes to existing models are subject to Model Risk Management review. RBS follows regulatory guidance for assessing the materiality of extensions and changes to the internal model approach for market risk. In addition to Model Risk Management s independent oversight which provides additional assurance that RBS holds appropriate capital for the market risk to which it is exposed the model testing team monitors the model performance for market risk through back-testing and other processes.

Pension risk

Definition

Pension obligation risk is the risk to RBS caused by its contractual or other liabilities to, or with respect to, a pension scheme (whether established for its employees or those of a related company or otherwise). It is also the risk that RBS will make payments or other contributions to, or with respect to, a pension scheme because of a moral obligation or because RBS considers that it needs to do so for some other reason.

Sources of risk

RBS has exposure to pension risk through its defined benefit schemes worldwide. The Main section of The Royal Bank of Scotland Group Pension Fund (the Main section) is the largest source of pension risk with £43.8 billion of assets and £35.5 of liabilities at 31 December 2018 (2017 £44.7 billion assets and £37.9 billion liabilities). Further detail on RBS s pension obligations, including sensitivities to the main risk factors, can be found in Note 5 on the consolidated accounts.

Pension scheme liabilities vary with changes in long-term interest rates and inflation as well as with pensionable salaries, the longevity of scheme members and legislation. Pension scheme assets vary with changes in interest rates, inflation expectations, credit spreads, exchange rates, and equity and property prices. RBS is exposed to the risk that the schemes assets, together with future returns and additional future contributions, are insufficient to meet liabilities as they fall due. In such circumstances, RBS could be obliged (or might choose) to make additional contributions to the schemes, or be required to hold additional capital to mitigate this risk.

Key developments in 2018

- A Memorandum of Understanding between RBS and the Trustee of the Main section was reached in April 2018, which enabled RBS to bring the pension scheme into alignment with ring-fencing rules and reduce exposure to pension risk.
- RBS made a £2 billion contribution to the Main section in H2 2018 and it was agreed this could be followed by up to a further £1.5 billion of dividend linked contributions to be paid from 2020, capped at £500 million per year.
- The contribution to the scheme facilitated a reduction in the risk profile of the fund, principally the sale of approximately £6 billion of quoted equity exposure and the purchase of further interest rate and inflation hedging.

Risk governance

The Pension Committee is chaired by the RBS Chief Financial Officer. It receives its authority from the Group Executive Committee and formulates RBS s view of pension risk. The Pension Committee is a key component of RBS s approach to managing pension risk and it reviews and monitors risk management, asset strategy and financing issues on behalf of RBS. It also considers investment strategy proposals from the Trustee.

For further information on Risk governance, refer to page 103.

Risk appetite

RBS maintains an independent view of the risk inherent in its pension funds. RBS has an annually reviewed pension risk appetite statement incorporating defined metrics against which risk is measured. RBS undertakes regular pension risk monitoring and reporting to the Board, the Board Risk Committee and the Pension Committee on the material pension schemes that RBS has an obligation to support.

Risk controls

A pension risk management framework is in place to provide formal controls for pension risk reporting, modelling, governance and stress testing. A pension risk policy, which sits within the RBS policy framework, is also in place and is subject to associated framework controls.

Risk monitoring and measurement

Pension risk reports are submitted to the Executive Risk Committee and the Board Risk Committee four times a year in the Risk Management Quarterly Report.

RBS also undertakes stress tests and scenario analyses on its material defined benefit pension schemes each year. These tests are also used to satisfy the requests of regulatory bodies such as the Bank of England. The stress testing framework includes pension risk capital calculations for the purposes of the Internal Capital Adequacy Assessment Process as well as additional stress tests for a number of internal management purposes.

The results of the stress tests and their consequential impact on RBS s balance sheet, income statement and capital position are incorporated into the overall RBS stress test results.

Risk mitigation

The trustee has taken measures to mitigate inflation and interest rate risks, both by investing in suitable financial assets and by entering into inflation and interest rate swaps. The Main section also uses derivatives to manage the allocation of the portfolio to different asset classes and to manage risk within asset classes. The contribution made to the Main section also facilitated a £6 billion reduction in quoted equity exposure and an increase in interest rates and inflation hedging in 2018.

Compliance & conduct risk

Definition

Compliance risk is the risk that the behaviour of RBS towards customers fails to comply with laws, regulations, rules, standards and codes of conduct. Such a failure may lead to breaches of regulatory requirements, organisational standards or customer expectations and could result in legal or regulatory sanctions, material financial loss or reputational damage.

Conduct risk is the risk that the conduct of RBS and its subsidiaries and its staff towards customers or in the markets in which it operates leads to unfair or inappropriate customer outcomes and results in reputational damage, financial loss or both.

Sources of risk

Compliance and conduct risks exist across all stages of RBS s relationships with its customers and arise from a variety of activities including product design, marketing and sales, complaint handling, staff training, and handling of confidential insider information. As set out in Note 27 on the consolidated accounts, RBS and certain members of staff are party to legal proceedings and are subject to investigation and other regulatory action in the UK, the US and other jurisdictions.

Key developments in 2018

- An enhanced compliance and conduct risk framework was developed, setting minimum standards for the management and measurement of compliance and conduct risks across RBS.
- Enhanced product monitoring and reporting was introduced.
- Controls, systems and processes were revised to ensure compliance with the UK s ring-fencing rules.
- PPI remediation continued in advance of the FCA s August 2019 deadline for claims (refer tdNote 20 on the consolidated accounts).
- Work to address legacy GRG complaints continued. The process closed to new complaints in the UK on 22 October 2018.
- Product and pricing continued to be simplified for new and existing customers.

Risk governance

RBS defines appropriate standards of compliance and conduct and ensures adherence to those standards through its risk management framework.

Compliance & conduct risk continued

Risk appetite

Risk appetite for compliance and conduct risks is set at Board level. RBS Risk appetite statements articulate the levels of risk that legal entities, franchises and functions work within when pursuing their strategic objectives and business plans.

Risk controls

RBS operates a range of controls to ensure its business is conducted in accordance with legal and regulatory requirements, as well as delivering good customer outcomes. A suite of policies addressing compliance and conduct risks set appropriate standards across RBS. Examples of these include the Complaints Management Policy, Client Assets & Money Policy, and Product Lifecycle Policy as well as policies relating to customers in vulnerable situations, cross-border activities and market abuse. Continuous monitoring and targeted assurance is undertaken, as appropriate.

Risk monitoring and measurement

Compliance and conduct risks are measured and managed through continuous assessment and reporting to RBS s senior risk committees and at Board level.

The compliance and conduct risk framework facilitates the consistent monitoring and measurement of compliance with laws and regulations and the delivery of consistently good customer outcomes.

The first line of defence is responsible for effective risk identification, reporting and monitoring, with oversight, challenge and review by the second line. Compliance and conduct risk management is also integrated into RBS s strategic planning cycle.

Risk mitigation

Activity to mitigate the most-material compliance and conduct risks is carried out across RBS with specific areas of focus in the customer-facing franchises and legal entities. Examples of mitigation include consideration of customer needs in business and product planning, targeted training, complaints management, as well as independent assurance activity. Internal policies help support a strong customer focus across RBS. Independent assessments of compliance with applicable regulations are also carried out at a legal entity level.

Financial crime

Definition

Financial crime risk is the risk presented by criminal activity in the form of money laundering, terrorist financing, bribery and corruption, sanctions and tax evasion. It does not include fraud risk management.

Sources of risk

Financial crime risk may be presented if RBS s employees, customers or third parties undertake or facilitate financial crime, or if RBS s products or services are used to facilitate such crime. Financial crime risk is an inherent risk across all of RBS s lines of business.

Key developments in 2018

- In March 2018, the Federal Reserve Board terminated a Cease & Desist Order originally imposed in July 2011 for financial crime compliance weaknesses identified across RBS s US businesses and concerns about the level of oversight that the RBS Board of Directors had over large and complex US operations. The termination of the Order followed a multi-year programme of work to establish an enhanced governance and oversight framework, risk management programme and compliance programme.
- In October 2018, the Federal Reserve Board terminated a Cease & Desist Order originally imposed in December 2013. The Order, which related to RBS Group and RBS plc s historical compliance with Office of Foreign Assets Control (OFAC) economic sanctions regulations, was terminated following a multi-year programme of work to establish a robust, sustainable OFAC Sanctions compliance framework.
- While the financial crime governance framework was strengthened during 2018 along with the introduction of enhanced control effectiveness assurance processes, enhancements to existing risk assessment models, the introduction of a new Anti-Tax Evasion risk assessment; and improved monitoring controls and enhanced investigation processes the journey of improvement continues.

Risk governance

Financial crime risk is principally governed through the Financial Crime Risk Executive Committee, which is chaired by the Chief Financial Crime Officer. The committee reviews and, where appropriate, escalates material risks and issues to the Group Executive Risk Committee and the Group Board Risk Committee.

Risk appetite

RBS has no appetite to operate in an environment where systems and controls do not enable RBS to identify, assess, monitor, manage and mitigate financial crime risk. RBS systems and controls must be comprehensive and proportionate to the nature, scale and complexity of its businesses. RBS has no tolerance to systematically or repeatedly breach relevant financial crime regulations and laws.

Risk controls

RBS operates a framework of preventative and detective controls designed to ensure RBS mitigates the risk that it could facilitate financial crime. These controls are supported by a suite of policies, procedures and detailed instructions to ensure they operate effectively.

Risk monitoring and measurement

Financial crime risks are identified and reported through continuous risk management and regular monthly reporting to RBS s senior risk committees and the Board. Quantitative and qualitative data is reviewed and assessed to measure whether financial crime risk is within the Group s risk appetite.

Risk mitigation

Through the financial crime framework, RBS employs relevant policies, systems, processes and controls to mitigate financial crime risk. This would include the use of dedicated screening and monitoring controls to identify people, organisations, transactions and behaviours which might require further investigation or other actions. RBS ensures that centralised expertise is available to detect and disrupt threats to the Group and its customers. Intelligence is shared with law enforcement, regulators and government bodies to strengthen national and international defences against those who would misuse the financial system for criminal motives.

Operational risk

Definition

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or external events. It arises from day-to-day operations and is relevant to every aspect of the business.

Sources of risk

Operational risk may arise from a failure to manage operations, systems, transactions and assets appropriately. This can take the form of human error, an inability to deliver change adequately or on time, the non-availability of technology services, or the loss of customer data. Fraud and theft as well as the increasing threat of cyber attacks are sources of operational risk, as is the impact of natural and man-made disasters. Operational risk can also arise from a failure to account for changes in law or regulations or to take appropriate measures to protect assets.

Operational risk continued

Key developments in 2018

- Risk provided oversight of several bank-wide programmes including the Transformation portfolio, structural reform, European Commission (EC) State Aid obligations and Brexit preparations.
- Key corporate structural reform milestones were delivered, including the implementation of the Financial Services Markets Act Part VII and migration activities to separate the ring-fence bank from the non ring-fenced bank.
- RBS is well positioned to deliver the activities required to support the Business Banking Switch Scheme that is due to commence in 2019, as part of the Group s final EC State Aid obligation.
- RBS has established an Innovation Risk Oversight team to provide bank-wide oversight of its innovation portfolio to help deliver safely and at pace.
- RBS continued to review its well established incident management and coordination procedures to manage the persistent and evolving nature of information and cyber security risks.
- Internal security improvement programmes and controls were developed and strengthened to protect RBS and its customers. RBS uses proactive threat management and intelligence processes to identify, manage and mitigate credible threats.
- RBS continued to reduce and simplify its technology estate through strategic investment and Technology transformation initiatives to limit opportunities for hackers and fraudsters. Improvements in capability were also made to the Security Operations Centre, strengthening controls to prevent data leakage, enhance malware defences and management of user access to key systems.
- The number of critical customer impacting incidents that RBS experiences continues to reduce year-on-year. There were 17 such incidents in 2018 compared to 20 in 2017.
- Internal training programmes ensure all employees are aware of the threats facing RBS and remain vigilant to unauthorised attempts to access systems and data.

Risk governance

A strong operational risk management function is vital to support RBS s ambitions to serve its customers better. Improved management of operational risk against defined appetite directly supports the strategic risk objective of improving stakeholder confidence and is vital for stability and reputational integrity.

The Operational Risk function, which is the second line of defence, delivers a robust operational risk management framework and culture across RBS.

The Operational Risk function is responsible for the execution and continuous improvement of the operational risk management framework.

The Operational Risk Executive Committee (OREC) is responsible for reviewing operational risk exposure; identifying and assessing both current and emerging material operational risks; reviewing and monitoring the operational risk profile; and reviewing and approving material operational risk policy changes.

Risk appetite

Operational risk appetite supports effective management of material operational risks. It expresses the level and types of operational risk RBS is willing to accept to achieve its strategic objectives and business plans.

The Group-wide operational risk appetite statement encompasses the full range of operational risks faced by its legal entities, franchises and functions. A subset of the most material risk appetite measures are defined as board risk measures, which are those that, should the limit be breached, would impact on the ability to achieve business plans and threaten stakeholder confidence.

Risk controls

The Control Environment Certification (CEC) process is a half yearly self-assessment by the CEOs of RBS s franchises and business units, as well as the heads of the support and control functions, providing a view on the adequacy and effectiveness of the internal control environment in a consistent and comparable manner. In line with ring-fencing requirements, from H2 2018 certificates were also produced for the following legal entities: NatWest Holdings Limited; NatWest Markets Plc; The Royal Bank of Scotland International Limited; Ulster Bank Ireland DAC; and Coutts and Co.

CEC covers material risks and the underlying key controls, including financial, operational and compliance controls, as well as supporting risk management frameworks. The CEC outcomes, including forward-looking assessments for the next two half-yearly cycles and progress on control environment improvements, are reported to the Board, Group Audit Committee and Board Risk Committee. They are also shared with external auditors.

The CEC process helps to ensure compliance with the RBS Policy Framework, Sarbanes-Oxley 404 requirements concerning internal control over financial reporting (as referenced in the Compliance report on page 95), and certain requirements of the UK Corporate Governance Code.

Risk monitoring and measurement

Risk and control assessments are used across all business areas and support functions to identify and assess material operational and conduct risks and key controls. All risks and controls are mapped to RBS s Risk Directory. Risk assessments are refreshed at least annually to ensure they remain relevant and capture any emerging risks, with associated trigger processes to ensure risks are reassessed at key periods of change.

The process is designed to confirm that risks are effectively managed and prioritised in line with risk appetite. Controls are tested at the appropriate frequency to verify that they remain fit-for-purpose and operate effectively.

RBS uses the standardised approach to calculate its Pillar 1 operational risk capital requirement. This is based on multiplying three years average historical gross income by coefficients set by the regulator based on business line. As part of the wider Internal Capital Adequacy Assessment Process an operational risk economic capital model is used to assess Pillar 2A, which is a risk-sensitive add-on to Pillar 1. The model uses historical loss data (internal and external) and forward-looking scenario analysis that is provided by Operational Risk to provide a risk-sensitive view of RBS s P2A capital requirement.

Scenario analysis is used to assess how extreme but plausible operational risks will affect RBS. It provides a forward-looking basis for evaluating and managing operational risk exposures.

Refer to the Capital, liquidity and funding risk section for operational risk capital requirement figures.

Event and loss data management

The operational risk event and loss data management process ensures RBS captures and records operational risk financial and non financial events that meet defined criteria. Loss data is used for regulatory and industry reporting and is included in capital modelling when calculating economic capital for operational risk. The most serious events are escalated in a simple, standardised process to all senior management, by way of a Group Notifiable Event Process.

Operational risk continued

All financial impacts associated with an operational risk event are reported against the date they were recorded in RBS s financial accounts. A single event can result in multiple losses (or recoveries) that may take time to crystallise. Losses and recoveries with a financial accounting date in 2018 may relate to events that occurred, or were identified in, prior years. RBS purchases insurance against specific losses and to comply with statutory or contractual requirements.

Percentage and value of events

At 31 December 2018, events aligned to the clients, products and business practices event category accounted for 98% of RBS s operational risk losses (compared to 93% in 2017). The increase reflected new or additional conduct-related provisions recorded during 2018, most notably the US Department of Justice mortgage-backed securities-related settlement.

		Volume of events (1)				
	£m		Proportion		Proportion	
	2018	2017	2018	2017	2018	2017
Fraud	19	28	1%	2%	74%	74%
Clients, products and business practices (2)	1,552	1,264	98%	93%	15%	12%
Execution, delivery and process management	12	58	1%	4%	10%	9%
Employment practices and workplace safety	1	5		1%	1%	5%
	1,584	1,355	100%	100%	100%	100%
Notes:						

- (1) The calculation in the table above is based on the volume and value of events (the proportion and cost of operational risk events to RBS) where the associated loss is more than or equal to £10,000.
- (2) 2017 losses have been restated from £732 million following finalisation of material MBS-related settlements.

Operational resilience

RBS manages and monitors operational resilience through its risk and control assessments methodology. As challenges to operational resilience become more demanding, given a hostile cyber environment and a greater focus on serving customers through digital platforms, RBS is working with supervisory authorities in the UK to ensure the provision of its products and services can be maintained regardless of the cause of disruption.

This is underpinned by setting, monitoring and testing tolerances for key business services, which define the amount of disruption that could be tolerated.

Risk mitigation

Risks are mitigated by applying key preventative and detective controls, an integral step in the risk assessment methodology which determines residual risk exposure. Control owners are accountable for the design, execution, performance and maintenance of key controls. Key controls are regularly assessed for adequacy and tested for effectiveness. The results are monitored and, where a material change in performance is identified, the associated risk is re-evaluated.

Business risk

Definition

Business risk is the risk that RBS does not have a strategy that is sufficiently well defined to provide clarity on its long-term ambitions to key internal and external stakeholders, or that it is not able to execute upon its chosen strategy as communicated to the market, regulators and other key stakeholders. The risk is that RBS does not deliver its expected business performance which could give rise to a deterioration in stakeholder trust and confidence and/or a breach of regulatory thresholds. RBS may not be able to execute its chosen strategy if there are material changes to RBS s internal or external operating environment.

Sources of risk

Business risk arises as a result of RBS s exposure to the macro-economy (including economic and political factors), the competitive environment, regulatory and technological changes. In addition, internal factors such as the ability to deliver complex change, volatility in sales volumes, input costs, and other operational risks affect RBS s ability to execute its chosen strategic business plan as intended and thus contribute to business risk.

Key developments in 2018

- As part of its requirement by UK law to separate its everyday banking services from its investment banking by 1 January 2019 known as ring-fencing RBS made a number of changes to the way its business was structured. Certain Personal Banking businesses and Commercial Banking businesses of The Royal Bank of Scotland plc transferred to Adam & Company PLC and National Westminster Bank Plc. The role of issuer under the covered bond programme transferred to National Westminster Bank Plc. Adam & Company PLC was renamed The Royal Bank of Scotland plc , and The Royal Bank of Scotland plc was renamed NatWest Markets Plc . The Royal Bank of Scotland plc superseded the prior issuer (former RBS plc) in respect of banknotes.
- RBS also restructured the NatWest Markets Plc (former RBS plc) capital structure. The shares in NatWest Holdings Limited, which owns the ring-fenced sub-group, were distributed to RBS. This separated the ring-fenced sub-group from the non-ring-fenced entities, as required by ring-fencing legislation. RBS also transferred the customer interest rate and foreign exchange derivatives business of National Westminster Bank Plc to NatWest Markets Plc.
- RBS reached a civil settlement in principle with the US Department of Justice in relation its investigation into RBS s issuance and underwriting of US Residential Mortgage Backed Securities (RMBS) between 2005 and 2007, resulting in a £1.0 billion additional provision.
- UK Government Investments Limited announced the successful completion of the disposal of part of HM Treasury s shareholding in The Royal Bank of Scotland Group plc, representing approximately 7.7% of the ordinary share capital of the Group. HM Treasury s shareholding in RBS now represents 62.3% of the Group s ordinary share capital.
- On 17 April 2018 RBS agreed a Memorandum of Understanding (MoU) with the Trustees of the RBS Group Pension Fund in connection with the requirements of ring-fencing. NatWest Markets Plc cannot continue to be a participant in the Main section and separate arrangements are required for its employees. Under the MoU NatWest Bank made a contribution of £2 billion on 9 October 2018 to strengthen funding of the Main section in recognition of the changes in covenant.

Capital and risk management

Business risk continued

RBS declared an interim ordinary dividend of 2 pence per share the first since September 2008.

Risk governance

The Board has ultimate responsibility for business risk and for approving strategic plans, initiatives and changes to strategic direction.

RBS s strategic planning process is managed by Strategy and Corporate Development. The Risk and Finance functions are key contributors to strategic planning.

Responsibility for the day-to-day management of business risk lies primarily with the franchises, with oversight by the Finance function. The franchises are responsible for delivery of their business plans and the management of such factors as pricing, sales volumes, marketing expenditure and other factors that can introduce volatility into earnings.

Risk appetite

Risk Appetite defines the level and types of risk it is willing to accept in order to achieve its strategic objectives and business plans. RBS articulates its appetite for business risk through the implementation of qualitative risk appetite statements and quantitative risk measures at franchise and function level. These statements and measures help determine the level and types of business risk RBS is willing to accept.

Risk controls

For information on risk controls, refer to page 104.

Risk monitoring and measurement

Business risk is identified and managed at the product and transaction level. Estimated revenue, costs and capital are key considerations in the design of any new product or in any new investment decision. Business risk is reported, assessed and challenged at every governance level within the organisation. Each franchise monitors its financial performance relative to plans and reports this on a regular basis to the finance directors of each franchise.

Risk mitigation

RBS operates a monthly rolling forecasting process to identify projected changes in, or risks to, key financial metrics, and ensures appropriate actions are taken.

Reputational risk

Definition

Reputational risk is the risk to RBS s public image from a failure to meet stakeholders expectations in relation to performance, conduct or business profile. Stakeholders include customers, investors, employees, suppliers, government, regulators, special interest and consumer groups, media and the general public.

Sources of risk

Reputational risk can arise from the conduct of employees; customer activities and the sectors and countries in which they operate; provision of products and transactions; as well as operations and infrastructure.

Key developments in 2018

- Metrics were reviewed and enhanced to help measure reputational risk across the Group.
- Risk appetite positions for countries and sectors identified as presenting heightened reputational risk continued to be reviewed and strengthened.

Risk governance

A reputational risk policy supports reputational risk management across RBS. Reputational risk committees in PB, CPB, RBSI, Ulster Bank Rol and NatWest Markets review relevant issues at an individual franchise or entity level, while the Group Reputational Risk Committee which has delegated authority from the Executive Risk Committee opines on cases, issues, sectors and themes that represent a material reputational risk to the Group. The Board Risk Committee oversees the identification and reporting of reputational risk. The Sustainable Banking Committee has a specific focus on environmental, social and ethical issues.

Risk appetite

RBS manages and articulates its appetite for reputational risk through a qualitative reputational risk appetite statement and quantitative measures. RBS seeks a continued improvement in the identification, assessment and management of customers, transactions, products and issues that present a material reputational risk.

Risk controls

For information on risk controls, refer to page 104.

Risk monitoring and measurement

Primary reputational risk measures are in place to assess internal activity relating to the management of reputational risk, including training. A number of secondary risk measures including measures also used in the management of operational, conduct and financial risks are used to assess relevant external factors. Quarterly reports on performance against these measures are provided to the Executive Risk Committee and Board Risk Committee.

Risk mitigation

Reputational risk is mitigated through the policy and governance framework, with ongoing staff training to ensure early identification, assessment and escalation of material issues.

The most material threats to RBS s reputation continued to originate from historical and more recent conduct issues. As a result, RBS has been the subject of investigations and reviews by a number of regulators and governmental authorities, some of which have resulted in fines, settlements and public censure. Refer to the Litigation, investigations and reviews section of Note 27 on the consolidated accounts.

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Financial statements

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of The Royal Bank of Scotland Group plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of The Royal Bank of Scotland Group plc (the Group) as of 31 December 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended 31 December 2018, the related Accounting policies and Notes 1 to 36, and the information identified as audited in the Annual Report on Remuneration in the Directors Remuneration Report and in the Capital and risk management section (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Group at 31 December 2018 and 2017 and the consolidated results of its operations and its cash flows for each of the three years in the period ended 31 December 2018, in conformity with International Financial Reporting Standards (IFRS) as adopted for use in the European Union and IFRS as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Group s internal control over financial reporting as of 31 December 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated 14 February 2019 expressed an unqualified opinion thereon.

Adoption of International Financial Reporting Standard 9 Financial Instruments

As discussed in section 1. Presentation of accounts of the Accounting policies to the financial statements, the Group changed its method of accounting for the classification, measurement and impairment of financial instruments in 2018 due to the adoption of IFRS 9 *Financial Instruments*.

Basis for Opinion

These financial statements are the responsibility of the Group s management. Our responsibility is to express an opinion on the Group s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in

the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

As disclosed in Note 4 to the consolidated financial statements, the accompanying 2018, 2017 and 2016 consolidated financial statements have been represented to reflect a change in reportable segments.

/s/ Ernst & Young LLP

We have served as the Group s auditors since 2016.

London, United Kingdom

14 February 2019 (30 April 2019 as to the representation for the change in reportable segments as disclosed in Note 4)

Financial statements

To the Shareholders and the Board of Directors of The Royal Bank of Scotland Group plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of The Royal Bank of Scotland Group plc (the Group) as of 31 December 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended 31 December 2018, the related Accounting policies and Notes 1 to 36, and the information identified as audited in the Annual Report on Remuneration in the Directors Remuneration Report and in the Capital and risk management section (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Group at 31 December 2018 and 2017 and the consolidated results of its operations and its cash flows for each of the three years in the period ended 31 December 2018, in conformity with International Financial Reporting Standards (IFRS) as adopted for use in the European Union and IFRS as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Group s internal control over financial reporting as of 31 December 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated 14 February 2019 expressed an unqualified opinion thereon.

Adoption of International Financial Reporting Standard 9 Financial Instruments

As discussed in section 1. Presentation of accounts of the Accounting policies to the financial statements, the Group changed its method of accounting for the classification, measurement and impairment of financial instruments in 2018 due to the adoption of IFRS 9 *Financial Instruments*.

Basis for Opinion

These financial statements are the responsibility of the Group s management. Our responsibility is to express an opinion on the Group s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Youna LL	Р
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We have served as the Group s auditors since 2016.

London, United Kingdom

14 February 2019 (except for the retrospective revisions to the reportable segments as discussed in Note 4 and changes in reporting standard as discussed in Note 7, as to which the date is 30 April 2019)

Consolidated income statement for the year ended 31 December 2018

	Note	2018 £m	2017 £m	2016 £m
Interest receivable		11,049	11,034	11,258
Interest payable		(2,393)	(2,047)	(2,550)
Net interest income	1	8,656	8,987	8,708
Fees and commissions receivable		3,218	3,338	3,340
Fees and commissions payable		(861)	(883)	(805)
Income from trading activities		1,507	634	974
Loss on redemption of own debt			(7)	(126)
Other operating income		882	1,064	499
Non-interest income	2	4,746	4,146	3,882
Total income		13,402	13,133	12,590
Staff costs		(4,122)	(4,676)	(5,124)
Premises and equipment		(1,383)	(1,565)	(1,388)
Other administrative expenses		(3,372)	(3,323)	(8,745)
Depreciation and amortisation		(731)	(808)	(778)
Write down of goodwill and other intangible assets		(37)	(29)	(159)
Operating expenses	3	(9,645)	(10,401)	(16,194)
Profit/(loss) before impairment losses		3,757	2,732	(3,604)
Impairment losses	14	(398)	(493)	(478)
Operating profit/(loss) before tax		3,359	2,239	(4,082)
Tax charge	7	(1,208)	(731)	(1,107)
Profit/(loss) for the year		2,151	1,508	(5,189)
Attributable to:				
Ordinary shareholders		1,622	752	(6,955)
Preference shareholders		182	234	260
Dividend access share				1,193
Paid-in equity holders		355	487	303
Non-controlling interests		(8)	35	10
		2,151	1,508	(5,189)
Earnings/(loss) per ordinary share	8	13.5p	6.3p	(59.5p)
Earnings/(loss) per ordinary share - fully diluted	8	13.4p	6.3p	(59.5p)

The accompanying notes on pages 191 to 249, the accounting policies on pages 186 to 190 and the audited sections of the Business review: Capital and risk management on pages 101 to 176 form an integral part of these financial statements.

Consolidated statement of comprehensive income for the year ended 31 December 2018

		2018	2017	2016
	Note	£m	£m	£m
Profit/(loss) for the year		2,151	1,508	(5,189)
Items that do not qualify for reclassification				
Remeasurement of retirement benefit schemes	5			
- contributions in preparation for ring-fencing (1)		(2,053)		
- other movements		86	90	(1,049)
Profit/(loss) on fair value of credit in financial liabilities designated at fair value				
through profit or loss due to own credit risk		200	(126)	
Fair value through other comprehensive income (FVOCI) financial assets (2)		48		
Tax		502	(10)	288
		(1,217)	(46)	(761)
Items that do qualify for reclassification		(, ,	, ,	,
Fair value through other comprehensive income (FVOCI) financial assets (2)		7	26	(94)
Cash flow hedges		(581)	(1,069)	765
Currency translation		310	100	1,263
Tax		189	256	(106)
		(75)	(687)	1,828
Other comprehensive (loss)/income after tax		(1,292)	(733)	1,067
Total comprehensive income/(loss) for the year		859	775	(4,122)
Attributable to:				
Ordinary shareholders		305	2	(5,999)
Preference shareholders		182	234	260
Dividend access share				1,193
Paid-in equity holders		355	487	303
Non-controlling interests		17	52	121
		859	775	(4,122)

Notes:

The accompanying notes on pages 191 to 249, the accounting policies on pages 186 to 190 and the audited sections of the Business review: Capital and risk management on pages 101 to 176 form an integral part of these financial statements.

⁽¹⁾ On 17 April 2018 RBS agreed a Memorandum of Understanding (MoU) with the Trustees of the RBS Group Pension Fund in connection with the requirements of ring-fencing. NatWest Markets Plc cannot continue to be a participant in the Main section and separate arrangements are required for its employees. Under the MoU NatWest Bank made a contribution of £2 billion on 9 October 2018 to strengthen funding of the Main section in recognition of the changes in covenant. Also under the MoU, NatWest Markets Plc is required to make a £53 million contribution to the NWM section in Q1 2019.

⁽²⁾ Refer to Note 33 for further information on the impact of IFRS 9 on classification and basis of preparation, year ended 31 December 2018 prepared under IFRS 9 and prior years under IAS 39.

Consolidated balance sheet as at 31 December 2018

	Note	2018 £m	2017 £m
Assets			
Cash and balances at central banks	11	88,897	98,337
Trading assets	9	75,119	85,991
Derivatives	10	133,349	160,843
Settlement balances		2,928	2,517
Loans to banks - amortised cost	11	12,947	11,517
Loans to customers - amortised cost	11	305,089	310,116
Securities subject to repurchase agreements		9,890	13,717
Other financial assets excluding securities subject to repurchase agreements		49,595	38,212
Other financial assets	15	59,485	51,929
Intangible assets	16	6,616	6,543
Other assets	17	9,805	10,263
Total assets		694,235	738,056
Liabilities			
Bank deposits	11	23,297	30,396
Customer deposits	11	360,914	361,316
Settlement balances		3,066	2,844
Trading liabilities	9	72,350	81,982
Derivatives	10	128,897	154,506
Other financial liabilities	18	39,732	30,326
Subordinated liabilities	19	10,535	12,722
Other liabilities	20	8,954	14,871
Total liabilities		647,745	688,963
		44.406	44.767
Ordinary shareholders interests		41,182	41,707
Other owners interests		4,554	6,623
Owners equity	22	45,736	48,330
Non-controlling interests	21	754	763
Total equity		46,490	49,093
Total liabilities and equity		694,235	738,056

	91 to 249, the accounting policies on pages les 101 to 176 form an integral part of these	s 186 to 190 and the audited sections of the Business revi financial statements.	ew:
The accounts were approved by the	Board of directors on 14 February 2019 and	I signed on its behalf by:	
Howard Davies Chairman	Ross McEwan Chief Executive	Katie Murray	
The Royal Bank of Scotland Group p	lc	Chief Financial Officer	
Registered No. SC45551			
			182

Consolidated statement of changes in equity for the year ended 31 December 2018

Called-up share capital - at 1 January Ordinary shares issued At 31 December	2018 £m 11,965 84 12,049	2017 £m 11,823 142 11,965	2016 £m 11,625 198 11,823
Paid-in equity - at 1 January Redeemed/reclassified (1)	4,058	4,582 (524)	2,646 (110)
Securities issued during the year (2) At 31 December	4,058	4,058	2,046 4,582
Share premium account - at 1 January Ordinary shares issued	887 140	25,693 235	25,425 268
Redemption of debt preference shares (3)		748	
Capital reduction (4) At 31 December	1,027	(25,789) 887	25,693
Merger reserve - at 1 January and 31 December	10,881	10,881	10,881
FVOCI reserve at 1 January (5) Implementation of IFRS 9 on 1 January 2018	255 34	238	307
Unrealised gains Realised gains Tax	97 (42) (1)	202 (176) (9)	282 (376) 25
At 31 December	343	255	238
Cash flow hedging reserve - at 1 January	227	1,030	458
Amount recognised in equity (6)	(63)	(277)	1,867
Amount transferred from equity to earnings (7)	(518)	(792)	(1,102)
Tax At 31 December (8)	163 (191)	266 227	(193) 1,030
Foreign exchange reserve - at 1 January Retranslation of net assets Foreign currency losses on hedges of net assets Tax Recycled to profit or loss on disposal of businesses (9) At 31 December (8)	2,970 195 (33) 23 123 3,278	2,888 111 (6) (1) (22) 2,970	1,674 1,470 (278) 62 (40) 2,888
Capital redemption reserve - at 1 January		4,542	4,542
Capital reduction (4) At 31 December Retained earnings - at 1 January	17,130	(4,542) (12,936)	4,542 (4,020)
Implementation of IFRS 9 on 1 January 2018 (5) Profit/(loss) attributable to ordinary shareholders and other equity owners Equity preference dividends paid Paid-in equity dividends paid Ordinary dividends paid	(105) 2,159 (182) (355) (241)	1,473 (234) (487)	(5,199) (260) (303)
Capital reduction (4) Dividend access share dividend Redemption of debt preference shares (3)		30,331 (748)	(1,193)

Redemption of equity preference shares (10) Redemption/reclassification of paid-in equity Realised gains in period on FVOCI equity shares, net of tax Remeasurement of the retirement benefit schemes	(2,805)	(196)	(1,160) (21)
- contributions in preparation for ring-fencing (11) - other movements - tax Changes in fair value of credit in financial liabilities designated at fair value through profit or loss	(2,053) 86 539	90 (28)	(1,049) 288
- gross - tax Shares issued under employee share schemes Share-based payments At 31 December	200 (33) (2) (32) 14,312	(126) 18 (5) (22) 17,130	(10) (9) (12,936)
Own shares held - at 1 January Shares issued under employee share schemes Own shares acquired At 31 December	(43) 87 (65) (21)	(132) 161 (72) (43)	(107) 41 (66) (132)
Owners equity at 31 December	45,736	48,330	48,609

Consolidated statement of changes in equity for the year ended 31 December 2018

Non-controlling interests (see Note 21) - at 1 January Currency translation adjustments and other movements (Loss)/profit attributable to non-controlling interests Dividends paid Equity withdrawn and disposals At 31 December	2018 £m 763 25 (8) (5) (21) 754	2017 £m 795 17 35 (25) (59) 763	2016 £m 716 111 10 (42) 795
Total equity at 31 December	46,490	49,093	49,404
Total equity is attributable to: Ordinary shareholders Preference shareholders Paid-in equity holders Non-controlling interests	41,182 496 4,058 754 46,490	41,707 2,565 4,058 763 49,093	41,462 2,565 4,582 795 49,404

Notes:

- (1) Paid-in equity reclassified to liabilities as a result of the call of US\$564 million and CAD321 million EMTN notes in August 2017 (redeemed in October 2017), the call of RBS Capital Trust D in March 2017 (redeemed in June 2017), the call of RBS Capital Trust C in May 2016 (redeemed in July 2016).
- (2) AT1 capital notes totalling £2.0 billion issued in August 2016.
- (3) During 2017, non-cumulative US dollar preference shares were redeemed at their original issue price of US\$1.1 billion. The nominal value of £0.3 million was credited to the capital redemption reserve; share premium increased by £0.7 billion in respect of the premium received on issue, with a corresponding decrease in retained earnings. During 2016, non-cumulative US dollar preference shares were redeemed at their original issue price of US\$1.5 billion. The nominal value of £0.3 million was transferred from share capital to capital redemption reserve and ordinary owners equity was reduced by £0.4 billion in respect of the movement in exchange rates since issue.
- (4) On 15 June 2017, the Court of Session approved a reduction of RBSG plc capital so that the amounts which stood to the credit of share premium, account and capital redemption reserve were transferred to retained earnings.
- (5) Refer to Note 33 for further information on the impact of IFRS 9 on classification and basis of preparation, year ended 31 December 2018 prepared under IFRS 9 prior years under IAS 39.
- (6) The amount debited direct to the cash flow hedging reserve comprised £166 million in relation to interest rate hedges less a credit of £103 million in relation to foreign exchange hedges.
- (7) The cash flow hedging reserve was reduced by £25 million in relation to foreign exchange hedges and £493 million in relation to interest rate hedges which were credited in aggregate to net interest income.
- (8) The hedging element of the cash flow hedging reserve and foreign exchange reserve relate mainly to de-designated hedges.
- (9) No tax impact.
- (10) During 2018, non-cumulative US dollar, Euro and Sterling preference shares were redeemed.
- (11) On 17 April 2018 RBS agreed a Memorandum of Understanding (MoU) with the Trustees of the RBS Group Pension Fund in connection with the requirements of ring-fencing. NatWest Markets Plc cannot continue to be a participant in the Main section and separate arrangements are required for its employees. Under the MoU NatWest Bank made a contribution of £2 billion on 9 October 2018 to strengthen funding of the Main section in recognition of the changes in covenant Also under the MoU, NatWest Markets Plc is required to make a £53 million contribution to the NWM section in Q1 2019.

The accompanying notes on pages 191 to 249, the accounting policies on pages 186 to 190 and the audited sections of the Business review: Capital and risk management on pages 101 to 176 form an integral part of these financial statements.

Consolidated cash flow statement for the year ended 31 December 2018

	Note	2018 £m	2017 £m	2016 £m
Cash flows from operating activities				
Operating profit/(loss) before tax		3,359	2,239	(4,082)
Interest on subordinated liabilities		461	572	845
Impairment releases on loans to banks and customers		(1,197)	(647)	(3,221)
Profit on sale of subsidiaries and associates			(155)	(22)
Profit on sale of securities		(34)	(226)	(71)
Defined benefit pension schemes		(2,055)	(252)	(4,518)
Provisions: expenditure in excess of charges		(5,016)	(4,546)	4,517
Depreciation, amortisation and impairment of property, plant, equipment, goodwill and intangibles		718	762	919
Loss on redemption of own debt		(4.00)	7	126
Elimination of foreign exchange differences		(160)	(426)	(6,518)
Other non-cash items		767 (2.157)	(214)	133
Net cash outflow from trading activities		(3,157)	(2,886)	(11,892)
Decrease/(increase) in net loans to banks and customers (Increase)/decrease in securities		2,627	2,466	(12,960) 16,741
Decrease/(increase) in other assets		(47) 258	(1,319) (221)	1,195
Increase in trading assets and liabilities		(2,087)	(221)	1,195
Decrease/(increase) in derivative assets and liabilities		1,885	4,169	(2,696)
(Decrease)/increase in settlement balance assets and liabilities and short positions		(189)	8,658	104
(Decrease)/increase in banks and customers deposits		(8,164)	25,449	10,418
Increase/(decrease) in debt securities in issue		10.068	3,326	(3.967)
Decrease in other liabilities		(956)	(381)	(422)
Changes in operating assets and liabilities		3,395	42,147	8,413
Income taxes paid		(466)	(520)	(171)
Net cash flows from operating activities (1)		(228)	38,741	(3,650)
Cash flows from investing activities				
Sale and maturity of securities		9,062	11,656	8,599
Purchase of securities		(16,181)	(17,212)	(11,607)
Sale of property, plant and equipment		264	405	447
Purchase of property, plant and equipment		(619)	(1,132)	(912)
Net investment in business interests and intangible assets	28	(481)	(199)	(886)
Net cash flows from investing activities		(7,955)	(6,482)	(4,359)
Cash flows from financing activities				
Issue of ordinary shares		144	306	300
Issue of other equity instruments: Additional Tier 1 capital notes				2,046
Redemption of other equity instruments		(2,826)	(779)	(1,312)
Redemption of debt preference shares			(748)	
Own shares disposed/(acquired)		22	89	(25)
Redemption of subordinated liabilities		(2,258)	(5,747)	(3,606)
Service cost of other equity instruments		(803)	(612)	(1,697)
Interest on subordinated liabilities		(566)	(717)	(813)
Net cash flows from financing activities		(6,287)	(8,208)	(5,107)
Effects of exchange rate changes on cash and cash equivalents		676	(16)	8,094
Net (decrease)/increase in cash and cash equivalents		(13,794)	24,035	(5,022)
Cash and cash equivalents at 1 January		122,605	98,570	103,592
Cash and cash equivalents at 31 December	30	108,811	122,605	98,570
•		•		•

Note:

(1) Includes interest received of £10,927 million (2017 - £10,946 million, 2016 - £11,321 million) and interest paid of £2,511 million (2017 - £2,300 million, 2016 - £2,638 million).

The accompanying notes on pages 191 to 249, the accounting policies on pages 186 to 190 and the audited sections of the Business review: Capital and risk management on pages 101 to 176 form an integral part of these financial statements.

Accounting policies

1. Presentation of accounts

The accounts, set out on pages 180 to 249 including these accounting policies on pages 186 to 190 and the audited sections of the Financial review: Capital and risk management on pages 101 to 176, are prepared on a going concern basis (see the Report of the directors, page 98) and in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and interpretations as issued by the IFRS Interpretations Committee of the IASB and adopted by the European Union (EU) (together IFRS).)

The company is incorporated in the UK and registered in Scotland. Its accounts are presented in accordance with the Companies Act 2006.

With the exception of investment property and certain financial instruments as described in Accounting policies 8, 13, and 21, the accounts are presented on an historical cost basis.

Adoption of IFRS 9

Refer to Note 33 for details of the adoption of IFRS 9.

Other amendments to IFRS

IFRS 15 Revenue from Contracts with Customers has been adopted with effect from 1 January 2018. The Accounting policy is updated to reflect the terminology in the new standard but it has had no effect on financial information reported in the current or comparative periods. Interest income and expense continues to be recognised using the effective interest rate method for financial instruments measured at historical cost. There has been no restatement of profit or loss for comparative periods.

Other amendments to IFRS effective for 2018, including IFRS 2 Share-based payments and IAS 40 Investment Property have not had a material effect on the Group s financial statements.

2. Basis of consolidation

The consolidated accounts incorporate the financial statements of the company and entities (including certain structured entities) that are controlled by the Group. The Group controls another entity (a subsidiary) when it is exposed, or has rights, to variable returns from its involvement with that entity and has the ability to affect those returns through its power over the other entity; power generally arises from holding a majority of voting rights. On acquisition of a subsidiary, its identifiable assets, liabilities and contingent liabilities are included in the consolidated accounts at their fair value. A subsidiary is included in the consolidated financial statements from the date it is controlled by the Group until the date the Group ceases to control it through a sale or a significant change in circumstances.

Changes in the Group s interest in a subsidiary that do not result in the Group ceasing to control that subsidiary are accounted for as equity transactions. All intergroup balances, transactions, income and expenses are eliminated on consolidation. The consolidated accounts are prepared under uniform accounting policies.

3. Revenue recognition

Interest income or expense on financial instruments that are measured at amortised cost and fair value through comprehensive income is determined using the effective interest rate method. The effective interest rate allocates the interest income or interest expense over the expected life of the asset or liability at the rate that exactly discounts all estimated future cash flows to equal the instrument s initial carrying amount. Calculation of the effective interest rate takes into account fees payable or receivable that are an integral part of the instrument s yield, premiums or discounts on acquisition or issue, early redemption fees and transaction costs. All contractual terms of a financial instrument are considered when estimating future cash flows. Negative effective interest accruing to financial assets is presented in interest payable.

Net interest income in the income statement only relates to financial instruments measured at amortised cost; the interest on debt instruments classified as fair value through OCI; and the effective part of any related accounting hedging instruments. Other interest relating to financial instruments measured at fair value is recognised as part of the movement in fair value.

Fees in respect of services are recognised as the right to consideration accrues through the performance of each distinct service obligation to the customer. The arrangements are generally contractual and the cost of providing the service is incurred as each service is performed. The price is usually fixed and always determinable.

4. Assets held for sale and discontinued operations

A non-current asset (or disposal group) is classified as held for sale if the Group will recover its carrying amount principally through a sale transaction rather than through continuing use. A non-current asset (or disposal group) classified as held for sale is measured at the lower of its carrying amount and fair value less costs to sell.

5. Employee benefits

Short-term employee benefits, such as salaries, paid absences, and other benefits are accounted for on an accruals basis over the period in which the employees provide the related services. Employees may receive variable compensation satisfied by cash, by debt instruments issued by the Group or by RBSG shares. The treatment of share-based compensation is set out in Accounting policy 23. Variable compensation that is settled in cash or debt instruments is charged to profit or loss over the period from the start of the year to which the variable compensation relates to the expected settlement date taking account of forfeiture and clawback criteria.

Contributions to defined contribution pension schemes are recognised in profit or loss when payable.

For defined benefit schemes, the defined benefit obligation is measured on an actuarial basis using the projected unit credit method and discounted at a rate determined by reference to market yields at the end of the reporting period on high quality corporate bonds of equivalent term and currency to the scheme liabilities. Scheme assets are measured at their fair value. The difference between scheme assets and scheme liabilities, the net defined benefit asset or liability, is recognised in the balance sheet. A defined benefit asset is limited to the present value of any economic benefits available to the Group in the form of refunds from the plan or reduced contributions to it.

The charge to profit or loss for pension costs (recorded in operating expenses) comprises:

- the current service cost
- interest, computed at the rate used to discount scheme liabilities, on the net defined benefit liability or asset
- past service cost resulting from a scheme amendment or curtailment
- gains or losses on settlement.

A curtailment occurs when the Group significantly reduces the number of employees covered by a plan. A plan amendment occurs when the Group introduces, or withdraws, a defined benefit plan or changes the benefits payable under an existing defined benefit plan. Past service cost may be either positive (when benefits are introduced or changed so that the present value of the defined benefit obligation increases) or negative (when benefits are withdrawn or changed so that the present value of the defined benefit obligation decreases). A settlement is a transaction that eliminates all further obligation for part or all of the benefits.

Actuarial gains and losses (i.e. gains or and losses on re-measuring the net defined benefit asset or liability) are recognised in other comprehensive income in full in the period in which they arise.

6. Intangible assets and goodwill

Intangible assets acquired by the Group are stated at cost less accumulated amortisation and impairment losses. Amortisation is charged to profit or loss over the assets estimated economic lives using methods that best reflect the pattern of economic benefits and is included in Depreciation and amortisation. These estimated useful economic lives are:

Computer software
Other acquired intangibles

3 to 12 years 5 to 10 years

Expenditure on internally generated goodwill and brands is written-off as incurred. Direct costs relating to the development of internal-use computer software are capitalised once technical feasibility and economic viability have been established. These costs include payroll, the costs of materials and services, and directly attributable overheads. Capitalisation of costs ceases when the software is capable of operating as intended. During and after development, accumulated costs are reviewed for impairment against the benefits that the software is expected to generate. Costs incurred prior to the establishment of technical feasibility and

Accounting policies

economic viability are expensed as incurred as are all training costs and general overheads. The costs of licences to use computer software that are expected to generate economic benefits beyond one year are also capitalised.

Intangible assets include goodwill arising on the acquisition of subsidiaries and joint ventures. Goodwill on the acquisition of a subsidiary is the excess of the fair value of the consideration transferred, the fair value of any existing interest in the subsidiary and the amount of any non-controlling interest measured either at fair value or at its share of the subsidiary s net assets over net fair value of the subsidiary s identifiable assets, liabilities and contingent liabilities.

Goodwill arises on the acquisition of a joint venture when the cost of investment exceeds the Group s share of the net fair value of the joint venture s identifiable assets and liabilities. Goodwill is measured at initial cost less any subsequent impairment losses. Goodwill arising on the acquisition of associates is included within their carrying amounts. The gain or loss on the disposal of a subsidiary, associate or joint venture includes the carrying value of any related goodwill.

7. Impairment of intangible assets and property, plant and equipment

At each balance sheet date, the Group assesses whether there is any indication that its intangible assets, or property, plant and equipment are impaired. If any such indication exists, the Group estimates the recoverable amount of the asset and the impairment loss if any. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that it might be impaired.

If an asset does not generate cash flows that are independent from those of other assets or groups of assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. For the purposes of impairment testing, goodwill acquired in a business combination is allocated to each of the Group's cash-generating units or groups of cash-generating units expected to benefit from the combination. The recoverable amount of an asset or cash-generating unit is the higher of its fair value less cost to sell and its value in use. Value in use is the present value of future cash flows from the asset or cash-generating unit discounted at a rate that reflects market interest rates adjusted for risks specific to the asset or cash-generating unit that have not been taken into account in estimating future cash flows. If the recoverable amount of an intangible or tangible asset is less than its carrying value, an impairment loss is recognised immediately in profit or loss and the carrying value of the asset reduced by the amount of the loss. A reversal of an impairment loss on intangible assets (excluding goodwill) or property, plant and equipment can be recognised when an increase in service potential arises provided the increased carrying value is not greater than it would have been had no impairment loss been recognised. Impairment losses on goodwill are not reversed.

8. Investment property

Investment property comprises freehold and leasehold properties that are held to earn rentals or for capital appreciation or both. Investment property is not depreciated but is stated at fair value. Fair value is based on current prices for similar properties in the same location and condition. Any gain or loss arising from a change in fair value is recognised in profit or loss. Rental income from investment property is recognised on a straight-line basis over the term of the lease in Other operating income. Lease incentives granted are recognised as an integral part of the total rental income.

9. Foreign currencies

The Group s consolidated financial statements are presented in sterling which is the functional currency of the company.

Transactions in foreign currencies are recorded in the functional currency at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into the relevant functional currency at the foreign exchange rates ruling at the balance sheet date. Foreign exchange differences arising on the settlement of foreign currency transactions and from the translation of monetary assets and liabilities are reported in income from trading activities except for differences arising on cash flow hedges and hedges of net investments in foreign operations (see Accounting policy 21).

Non-monetary items denominated in foreign currencies that are stated at fair value are translated into the relevant functional currency at the foreign exchange rates ruling at the dates the values are determined. Translation differences arising on non-monetary items measured at fair value are recognised in profit or loss except for differences arising on non-monetary financial assets classified as available for sale, for example equity shares, which are recognised in other comprehensive income unless the asset is the hedged item in a fair value hedge.

Assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated into sterling at foreign exchange rates ruling at the balance sheet date. Income and expenses of foreign operations are translated into sterling at average exchange rates unless these do not approximate to the foreign exchange rates ruling at the dates of the transactions. Foreign exchange differences arising on the translation of a foreign operation are recognised in other comprehensive income. The amount accumulated in equity is reclassified from equity to profit or loss on disposal of a foreign operation.

10. Leases

As lessor

Contracts with customers to lease assets are classified as finance leases if they transfer substantially all the risks and rewards of ownership of the asset to the customer; all other contracts with customers to lease assets are classified as operating leases.

Finance lease receivables are included in the balance sheet, within net loans to customers, at the amount of the net investment in the lease being the minimum lease payments and any unguaranteed residual value discounted at the interest rate implicit in the lease. Finance lease income is allocated to accounting periods so as to give a constant periodic rate of return before tax on the net investment and included in Interest receivable. Unguaranteed residual values are subject to regular review; if there is a reduction in their value, income allocation is revised and any reduction in respect of amounts accrued is recognised immediately.

Rental income from operating leases is recognised in income on a straight-line basis over the lease term unless another systematic basis better represents the time pattern of the asset suse. Operating lease assets are included within Property, plant and equipment and depreciated over their useful lives. Operating lease rentals receivable are included in Other operating income.

As lessee

The Group s contracts to lease assets are principally operating leases. Operating lease rental expense is included in Premises and equipment costs and recognised as an expense on a straight-line basis over the lease term unless another systematic basis better represents the benefit to the Group.

11. Provisions

The Group recognises a provision for a present obligation resulting from a past event when it is more likely than not that it will be required to transfer economic benefits to settle the obligation and the amount of the obligation can be estimated reliably.

Provision is made for restructuring costs, including the costs of redundancy, when the Group has a constructive obligation to restructure. An obligation exists when the Group has a detailed formal plan for the restructuring and has raised a valid expectation in those affected by starting to implement the plan or by announcing its main features.

If the Group has a contract that is onerous, it recognises the present obligation under the contract as a provision. An onerous contract is one where the unavoidable costs of meeting the Group's contractual obligations exceed the expected economic benefits. When the Group vacates a leasehold property, a provision is recognised for the costs under the lease less any expected economic benefits (such as rental income).

Contingent liabilities are possible obligations arising from past events, whose existence will be confirmed only by uncertain future events, or present obligations arising from past events that are not recognised because either an outflow of economic benefits is not probable or the amount of the obligation cannot be reliably measured. Contingent liabilities are not recognised but information about them is disclosed unless the possibility of any outflow of economic benefits in settlement is remote.

Accounting policies

12. Tax

Income tax expense or income, comprising current tax and deferred tax, is recorded in the income statement except income tax on items recognised outside profit or loss which is credited or charged to other comprehensive income or to equity as appropriate.

Current tax is income tax payable or recoverable in respect of the taxable profit or loss for the year arising in profit or loss, other comprehensive income or equity. Provision is made for current tax at rates enacted or substantively enacted at the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable in respect of temporary differences between the carrying amount of an asset or liability for accounting purposes and its carrying amount for tax purposes. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that the asset will be recovered.

Deferred tax is not recognised on temporary differences that arise from initial recognition of an asset or a liability in a transaction (other than a business combination) that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is calculated using tax rates expected to apply in the periods when the assets will be realised or the liabilities settled, based on tax rates and laws enacted, or substantively enacted, at the balance sheet date.

Deferred tax assets and liabilities are offset where the Group has a legally enforceable right to offset and where they relate to income taxes levied by the same taxation authority either on an individual Group company or on Group companies in the same tax group that intend, in future periods, to settle current tax liabilities and assets on a net basis or on a gross basis simultaneously.

13. Financial instruments

On initial recognition, financial instruments are measured at fair value. Subsequently they are classified as follows: designated at fair value through profit or loss; amortised cost, the default class for liabilities; fair value through profit or loss, the default class for assets; or financial assets may be designated as at fair value through other comprehensive income. Regular way purchases of financial assets classified as amortised cost are recognised on the settlement date; all other regular way transactions in financial assets are recognised on the trade date.

Designated as at fair value through profit or loss a financial instrument may be designated as at fair value through profit or loss only if such designation (a) eliminates or significantly reduces a measurement or recognition inconsistency; or (b) applies to a group of financial assets, financial liabilities or both, that the Group manages and evaluates on a fair value basis; or (c) relates to a financial liability that contains an embedded derivative which is not evidently closely related to the host contract. Financial assets that the Group designates on initial recognition as being at fair value through profit or loss are recognised at fair value, with transaction costs being recognised in profit or loss, and are subsequently measured at fair value. Gains and losses are recognised in profit or loss as they arise.

Amortised cost assets have to meet both the following criteria:

- (a) the asset is held within a business model whose objective is solely to hold assets to collect contractual cash flows; and
- (b) the contractual terms of the financial asset are solely payments of principal and interest on the outstanding balance.

Amortised cost liabilities all liabilities that are not subsequently measured at fair value are measured at amortised cost.

Assets designated at fair value through other comprehensive income An equity instrument may be designated irrevocably at fair value through other comprehensive income. Other assets have to meet both the following criteria:

- (a) the asset is held within a business model whose objective is both to hold assets to collect contractual cash flows and selling financial assets; and
- (b) the contractual terms of the financial asset are solely payments of principal and interest on the outstanding balance.

Fair value through profit or loss - a financial liability is measured at fair value if it arises from: a financial guarantee contract; a commitment to lend at below market rates; an obligation arising from the failed sale of an asset; or a contingent consideration for a business acquisition. Fair value through profit or loss is the default classification for a financial asset.

Reclassifications financial liabilities cannot be reclassified. Financial assets are only reclassified where there has been a change in the business model.

Fair value the fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Business model assessment business models are assessed at portfolio level, being the level at which they are managed. This is expected to result in the most consistent classification of assets because it aligns with the stated objectives of the portfolio, its risk management, manager s remuneration and the ability to monitor sales of assets from a portfolio. The criteria for classifying cash flows as solely principal and interest are assessed against the contractual terms of a facility, with attention to leverage features; prepayment and extension terms; and triggers that might reset the effective rate of interest.

14. Impairments

At each balance sheet date each financial asset or portfolio of loans measured at amortised cost or at fair value through other comprehensive income, issued financial guarantee and loan commitment is assessed for impairment. Loss allowances are forward-looking, based on 12 month expected credit losses where there has not been a significant increase in credit risk rating, otherwise allowances are based on lifetime expected losses. Loss allowances for lease receivables are always made on a lifetime basis.

Expected credit losses are a probability-weighted estimate of credit losses. The probability is determined by the risk of default which is applied to the cash flow estimates. In the absence of a change in credit rating, allowances are recognised when there is reduction in the net present value of expected cash flows. On a significant increase in credit risk, allowances are recognised without a change in the expected cash flows, although typically expected cash flows do also change; and expected credit losses are rebased from 12 month to lifetime expectations.

On restructuring a financial asset without causing derecognition of the original asset the revised cash flows are used in re-estimating the credit loss. Where restructuring causes derecognition of the original financial asset, the fair value of the replacement asset is used as the closing cash flow of the original asset.

Where, in the course of the orderly realisation of a loan, it is exchanged for equity shares or property, the exchange is accounted for as the sale of the loan and the acquisition of equity securities or investment property. Where the Group s interest in equity shares following the exchange is such that the Group controls an entity, that entity is consolidated.

The costs of loss allowances on assets held at amortised cost are presented as impairments in the income statement. Allowances in respect financial guarantees and loan commitments are presented in administrative expenses.

Impaired loans and receivables are written off, when the Group concludes that there is no longer any realistic prospect of recovery of part or all of the loan. For loans that are individually assessed for impairment, the timing of write off is determined on a case-by-case basis. Such loans are reviewed regularly and write off will be prompted by bankruptcy, insolvency, renegotiation and similar events.

The typical time frames from initial impairment to write off for the Group s collectively-assessed portfolios are:

- Retail mortgages: write off usually occurs within five years, or when an account is closed if earlier.
- Credit cards: the irrecoverable amount is written off after 12 months; three years later any remaining amounts outstanding are written off. Overdrafts and other unsecured loans: write off occurs within six years.
- Overdrafts and other unsecured loans: write off occurs within six years
- Commercial loans: write offs are determined in the light of individual circumstances; the period does not exceed five years.
- Business loans are generally written off within five years.

15. Financial guarantee contracts

Under a financial guarantee contract, the Group, in return for a fee, undertakes to meet a customer s obligations under the terms of a debt instrument if the customer fails to do so.

Accounting policies

A financial guarantee is recognised as a liability; initially at fair value and, if not designated as at fair value through profit or loss, subsequently at the higher of its initial value less cumulative amortisation and any provision under the contract measured in accordance with Accounting policy 13. Amortisation is calculated so as to recognise fees receivable in profit or loss over the period of the guarantee.

16. Loan commitments

Provision is made for expected credit loss on loan commitments, other than those classified as held-for-trading. Syndicated loan commitments in excess of the level of lending under the commitment approved for retention by the Group are classified as held-for-trading and measured at fair value.

17. Derecognition

A financial asset is derecognised when the contractual right to receive cash flows from the asset has expired or when it has been transferred and the transfer qualifies for derecognition. A transfer requires that the Group either (a) transfers the contractual rights to receive the asset s cash flows; or (b) retains the right to the asset s cash flows but assumes a contractual obligation to pay those cash flows to a third party. After a transfer, the Group assesses the extent to which it has retained the risks and rewards of ownership of the transferred asset. The asset remains on the balance sheet if substantially all the risks and rewards have been retained. It is derecognised if substantially all the risks and rewards have been transferred.

If substantially all the risks and rewards have been neither retained nor transferred, the Group assesses whether or not it has retained control of the asset. If the Group has retained control of the asset, it continues to recognise the asset to the extent of its continuing involvement; if the Group has not retained control of the asset, it is derecognised.

A financial liability is removed from the balance sheet when the obligation is discharged, or is cancelled, or expires. On the redemption or settlement of debt securities (including subordinated liabilities) issued by the Group, the Group derecognises the debt instrument and records a gain or loss being the difference between the debt is carrying amount and the cost of redemption or settlement. The same treatment applies where the debt is exchanged for a new debt issue that has terms substantially different from those of the existing debt. The assessment of whether the terms of the new debt instrument are substantially different takes into account qualitative and quantitative characteristics including a comparison of the present value of the cash flows under the new terms with the present value of the remaining cash flows of the original debt issue discounted at the effective interest rate of the original debt issue.

18. Sale and repurchase transactions

Securities subject to a sale and repurchase agreement under which substantially all the risks and rewards of ownership are retained by the Group continue to be shown on the balance sheet and the sale proceeds recorded as a financial liability. Securities acquired in a reverse sale and repurchase transaction under which the Group is not exposed to substantially all the risks and rewards of ownership are not recognised on the balance sheet and the consideration paid is recorded as a financial asset.

Securities borrowing and lending transactions are usually secured by cash or securities advanced by the borrower. Borrowed securities are not recognised on the balance sheet or lent securities derecognised. Cash collateral given or received is treated as a loan or deposit; collateral in the form of securities is not recognised. However, where securities borrowed are transferred to third parties, a liability for the obligation to return the securities to the stock lending counterparty is recorded.

19. Netting

Financial assets and financial liabilities are offset and the net amount presented in the balance sheet when, and only when, the Group currently has a legally enforceable right to set off the recognised amounts and it intends either to settle on a net basis or to realise the asset and settle the liability simultaneously. The Group is party to a number of arrangements, including master netting agreements, that give it the right to offset financial assets and financial liabilities, but where it does not intend to settle the amounts net or simultaneously, the assets and liabilities concerned are presented gross.

20. Capital instruments

The Group classifies a financial instrument that it issues as a liability if it is a contractual obligation to deliver cash or another financial asset, or to exchange financial assets or financial liabilities on potentially unfavourable terms and as equity if it evidences a residual interest in the assets of the Group after the deduction of liabilities. The components of a compound financial instrument issued by the Group are classified and accounted for separately as financial assets, financial liabilities or equity as appropriate. Incremental costs and related tax that are directly attributable to an equity transaction are deducted from equity.

The consideration for any ordinary shares of the company purchased by the Group (treasury shares) is deducted from equity. On the cancellation of treasury shares their nominal value is removed from equity and any excess of consideration over nominal value is treated in accordance with the capital maintenance provisions of the Companies Act. On the sale or reissue of treasury shares the consideration received and related tax are credited to equity, net of any directly attributable incremental costs.

21. Derivatives and hedging

In accordance with IAS 39 hedge relationships, derivative financial instruments are initially recognised, and subsequently measured, at fair value.

A derivative embedded in a contract is accounted for as a stand-alone derivative if its economic characteristics are not closely related to the economic characteristics of the host contract; unless the host is a financial asset or the entire contract is measured at fair value with changes in fair value recognised in profit or loss.

Gains and losses arising from changes in the fair value of derivatives that are not the hedging instrument in a qualifying hedge are recognised as they arise in profit or loss. Gains and losses are recorded in Income from ordinary activities except for gains and losses on those derivatives that are managed together with financial instruments designated at fair value; these gains and losses are included in Other operating income. The Group enters into three types of hedge relationship: hedges of changes in the fair value of a recognised asset or liability or unrecognised firm commitment (fair value hedges); hedges of the variability in cash flows from a recognised asset or liability or a highly probable forecast transaction (cash flow hedges); and hedges of the net investment in a foreign operation.

Hedge relationships are formally designated and documented at inception. The documentation identifies the hedged item and the hedging instrument and details the risk that is being hedged and the way in which effectiveness will be assessed at inception and during the period of the hedge. If the hedge is not highly effective in offsetting changes in fair values or cash flows attributable to the hedged risk, consistent with the documented risk management strategy, hedge accounting is discontinued. Hedge accounting is also discontinued if the Group revokes the designation of a hedge relationship.

Fair value hedge - in a fair value hedge, the gain or loss on the hedging instrument is recognised in profit or loss. The gain or loss on the hedged item attributable to the hedged risk is recognised in profit or loss and, where the hedged item is measured at amortised cost, adjusts the carrying amount of the hedged item. Hedge accounting is discontinued if the hedge no longer meets the criteria for hedge accounting; or if the hedging instrument expires or is sold, terminated or exercised; or if hedge designation is revoked. If the hedged item is one for which the effective interest rate method is used, any cumulative adjustment is amortised to profit or loss over the life of the hedged item using a recalculated effective interest rate.

Cash flow hedge - in a cash flow hedge, the effective portion of the gain or loss on the hedging instrument is recognised in other comprehensive income and the ineffective portion in profit or loss. When the forecast transaction results in the recognition of a financial asset or financial liability, the cumulative gain or loss is reclassified from equity to profit or loss in the same periods in which the hedged forecast cash flows affect profit or loss. Otherwise the cumulative gain or loss is removed from equity and recognised in profit or loss at the same time as the hedged transaction. Hedge accounting is discontinued if the hedge no longer meets the criteria for hedge accounting; if the hedging instrument expires or is sold, terminated or exercised: if the forecast transaction is no

Accounting policies

longer expected to occur; or if hedge designation is revoked. On the discontinuance of hedge accounting (except where a forecast transaction is no longer expected to occur), the cumulative unrealised gain or loss is reclassified from equity to profit or loss when the hedged cash flows occur or, if the forecast transaction results in the recognition of a financial asset or financial liability, when the hedged forecast cash flows affect profit or loss. Where a forecast transaction is no longer expected to occur, the cumulative unrealised gain or loss is reclassified from equity to profit or loss immediately.

Hedge of net investment in a foreign operation - in the hedge of a net investment in a foreign operation, the portion of foreign exchange differences arising on the hedging instrument determined to be an effective hedge is recognised in other comprehensive income. Any ineffective portion is recognised in profit or loss. Non-derivative financial liabilities as well as derivatives may be the hedging instrument in a net investment hedge. On disposal or partial disposal of a foreign operation, the amount accumulated in equity is reclassified from equity to profit or loss.

22. Associates and joint ventures

An associate is an entity over which the Group has significant influence. A joint venture is one which it controls jointly with other parties. Investments in associates and interests in joint ventures are recognised using the equity method. They are stated initially at cost, including attributable goodwill, and subsequently adjusted for post-acquisition changes in the Group s share of net assets.

23. Share-based compensation

The Group operates a number of share-based compensation schemes under which it awards RBSG shares and share options to its employees. Such awards are generally subject to vesting conditions: conditions that vary the amount of cash or shares to which an employee is entitled. Vesting conditions include service conditions (requiring the employee to complete a specified period of service) and performance conditions (requiring the employee to complete a specified period of service and specified performance targets to be met). Other conditions to which an award is subject are non-vesting conditions (such as a requirement to save throughout the vesting period).

The cost of employee services received in exchange for an award of shares or share options is measured by reference to the fair value of the shares or share options on the date the award is and takes into account non-vesting conditions and market performance conditions (conditions related to the market price of RBSG shares): an award is treated as vesting irrespective of whether any market performance condition or non-vesting condition is met. The fair value of options is estimated using valuation techniques which incorporate exercise price, term, risk-free interest rates, the current share price and its expected volatility. The cost is expensed on a straight-line basis over the vesting period (the period during which all the specified vesting conditions must be satisfied) with a corresponding increase in equity in an equity-settled award, or a corresponding liability in a cash-settled award. The cost is adjusted for vesting conditions (other than market performance conditions) so as to reflect the number of shares or share options that actually vest.

If an award is modified, the original cost continues to be recognised as if there had been no modification. Where modification increases the fair value of the award, this increase is recognised as an expense over the modified vesting period. A new award of shares or share options is treated as the modification of a cancelled award if, on the date the new award is, the Group identifies them as replacing the cancelled award. The cancellation of an award through failure to meet non-vesting conditions triggers an immediate expense for any unrecognised element of the cost of an award.

24. Cash and cash equivalents

In the cash flow statement, cash and cash equivalents comprises cash and deposits with banks with an original maturity of less than three months together with short-term highly liquid investments that are readily convertible to known amounts of cash and subject to insignificant risk of change in value.

Critical accounting policies and key sources of estimation uncertainty

The reported results of the Group are sensitive to the accounting policies, assumptions and estimates that underlie the preparation of its financial statements. UK company law and IFRS require the directors, in preparing the Group's financial statements, to select suitable accounting policies, apply them consistently and make judgements and estimates that are reasonable and prudent. In the absence of an applicable standard or interpretation, IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, requires management to develop and apply an accounting policy that results in relevant and reliable information in the light of the requirements and guidance in IFRS dealing with similar and related issues and the IASB is Conceptual Framework for Financial Reporting. The judgements and assumptions involved in the Group is accounting policies that are considered by the Board to be the most important to the portrayal of its financial condition are discussed below. The use of estimates, assumptions or models that differ from those adopted by the Group would affect its reported results

Critical accounting policy	Note
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Accounting Developments

International Financial Reporting Standards

A number of IFRS s and amendments to IFRS were in issue at 31 December 2018 that would affect the Group from 1 January 2019 or later

Effective 1 January 2019

IFRS 16 Leases was issued in January 2016 to replace IAS 17 Leases. The Group will apply the standard with effect from 1 January 2019. Lessees will capitalise operating leases through the recognition of assets representing the contractual rights of use. The present value of contractual payments will be recognised as lease liabilities.

The Group has new models and processes to implement IFRS 16. The most significant impact from initially applying IFRS 16 will be to recognise rights of use assets in respect of branches and office properties leased by the Group under contracts classified as operating leases under IAS 17. The present value of other contracts is immaterial. The Group will apply IFRS 16 on a modified retrospective basis without restating prior years and electing for the following exemptions on transition at 1 January 2019. The Group will

- apply IFRS 16 to contracts previously identified as leases by IAS 17
- use the incremental borrowing rate as the discount rate
- not apply IFRS 16 to operating leases with a remaining lease term of less than 12 months or low value leases (non property leases)

•	rely on the assessment of whether the lease contract is onerous under IAS 37 at 31 December 2018 as an alternative to performing an
impairment	t review of the right of use assets created on 1 January 2019 Where this is the case the carrying amount of the assets will be adjusted by
the onerou	is lease provision.

 exclude initial direct costs from the measurement of the right of use ass 		exclude initial	direct costs	from the	measurement	of the rig	ht of use a	isse
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The opening balance sheet at 1 January 2019 will be adjusted to create a right of use asset of approximately £1.3 billion. A lease liability will also be recognised of £1.9 billion. Retained earnings will decrease by £0.2 billion after tax. This will have an estimated impact of 21 basis points on the CET 1 ratio. Application of IFRS 16 by the Group is not expected to have a significant impact on lessor accounting or for finance lease accounting by lessees.

Effective after 2019

IFRS 17 Insurance contracts was issued in May 2017 to replace IFRS 4 and to establish a comprehensive standard for inceptors of insurance policies. The effective date is 1 January 2021, subject to IASB s approval of a deferral until 1 January 2022.

In February 2018 the IASB amended IAS 19 Employee Benefits to clarify the need to update assumptions whenever there is a plan amendment, curtailment or settlement.

The Group is assessing the effect of adopting these standards on its financial statements.

Notes on the consolidated accounts

1 Net interest income

	2018	2017	2016
	£m	£m	£m
Loans to banks - amortised cost	522	277	246
Loans to customers - amortised cost	9,993	10,409	10,706
Other financial assets	534	348	306
Interest receivable (1)	11,049	11,034	11,258
Balances with banks	250	175	97
Customer deposits: demand	223	99	433
Customer deposits: savings	510	445	432
Customer deposits: other time	116	179	190
Other financial liabilities	791	554	557
Subordinated liabilities	461	572	845
Internal funding of trading businesses	42	23	(4)
Interest payable (1)	2,393	2,047	2,550
Net interest income	8,656	8,987	8,708

Note:

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

2 Non-interest income

2 Non-interest income			
2 No. 1 Meliost Medius	2018 £m	2017 £m	2016 £m
Net fees and commissions	2,357	2,455	2,535
Loss on redemption of own debt		(7)	(126)
Income from trading activities	040	F0F	000
Foreign exchange	643	525	989
Interest rate	695	(50)	(480)
Credit	45	197	336
Changes in fair value of own debt and derivative liabilities attributable to own credit			
- debt securities in issue	72	12	87
- derivative liabilities	20	(81)	67
Equities, commodities and other	32	31	(25)
	1,507	634	974
Other operating income	,		
Operating lease and other rental income	256	276	287
Changes in the fair value of financial assets and liabilities designated at fair value through profit or loss	(26)	60	(13)
Changes in the fair value of own debt designated as at fair value through profit or loss	(=0)		()
attributable to own credit risk			
- debt securities in issue			41
- subordinated liabilities			(15)
Changes in fair value of other financial assets fair value through profit or loss	18		
Hedge ineffectiveness	(65)	39	

Profit/(loss) on disposal of amortised cost assets	44	(35)	(277)
Profit on disposal of fair value through other comprehensive income assets	34	226	71
Profit on sale of property, plant and equipment	50	75	18
Share of profits of associated entities	83	104	59
(Loss)/profit on disposal of subsidiaries and associates	(72)	245	273
Other income (1)	560	74	55
	882	1,064	499
Non-interest income	4,746	4,146	3,882

Note:

(1) Includes income from activities other than banking. 2018 includes insurance recoveries of £357 million.

Notes on the consolidated accounts

3 Operating expenses

o operating expenses	2018	2017	2016
	£m	£m	£m
Salaries Variable compensation Social security costs Pension costs Other Staff costs	3,002	3,180	3,771
	225	298	281
	307	318	388
	401	467	357
	187	413	327
	4,122	4,676	5,124
Premises and equipment UK bank levy Depreciation and amortisation	1,383	1,565	1,388
	179	215	190
	731	808	778
Other administrative expenses (1) Administrative expenses Write down of goodwill and other intangible assets	3,193	3,108	8,555
	5,486	5,696	10,911
	37	29	159
	9,645	10,401	16,194

Note:

(1) Includes litigation and conduct costs, net of amounts recovered. Refer to Notes 20 and 27 for further details.

The average number of persons employed, rounded to the nearest hundred, during the year, excluding temporary staff, was 67,600 (2017 - 73,400; 2016 - 82,400). The average number of temporary employees during 2018 was 4,000 (2017 - 5,000; 2016 - 6,700). The number of persons employed at 31 December, excluding temporary staff, by reportable segment, was as follows:

	2018	2017	2016
UK Personal Banking	23,400	19,500	22,600
Ulster Bank Rol	2,900	2,600	3,000
Personal & Ulster	26,300	22,100	25,600
Commercial Banking	10,200	6,900	8,100
Private Banking	1,900	1,500	1,700
Commercial & Private Banking	12,100	8,400	9,800
RBS International	1,600	1,600	800
NatWest Markets	4,500	5,300	1,500
Central items & other	20,900	32,300	39,300
Total	65,400	69,700	77,000
UK	46,600	51,200	57,300
USA	500	500	700
Europe	4,100	4,200	5,200
Rest of the World	14,200	13,800	13,800
Total	65,400	69,700	77,000

During 2018 the reporting lines of central and support staff directly supporting a reportable Group segment were realigned to that segment.

Share-based payments

As described in the Remuneration report, the Group grants share-based awards to employees principally on the following bases:

Award plan	Eligible employees	Nature of award	Vesting conditions (1)	Settlement
Sharesave	UK, Republic of Ireland, Channel Islands, Gibraltar and Isle of Man	Option to buy shares under employee savings plan	Continuing employment or leavers in certain circumstances	2019 to 2023
Deferred performance awards	All	Awards of ordinary shares	Continuing employment or leavers in certain circumstances	2019 to 2025
Long-term incentives (2)		Awards of conditional shares or share options	Continuing employment or leavers in certain circumstances and/or achievement of performance conditions	2019 to 2025

Notes:

- (1) All awards have vesting conditions and therefore some may not vest.
- (2) Long-term incentives include the Executive Share Option Plan, the Long-Term Incentive Plan and the Employee Share Plan.

3 Operating expenses continued

The fair value of options granted in 2018 was determined using a pricing model that included: expected volatility of shares determined at the grant date based on historical volatility over a period of up to five years; expected option lives that equal the vesting period; no dividends on equity shares; and risk-free interest rates determined from UK gilts with terms matching the expected lives of the options.

The strike price of options and the fair value on granting awards of fully paid shares is the average market price over the five trading days (three trading days for Sharesave) preceding grant date.

Sharesave	201	8	201	7	2016		
	Average	Shares	Average	Shares	Average	Shares	
	exercise price	under option	exercise price	under option	exercise price	under option	
	£	(million)	£	(million)	£	(million)	
At 1 January	2.38	60	2.46	56	2.87	56	
Granted	1.89	28	2.27	21	1.68	17	
Exercised	2.44	(4)	2.46	(3)	2.37		
Cancelled	2.46	(9)	2.49	(14)	3.02	(17)	
At 31 December	2.18	75	2.38	60	2.46	56	

Options are exercisable within six months of vesting; 4.9 million options were exercisable at 31 December 2018 (2017 3.7 million; 2016 8.1 million). The weighted average share price at the date of exercise of options was £2.13 (2017 - £2.77; 2016 - £1.78). At 31 December 2018, exercise prices ranged from £1.68 to £3.43 (2017 - £1.68 to £4.34; 2016 - £1.68 to £4.34) and the remaining average contractual life was 2.9 years (2017 - 2.9 years; 2016 2.9 years). The fair value of options granted in 2018 was £21 million (2017 - £21 million; 2016 - £18 million).

Deferred performance awards	2018		2017		2016	
	Value at	Shares	Value at	Shares	Value at	Shares
	grant	awarded	grant	awarded	grant	awarded
	£m	(million)	£m	(million)	£m	(million)
At 1 January	264	101	296	102	276	80
Granted	156	59	152	63	170	75
Forfeited	(21)	(8)	(11)	(4)	(19)	(7)
Vested	(166)	(60)	(173)	(60)	(131)	(46)
At 31 December	233	92	264	101	296	102

The awards granted in 2018 vest in equal tranches on their anniversaries, predominantly over three years.

Long-term incentives

3 11		2018			2017			2016	
	Value	Shares	Options	Value at	Shares	Options	Value at	Shares	Options
			over			over			over
	at grant	awarded	shares	grant	awarded	shares	grant	awarded	shares
	£m	(million)	(million)	£m	(million)	(million)	£m	(million)	(million)
At 1 January	102	37	2	119	38	4	153	44	5
Granted	12	5		35	15		37	16	
Vested/exercised	(5)	(2)		(22)	(7)		(39)	(12)	
Lapsed	(24)	(8)		(30)	(9)	(2)	(32)	(10)	(1)
At 31 December	85	32	2	102	37	2	119	38	4

The market value of awards vested/exercised in 2018 was £5 million (2017 - £22 million; 2016 - £40 million). There are vested options of 2 million shares exercisable up to 2020 (2017 - 2 million; 2016 - 4 million).

3 Operating expenses continued

Variable compensation awards

The following tables analyse the Group s variable compensation awards for 2018.

Non-deferred cash awards (1) Total non-deferred variable compensation Deferred bond awards Deferred share awards Total deferred variable compensation Total variable compensation (2) Variable compensation as a % of operating profit before tax (3) Proportion of variable compensation that is deferred of which - deferred bond awards			2018 £m 37 37 191 107 298 335 9% 89%	2017 £m 51 51 134 157 291 342 13% 85%	Change % (27) (27) 43 (32) 2 (2)
- deferred share awards			36%	54%	
Reconciliation of variable compensation awards to income statement charge Variable compensation awarded Less: deferral of charge for amounts awarded for current year Income statement charge for amounts awarded in current year			2018 £m 335 (130) 205	2017 £m 342 (133) 209	2016 £m 343 (103) 240
Add: current year charge for amounts deferred from prior years Less: forfeiture of amounts deferred from prior years Income statement charge for amounts deferred from prior years			86 (66) 20	96 (7) 89	147 (106) 41
Income statement charge for variable compensation (2)			225	298	281
		Actual		Expect	ed
Year in which income statement charge is expected to be taken for deferred variable compensation Variable compensation deferred from 2016 and earlier Variable compensation deferred from 2017 Less: forfeiture of amounts deferred from prior years Variable compensation for 2018 deferred	2016 £m 147 (106)	2017 £m 96 (7)	2018 £m 5 81 (66)	2019 an £m 9 22 89	2020 d beyond £m 4 15
	41	89	20	120	60

Notes:

- (1) Cash awards are limited to £2,000 for all employees.
- (2) Excludes other performance related compensation.
- (3) Operating profit before tax and variable compensation expense. This was previously measured against adjusted operating profit before variable compensation expense (2017: 7%).

4 Segmental analysis

Reportable segments

The directors manage RBS primarily by class of business and present the segmental analysis on that basis. This includes the review of net interest income for each class of business. Interest receivable and payable for all reportable segments is therefore presented net. Segments charge market prices for services rendered between each other; funding charges between segments are determined by RBS Treasury, having regard to commercial demands. The segment performance measure is operating profit/(loss).

Reportable operating segments

In Q1 2019 and effective from 1 January 2019, Business Banking has been transferred from UK Personal and Business Bank (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. 2018 and comparatives have been retrospectively revised, or restated, in this Note as well as Note 3 and other segmental disclosures in Capital and risk management section. Concurrent with the transfer, the reportable operating segments have been renamed as follows:

Personal & Ulster comprises two reportable segments: UK Personal Banking and Ulster Bank Rol. UK Personal Banking serves individuals and mass affluent customers in the UK and includes Ulster Bank customers in Northern Ireland. Ulster Bank Rol serves individuals and businesses in the Republic of Ireland (Rol).

Commercial & Private Banking (CPB) comprises two reportable segments: Commercial Banking and Private Banking. Commercial Banking serves small businesses, commercial and corporate customers in the UK. Private Banking serves UK high net worth individuals and their business interests.

RBS International (RBSI) serves retail, commercial, corporate and financial institution customers in Jersey, Guernsey, Isle of Man and Gibraltar and financial institution customers in Luxembourg and London.

NatWest Markets helps global financial institutions and corporates manage their financial risks and achieve their short and long-term financial goals while navigating changing markets and regulation. NatWest Markets does this by providing global market access, financing, risk management and trading solutions from trading hubs in London, Singapore and Stamford with sales offices across key locations in the UK, EU, US and Asia.

Central items & other includes corporate functions, such as RBS Treasury, finance, risk management, compliance, legal, communications and human resources. Central functions manages RBS capital resources and RBS-wide regulatory projects and provides services to the reportable segments. Balances in relation to legacy litigation issues and the international private banking business are included in Central items in the relevant

periods.

Allocation of central balance sheet 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.

	Net interest income co	Net fees and mmissions	Other non-interest income	Total income	Operating	Depreciation and amortisation	Impairment (losses)/ releases	Operating profit/(loss)
2018	£m	£m	£m	£m	£m	£m	£m	£m
UK Personal Banking	4,283	692	79	5,054	(2,867)	~	(339)	1,848
Ulster Bank Rol	444	91	75	610	(583)		(15)	12
			_		()		(- /	
Personal & Ulster	4,727	783	154	5,664	(3,450)		(354)	1,860
Commercial Banking	2,855	1,283	464	4,602	(2,362)	(125)	(147)	1,968
Private Banking	518	228	29	775	(476)	(2)	` 6	303
•								
Commercial & Private Banking	3,373	1,511	493	5,377	(2,838)	(127)	(141)	2,271
RBS International	466	101	27	594	(254)	(6)	2	336
NatWest Markets	112	(33)	1,363	1,442	(1,589)	(15)	92	(70)
Central items & other	(22)	(5)	352	325	(783)	(583)	3	(1,038)
Total	8,656	2,357	2,389	13,402	(8,914)	(731)	(398)	3,359
2017								
UK Personal Banking	4,342	724	216	5,282	(3,241)		(207)	1,834
Ulster Bank Rol	421	94	89	604	(676)		(60)	(132)
Personal & Ulster	4,763	818	305	5,886	(3,917)		(267)	1,702
Commercial Banking	3,074	1,405	200	4,679	(2,458)	(144)	(390)	1,687
Private Banking	464	179	35	678	(529)		(6)	143
0	0.500	4.504	225	E 0.57	(0.007)	(4.44)	(000)	4 000
Commercial & Private Banking	3,538	1,584	235	5,357	(2,987)	(144)	(396)	1,830
DDO leteresticas	005	40	00	000	(047)	(0)	(0)	4.07
RBS International	325	42	22	389	(217)	(2)	(3)	167
NatWest Markets	203	24	823	1,050	(2,250)	49	174	(977)
Central items & other	158	(13)	306	451	(222)	(711)	(1)	(483)
Total	8,987	2,455	1,691	13,133	(9,593)	(808)	(493)	2,239
2016	4.405	770	40	4.000	(0.075)	0	(4.40)	4.400
UK Personal Banking	4,185	779	16	4,980	(3,675)	2	(119)	1,188
Ulster Bank Rol	409	82	85	576	(669)		113	20
Developed 9 Illetor	4 504	001	101	E EEC	(4.044)	0	(C)	1 000
Personal & Ulster	4,594	861	101	5,556	(4,344)	2	(6)	1,208
Commercial Banking	2.903	1 200	260	4 500	(0.007)	(1.40)	(010)	1 000
	2,903 449	1,399 181	260 27	4,562 657	(2,927)	(143)	(212)	1,280 111
Private Banking	449	101	21	657	(549)		3	111
Commercial & Private Banking	3,352	1,580	287	5,219	(3,476)	(143)	(209)	1,391
Commercial & Filvate Daliking	3,332	1,500	207	5,219	(3,476)	(143)	(209)	1,001
RBS International	303	50	21	374	(174)		(10)	190
NatWest Markets	343	55	814	1,212	(2,810)	(14)	(253)	(1,865)
Central items & other	116		124	229	· · · · · · · · · · · · · · · · · · ·	(623)	(200)	V /
Total	8,708	(11)			(4,612)		(470)	(5,006)
IUIAI	0,708	2,535	1,347	12,590	(15,416)	(778)	(478)	(4,082)

4 Segmental analysis continued

		2018 Inter			2017 Inter			2016 Inter	
	External	U	Total		segment	Total		segment	Total
Total revenue	£m	£m	£m	£m	£m	£m	£m	£m	£m
UK Personal Banking	6,188	63	6,251	6,406		6,445	6,303	50	6,353
Ulster Bank Rol	668		668	676	(4)	672	660	1	661
Personal & Ulster	6,856	63	6,919	7,082	35	7,117	6,963	51	7,014
Commercial Banking	4,576	89	4.665	4,532	79	4,611	4,532	70	4,602
Private Banking	681	195	876	585		728	567	172	739
Commercial & Private Banking	5,257	284	5,541	5,117	222	5,339	5,099	242	5,341
RBS International	506	148	654	309	119	428	313	156	469
NatWest Markets	1,882	916	2,798	1,408	809	2,217	1,708	1,539	3,247
Central items & other	2,155	(1,411)	744	2,147	(1,185)	962	1,862	(1,988)	(126)
Total	16,656	(, ,	16,656	16,063	, , ,	16,063	15,945	() /	15,945
Total income									
UK Personal Banking	5,021	33	5.054	5.265	17	5,282	4,953	27	4,980
Ulster Bank Rol	613	(3)	610	609	(5)	604	584	(8)	576
Personal & Ulster	5,634	30	5,664	5,874	12	5,886	5,537	19	5,556
Commercial Banking	5,079	(477)	4,602	5.051	(372)	4,679	4.949	(387)	4,562
Private Banking	655	`120 [′]	775	594	84	678	554	103	657
Commercial & Private Banking	5,734	(357)	5,377	5,645	(288)	5,357	5,503	(284)	5,219
RBS International	469	125	594	281	108	389	239	135	374
NatWest Markets	1,510	(68)	1,442	1.077		1.050	1,296	(84)	1,212
Central items & other	55	270	325	256	()	451	15	214	229
Total	13,402		13,402	13,133		13,133	12,590		12,590
Analysis of net fees and commissions 2018		UK PB Ba £m	Ulster Co ınk Rol £m	mmercial Banking £m	Private Banking Int £m	RBS ernational £m	NatWest Markets £m	Central items & other £m	Total £m
Fees and commissions receivable - Payment services - Credit and debit card fees - Lending (credit facilities) - Brokerage - Investment management, trustee and fiduciary - Trade finance	y services	227 402 408 62 49	34 22 29 6 4 2	556 175 415	33 13 2 5 191 1	25 29 42 4	3 88 85 3		878 612 971 158 286 132

- Underwriting fees - Other Total	13 2 1,163	1 98	17 60 1,345	16 261	2 102	144 67 390	(141) (141)	174 7 3,218
Fees and commissions payable Net fees and commissions	(471) 692	(7) 91	(62) 1,283	(33) 228	(1) 101	(423) (33)	136 (5)	(861) 2,357
2017								
Fees and commissions receivable								
- Payment services	194	30	543	37	24	1		829
- Credit and debit card fees	451	27	175	12				665
- Lending (credit facilities)	436	30	497	2	10	83	2	1,060
- Brokerage	69	10		6		63		148
- Investment management, trustee and fiduciary services	72	4	35	133	4	1		249
- Trade finance		2	164	1	3	3		173
- Underwriting fees						157		157
- Other	1		51	15	2	132	(144)	57
Total	1,223	103	1,465	206	43	440	(142)	3,338
Fees and commissions payable	(499)	(9)	(60)	(27)	(1)	(416)	129	(883)
Net fees and commissions	724	94	1,405	179	42	24	(13)	2,455

4 Segmental analysis continued

		UK PB	Bank Rol	Commercial Banking		International	NatWest Markets	Central items	Total
2016		£m	£m	£m	£m	£m	£m	£m	£m
Fees and commissions receivable - Payment services - Credit and debit card fees - Lending (credit facilities) - Brokerage - Investment management, trustee and fiduciary - Trade finance - Underwriting fees - Other Total	services	215 437 416 63 84 4 1,219	27 25 30 7 3 2	534 163 490 1 37 158 68 1,451	32 18 2 7 118 1	24 2 11 1 (3) 5	24 95 71 30 83 202 505	4 11 (211) (196)	856 645 1,044 154 250 196 83 112 3,340
Fees and commissions payable Net fees and commissions		(440) 779	(12) 82	(52) 1,399	(25) 181	(11) 50	(450) 55	185 (11)	(805) 2,535
	Assets	2018	Liabilitie			Liabilities	Assets	2016	Liabilities
UK Personal Banking Ulster Bank Rol	£m 171,011 25,193		£ 148,79 21,18	166,5		£m 145,104 19,853	£m 157,296 24,111		£m 136,744 19,299
Personal & Ulster	196,204		169,98	31 191,1	24	164,957	181,407		156,043
Commercial Banking Private Banking	166,478 21,983		139,80 28,55			143,450 27,049	174,514 18,578		140,737 26,673
Commercial & Private Banking	188,461		168,35	58 193,9	11	170,499	193,092		167,410
RBS International NatWest Markets Central items & other Total	28,398 244,531 36,641 694,235		27,66 227,39 54,34 647,74	99 277,8 14 49,2	86 68	29,077 248,553 75,877 688,963	23,420 372,496 28,241 798,656		25,280 340,471 60,048 749,252

Segmental analysis of goodwill is as follows:

	Commercial &				
	UK				
Pe	ersonal	Private	RBS		
Ва	anking	Banking	International	Total	
	£m	£m	£m	£m	
At 1 January 2017 and 31 December 2017	2,651	2,607	300	5,558	
Acquisitions	48			48	
Inter-segment transfers	(9)	9			
At 31 December 2018	2,690	2,616	300	5,606	

4 Segmental analysis continued

Geographical segments

The geographical analysis in the tables below has been compiled on the basis of location of office where the transactions are recorded.

2018 Total revenue	UK £m 15,351	USA £m 300	Europe £m 838	RoW £m 167	Total £m 16,656
Net interest income Net fees and commissions Income from trading activities Other operating income Total income	8,223 2,183 1,308 467 12,181	12 124 119 255	404 102 68 229 803	29 60 7 67 163	8,656 2,357 1,507 882 13,402
Operating profit/(loss) before tax Total assets Total liabilities Net assets attributable to equity owners and non-controlling interests Contingent liabilities and commitments	3,805 624,228 588,185 36,043 121,267	(718) 32,573 31,329 1,244	150 34,441 27,183 7,258 5,408	122 2,993 1,048 1,945 208	3,359 694,235 647,745 46,490 126,883
2017 Total revenue	15,011	192	655	205	16,063
Net interest income Net fees and commissions Income from trading activities Other operating income Total income	8,611 2,192 570 806 12,179	(4) 97 83 22 198	346 113 (24) 121 556	34 53 5 108 200	8,987 2,455 634 1,057 13,133
Operating profit/(loss) before tax Total assets Total liabilities Net assets attributable to equity owners and non-controlling interests Contingent liabilities and commitments	3,230 662,314 626,103 36,211 128,127	(580) 38,485 36,564 1,921 78	(485) 34,280 25,171 9,109 7,823	74 2,977 1,125 1,852 22	2,239 738,056 688,963 49,093 136,050
2016 Total revenue	14,606	264	738	337	15,945
Net interest income Net fees and commissions Income from trading activities Other operating income Total income	8,243 2,287 790 261 11,581	82 9 159 (40) 210	302 175 18 9 504	81 64 7 143 295	8,708 2,535 974 373 12,590

Operating (loss)/profit before tax	(2,214)	(1,652)	(266)	50	(4,082)
Total assets	715,685	44,447	32,142	6,382	798,656
Total liabilities	675,089	44,513	26,311	3,339	749,252
Net assets attributable to equity owners and non-controlling interests	40,596	(66)	5,831	3,043	49,404
Contingent liabilities and commitments	141,963	639	8,038	51	150,691

5 Pensions

Defined contribution schemes

The Group sponsors a number of defined contribution pension schemes in different territories, which new employees are offered the opportunity to join.

Defined benefit schemes

The Group sponsors a number of pension schemes in the UK and overseas, including the Main section of The Royal Bank of Scotland Group Pension Fund (the Main section) which operates under UK trust law and is managed and administered on behalf of its members in accordance with the terms of the trust deed, the scheme rules and UK legislation.

Pension fund trustees are appointed to operate each fund and ensure benefits are paid in accordance with the scheme rules and national law. The trustees are the legal owner of a scheme s assets, and have a duty to act in the best interests of all scheme members.

The schemes generally provide a pension of one-sixtieth of final pensionable salary for each year of service prior to retirement up to a maximum of 40 years and are contributory for current members. These have been closed to new entrants for over ten years, although current members continue to build up additional pension benefits, currently subject to 2% maximum annual salary inflation, while they remain employed by the Group.

The Main section corporate trustee is RBS Pension Trustee Limited (the Trustee), a wholly owned subsidiary of National Westminster Bank Plc, Principal Employer of the Main section. The Board of the Trustee comprises four member trustee directors selected from eligible active staff, deferred and pensioner members who apply and six appointed by the Group. Under UK legislation a defined benefit pension scheme is required to meet the statutory funding objective of having sufficient and appropriate assets to cover its liabilities (the pensions that have been promised to members).

Similar governance principles apply to the Group s other pension schemes.

Investment strategy

The assets of the Main section, which is typical of other group schemes, represent 90% of plan assets at 31 December 2018 (2017 - 90%) and are invested in a diversified portfolio as shown below.

The Main section employs derivative instruments to achieve a desired asset class exposure and to reduce the section s interest rate, inflation and currency risk. This means that the net funding position is considerably less sensitive to changes in market conditions than the value of the assets or liabilities in isolation.

		2018			2017	
Major classes of plan assets as a percentage of	Quoted	Unquoted	Total	Quoted	Unquoted	Total
total plan assets of the Main section	%	%	%	%	%	%
Equities	3.7%	5.2%	8.9%	21.9%	4.0%	25.9%
Index linked bonds	40.1%		40.1%	30.6%		30.6%
Government bonds	12.9%		12.9%	9.2%		9.2%
Corporate and other bonds	12.2%	5.2%	17.4%	15.8%	1.0%	16.8%
Real estate		5.5%	5.5%		5.2%	5.2%
Derivatives		6.1%	6.1%		8.1%	8.1%
Cash and other assets		9.1%	9.1%		4.2%	4.2%
	68.9%	31.1%	100.0%	77.5%	22.5%	100.0%

The Main section s holdings of derivative instruments are summarised in the table below:

	2018			2017		
	Notional	Fair value		Notional	Fair value	
	amounts	Assets	Liabilities	amounts	Assets	Liabilities
	£bn	£m	£m	£bn	£m	£m
Inflation rate swaps	13	347	502	11	310	555
Interest rate swaps	55	8,132	5,362	44	8,161	4,779
Currency forwards	10	22	164	12	160	34
Equity and bond call options	1	277		2	428	
Equity and bond put options	4	3	1	3	3	1
Other	4	1,027	1,092	4	327	444

Swaps have been executed at prevailing market rates and within standard market bid/offer spreads with a number of counterparty banks, including NatWest Markets Plc.

At 31 December 2018, the gross notional value of the swaps was £72 billion (2017 - £57 billion) and had a net positive fair value of £2,557 million (2017 - £3,045 million) against which the banks had posted approximately 103% collateral.

The schemes do not invest directly in the Group but can have exposure to the Group. The trustees of the respective UK schemes are responsible for ensuring that indirect investments in the Group do not exceed the 5% regulatory limit.

5 Pensions continued

	Main section				All schemes			
		Present				Present		
		value	Asset	Net		value	Asset	Net
	Fair	of defined	ceiling/	pension	Fair	of defined	ceiling/	pension
	value of	benefit	minimum	liability/	value of	benefit	minimum	liability/
	plan		funding		plan		funding	
	assets	obligation	(1)	(asset)	assets	obligation	(1)	(asset)
Changes in value of net pension								
liability/(asset)	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2017	43,824	38,851	4,973		49,229	43,990	5,326	87
Currency translation and other								
adjustments					46	46	3	3
Income statement	1,155	1,266	134	245	1,285	1,518	142	375
Statement of comprehensive income	1,580	(9)	1,608	19	1,728	4	1,634	(90)
Contributions by employer	264	· /	•	(264)	627		,	(627)
Contributions by plan participants and				(-)				(-)
other scheme members	4	4			10	10		
Liabilities extinguished upon		•						
settlement					(744)	(755)		(11)
Benefits paid	(2,175)	(2,175)			(2,435)	(2,435)		()
At 1 January 2018	44,652	37,937	6,715		49,746	42,378	7,105	(263)
Currency translation and other	44,002	07,007	0,710		40,740	42,070	7,100	(200)
adjustments					20	17	(1)	(4)
Income statement					20	17	(1)	(4)
Net interest expense	1,123	939	171	(13)	1,242	1,043	179	(20)
Current service cost	1,123	190	171	190	1,242	240	179	240
Past service cost		14		14		14		14
Loss on curtailments or settlements		14		14		74		74
Loss on curtaiments or settlements	1 100	1 1 4 0	171	101	1 040	1,371	179	308
Ctatament of comprehensive income	1,123	1,143	171	191	1,242	1,3/1	179	308
Statement of comprehensive income								
Return on plan assets excluding	(4.004)			1 001	(0.000)			0.000
recognised interest income	(1,891)	122		1,891	(2,090)	81		2,090
Experience gains and losses		122		122		81		81
Effect of changes in actuarial financial		(0.000)		(0.000)		(0.507)		(0.507)
assumptions		(2,338)		(2,338)		(2,537)		(2,537)
Effect of changes in actuarial		000		000		000		000
demographic assumptions		820		820		826		826
Asset ceiling adjustments:								
Attributable to contributions required			0.000	6.555			0.555	- -
by ring fencing			2,000	2,000			2,053	2,053
Other movements in the year			(468)	(468)			(546)	(546)
	(1,891)	(1,396)	1,532	2,027	(2,090)	(1,630)	1,507	1,967
Contributions by employer	2,218			(2,218)	2,363			(2,363)
Contributions by plan participants and								
other scheme members	7	7			12	12		
Liabilities extinguished upon								
settlement					(259)	(259)		
	(276)	(198)	(78)					

Transfer of pension assets and liabilities from Main section (2)

Benefits paid (2,027) (2,027) (2,282)
At 31 December 2018 43,806 35,466 8,340 48,752 39,607 8,790 (355)

Notes:

- (1) The group recognises the net pension scheme surplus or deficit as a net asset or liability. In doing so, the funded status is adjusted to reflect any schemes with a surplus that the Group may not be able to access, as well as any minimum funding requirement to pay in additional contributions. This is most relevant to the Main section, where the surplus is not recognised.
- (2) Includes adjustment for assets of £276 million and liabilities of £198 million transferred at no consideration to establish two separate sections of the RBS Group Pension Fund because ring-fencing rules do not allow employees outside the ring-fenced group to be members of the Main section.
- (3) The Group expects to make contributions to the Main section of £218 million in 2019.

	All schemes		
	2018	2017	
Amounts recognised on the balance sheet	£m	£m	
Fund assets at fair value	48,752	49,746	
Present value of fund liabilities	39,607	42,378	
Funded status	9,145	7,368	
Asset ceiling/minimum funding	8,790	7,105	
	355	263	
Net pension asset/(liability) comprises Net assets of schemes in surplus (included in Other assets, Note 17) Net liabilities of schemes in deficit (included in Other liabilities, Note 20)	2018 £m 520 (165) 355	£m 392 (129)	

5 Pensions continued

Funding and contributions by the Group

In the UK, the trustees of defined benefit pension schemes are required to perform funding valuations every three years. The trustees and the sponsor, with the support of the Scheme Actuary, agree the assumptions used to value the liabilities and a Schedule of Contributions required to eliminate any funding deficit. The funding assumptions incorporate a margin for prudence over and above the expected cost of providing the benefits promised to members, taking into account the sponsor s covenant and the investment strategy of the scheme. Similar arrangements apply in the other territories where the Group sponsors defined benefit pension schemes. The last funding valuation of the Main section was at 31 December 2017 and next funding valuation is due at 31 December 2020, to be agreed by 31 March 2022.

The triennial funding valuation of the Main section as at 31 December 2017 determined the funding level to be 96%, pension liabilities to be £47 billion and the deficit to be £2 billion, which was eliminated by a £2 billion cash payment in October 2018. The average cost of the future service of current members is 44% of basic salary before administrative expenses and contributions from those members.

In October 2018 the Court ruled on the requirement to and method for equalising guaranteed minimum pension benefits arising between 1990 and 1997 between men and women. In 2017 the Group considered that equalisation would change the Main section s defined benefit obligation by 0.2%. The estimate was updated following the clarity provided by the Court ruling and the impact of any future conversion exercise to rectify the position. The £102 million cost on revision of the previous estimate of the financial assumptions in respect of equalisation is recognised in equity.

Assumptions

Placing a value on the Group's defined benefit pension schemes liabilities requires the Group's management to make a number of assumptions, with the support of independent actuaries. The ultimate cost of the defined benefit obligations depends upon actual future events and the assumptions made are unlikely to be exactly borne out in practice, meaning the final cost may be higher or lower than expected.

The most significant assumptions used for the Main section are shown below:

	'	al IAS 19 actuarial imptions	Principal assumptions of 2017 triennial valuation
	2018	2017	2017
	%	%	
Discount rate	2.9	2.6	Fixed interest swap yield curve plus 0.8% per annum
Inflation assumption (RPI)	3.2	3.1	RPI swap yield curve
Rate of increase in salaries	1.8	1.8	

Rate of increase in deferred pensions	3.1	3.0	
Rate of increase in pensions in payment	2.9	2.9	Modelled allowance for relevant caps and floors
Lump sum conversion rate at retirement	20	21	18%
Longevity at age 60:	years	years	
Current pensioners			
Males	27.2	27.2	28.1
Females	29.0	28.7	29.7
Future pensioners, currently aged 40			
Males	28.4	28.6	29.3
Females	30.5	30.4	31.5

Discount rate

The IAS 19 valuation uses a single discount rate by reference to the yield on a basket of high quality sterling corporate bonds. For the triennial valuation discounting is by reference to a yield curve.

The weighted average duration of the Main section s defined benefit obligation at 31 December 2018 is 20 years (2017 21 years).

Significant judgement is required when setting the criteria for bonds to be included in IAS 19 s basket of bonds that is used to determine the discount rate used in the valuations. The criteria include issue size, quality of pricing and the exclusion of outliers. Judgement is also required in determining the shape of the yield curve at long durations: a constant credit spread relative to gilts is assumed. Sensitivity to the main assumptions is presented below.

5 P	ane	ione	continu	IDA

The chart below shows the projected benefit payment pattern for the Main section in nominal terms. These cashflows are based on the most recent formal actuarial valuation, effective 31 December 2017.

The larger outflow in the first four years represents the expected level of transfers out to 31 December 2021.

The table below shows how the present value of the defined benefit obligation of the Main section would change if the key assumptions used were changed independently. In practice the variables are somewhat correlated and do not move completely in isolation.

			Increase in
			net pension
	(Decrease)/increase	(Decrease)/increase	assets/
	in value of assets	in value of liabilities	(obligations)
2018	£m	£m	£m
0.25% increase in interest rates/discount rate	(2,214)	(1,644)	(570)
0.25% increase in inflation	1,487	1,199	288
0.25% increase in credit spreads	(5)	(1,644)	1,639
Longevity increase of one year		1,414	(1,414)
0.25% additional rate of increase in pensions in payment		1,215	(1,215)
Increase in equity values of 10% (1)	419		419
2017			
0.25% increase in interest rates/discount rate	(2,218)	(1,964)	(254)
0.25% increase in inflation	1,289	1,329	(40)
0.25% increase in credit spreads	(7)	(1,964)	1,957
Longevity increase of one year		1,478	(1,478)
0.25% additional rate of increase in pensions in payment		1,328	(1,328)
Increase in equity values of 10% (1)	909		909

Note:

(1) Includes both quoted and private equity.

5 Pensions continued

The defined benefit obligation of the Main section is attributable to the different classes of scheme members in the following proportions:

	2018	2017
Membership category	%	%
Active members	12.9	16.2
Deferred members	48.6	47.3
Pensioners and dependants	38.5	36.5
	100.0	100.0

The experience history of Group schemes is shown below:

	Main section			All schemes						
	2018	2017	2016	2015	2014	2018	2017	2016	2015	2014
History of defined benefit	£m									
schemes		£m	£m	£m	£m	£m	£m	£m	£m	£m
Fair value of plan assets	43,806	44,652	43,824	30,703	30,077	48,752	49,746	49,229	34,708	34,359
Present value of										
plan obligations	35,466	37,937	38,851	30,966	31,776	39,607	42,378	43,990	35,152	36,643
Net surplus/(deficit)	8,340	6,715	4,973	(263)	(1,699)	9,145	7,368	5,239	(444)	(2,284)
Experience (losses)/gains on										
plan liabilities	(122)	(107)	658	233	3	(81)	(93)	794	258	18
Experience (losses)/gains on	` ,	, ,				, ,	, ,			
plan assets	(1,891)	1,580	8,562	(415)	4,629	(2,090)	1,728	9,254	(458)	5,171
Actual return on plan assets	(768)	2,735	9,872	703	5,766	(848)	3,013	10,708	749	6,485
Actual return on plan assets - %	(1.7%)	6.2%	32.2%	2.3%	23.8%	(1.7%)	6.1%	30.9%	2.2%	22.8%

6 Auditor s remuneration

Amounts paid to the Group s auditors for statutory audit and other services are set out below. All audit-related and other services are approved by the Group Audit Committee and are subject to strict controls to ensure the external auditor s independence is unaffected by the provision of other services. The Group Audit Committee recognises that for certain assignments the auditors are best placed to perform the work economically; for other work the Group selects the supplier best placed to meet its requirements. The Group s auditors are permitted to tender for such work in competition with other firms where the work is permissible under audit independence rules.

Amounts paid to the Group s auditors for statutory audit and other services are set out below:

	2018 £m	2017 £m	2016 £m
Fees payable for the audit of the Group s annual accounts(1)	3.5	4.0	4.0
- the audit of the company s subsidiaries(1)	27.5	22.9	20.7
- audit-related assurance services (1,2) Total audit and audit-related assurance services fees	2.9 33.9	4.3 31.2	4.0 28.7
Other assurance services	1.3	1.7	3.4
Corporate finance services (3) Non-audit services	0.2	0.2	0.2
Total other services	1.5	1.9	3.6

Notes:

- (1) The 2018 audit fee was approved by the Group Audit Committee. At 31 December 2018, £16 million has been billed in and paid in respect of 2018 Group audit fees.
- (2) Comprises fees of £1.1 million (2017 £1.1 million) in relation to reviews of interim financial information, £1.1 million (2017 £2.5 million) in respect of reports to the Group s regulators in the UK and overseas, £0.7 million (2017 £0.7 million) in relation to non-statutory audit opinions.
- (3) Comprises fees of £0.2 million (FY 2017 £0.2 million) in respect of work performed by the auditors as reporting accountants on debt and equity issuances undertaken by the Group.

7 Tax

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 (2017 - £93 million; 2016 - £59 million) was recognised in the statement of changes in equity for the year ended 31 December 2018; this and prior periods have been retrospectively revised, or restated, in this Note, Note 36 Consolidating financial information, consolidated Income statement, statement of comprehensive income and statement of changes in equity.

	2018 £m	2017 £m	2016 £m
Current tax:			
Charge for the year	(1,025)	(925)	(1,067)
Over provision in respect of prior years	125	227	186
	(900)	(698)	(881)
Deferred tax:			
(Charge)/credit for the year	(280)	108	246
Increase/(reduction) in the carrying value of deferred tax assets	7	(30)	(317)
Under provision in respect of prior years	(35)	(111)	(155)
Tax charge for the year	(1,208)	(731)	(1,107)

The actual tax charge differs from the expected tax (charge)/credit computed by applying the standard rate of UK corporation tax of 19% (2017 19.25%; 2016 20.00%) as follows:

	2018 £m	2017 £m	2016 £m
Expected tax (charge)/credit	(638)	(431)	816
Losses and temporary differences in year where no deferred tax asset recognised	(55)	(303)	(742)
Foreign profits taxed at other rates	(8)	104	340
UK tax rate change impact (1)		(7)	6
Items not allowed for tax:			
- losses on disposals and write-downs	(44)	(69)	(45)
- UK bank levy	(38)	(45)	(41)
- regulatory and legal actions	(203)	(56)	(952)
- other disallowable items	(63)	(110)	(141)
Non-taxable items	47	134	136
Taxable foreign exchange movements	(27)	27	(57)
Losses brought forward and utilised	14	11	10
Increase/(reduction) in carrying value of deferred tax asset in respect of:			
- UK losses	7	(30)	(317)
Banking surcharge	(357)	(165)	(210)
Adjustments in respect of prior years (2)	90	116	31
Tax credit on paid-in equity	67	93	59
Actual tax charge	(1,208)	(731)	(1,107)

Notes:

- (1) In recent years, the UK government has steadily reduced the rate of UK corporation tax, with the latest enacted rates standing at 19% from 1 April 2017 and 17% from 1 April 2020.
- (2) Prior year tax adjustments incorporate refinements to tax computations made on submission and agreement with the tax authorities. Current taxation balances include provisions in respect of uncertain tax positions, in particular in relation to restructuring and other costs where the taxation treatment remains subject to agreement with the relevant tax authorities.

Judgment: Tax contingencies

The Group s income tax charge and its provisions for income taxes necessarily involve a degree of estimation and judgement. The tax treatment of some transactions is uncertain and tax computations are yet to be agreed with the tax authorities in a number of jurisdictions. The Group recognises anticipated tax liabilities based on all available evidence and, where appropriate, in the light of external advice. Any difference between the final outcome and the amounts provided will affect current and deferred income tax charges in the period when the matter is resolved.

Deferred tax

	2018	2017
	£m	£m
Deferred tax asset	(1,412)	(1,740)
Deferred tax liability	454	583
Net deferred tax asset	(958)	(1,157)

7 Tax continued

Net deferred tax asset comprised:

		Accelerated			Tax losses		
		capital	Expense	Financial	carried		
	Pension	allowances	provisions in	struments	forward	Other	Total
	£m	£m	£m	£m	£m	£m	£m
At 1 January 2017	(662)	361	(322)	395	(1,050)	137	(1,141)
Acquisitions and disposals of subsidiaries		(29)					(29)
Charge/(credit) to income statement	3	(126)	55	46	121	(66)	33
Charge/(credit) to other comprehensive income	266			(243)		(19)	4
Currency translation and other adjustments		(14)	1		(10)	(1)	(24)
At 1 January 2018	(393)	192	(266)	198	(939)	51	(1,157)
Implementation of IFRS9 on 1 January 2018				16			16
(Credit)/charge to income statement	(40)	22	121	154	5	46	308
(Credit)/charge to other comprehensive income	(95)	1		(23)		33	(84)
Currency translation and other adjustments		5	(14)	4	(2)	(34)	(41)
At 31 December 2018	(528)	220	(159)	349	(936)	96	(958)

Deferred tax assets in respect of unused tax losses are recognised if the losses can be used to offset probable future taxable profits after taking into account the expected reversal of other temporary differences. Recognised deferred tax assets in respect of tax losses are analysed further below.

	2018	2017
	£m	£m
UK tax losses carried forward		
- NatWest Markets Plc	151	125
- National Westminster Bank Plc	505	541
- Ulster Bank Limited	19	14
Total	675	680
Overseas tax losses carried forward		
- Ulster Bank Ireland DAC	261	259
	936	939

Critical accounting policy: Deferred Tax

The deferred tax assets of £1,412 million at 31 December 2018 (2017 - £1,740 million) principally comprise losses that arose in the UK, and temporary differences. These deferred tax assets are recognised to the extent that it is probable that there will be future taxable profits to recover them.

Judgment - The Group has considered the carrying value of deferred tax assets and concluded that, based on management s estimates, sufficient taxable profits will be generated in future years to recover recognised deferred tax assets.

Estimate -These estimates are partly based on forecast performance beyond the horizon for management s detailed plans. They have regard to inherent uncertainties, such as Brexit and climate change.

UK tax losses - Under UK tax rules, tax losses can be carried forward indefinitely. As the recognised tax losses in the Group arose prior to 1 April 2015, credit in future periods is given against 25% of profits at the main rate of UK corporation tax, excluding the Banking Surcharge 8% rate introduced by The Finance (No. 2) Act 2015. Deferred tax assets and liabilities at 31 December 2018 take into account the reduced rates in respect of tax losses and temporary differences and where appropriate, the banking surcharge inclusive rate in respect of other banking temporary differences.

NatWest Markets Plc NatWest Markets Plc expects that the balance of recognised deferred tax asset at 31 December 2018 of £151 million in respect of tax losses amounting to approximately £800 million will be recovered by the end of 2024. Since 2012 NatWest Markets Plc has reported mixed levels of taxable profits and losses because core banking profitability was offset by a series of restructuring plans as the group reshaped to meet commercial and regulatory demands. In total, £10.2 billion of losses have not been recognised in the deferred tax balance at 31 December 2018; such losses will be available to offset 25% of future taxable profits in excess of those forecast in the closing deferred tax asset.

National Westminster Bank Plc A deferred tax asset of £505 million has been recognised in respect of total losses of £2,936 million. The losses arose principally as a result of significant impairment and conduct charges between 2009 and 2012 during challenging economic conditions in the UK banking sector. National Westminster Bank plc returned to tax profitability during 2015 and expects the deferred tax asset to be consumed by future taxable profits by the end of 2023.

7 Tax continued

Overseas tax losses

Ulster Bank Ireland DAC A deferred tax asset of £261 million has been recognised in respect of losses of £2,089 million of total losses of £8,855 million carried forward at 31 December 2018. The losses arose principally as a result of significant impairment charges between 2008 and 2013 during challenging economic conditions in the Republic of Ireland. Subsequent movements reflect the £: exchange differences. As UBIDAC continues to operate in a small open economy subject to short term volatility and extended non-performing loan realisation periods the company expects, in assessing its deferred tax asset on tax losses, that they will be consumed by future taxable profits by the end of 2027.

Unrecognised deferred tax

Deferred tax assets of £5,118 million (2017 - £6,356 million; 2016 - £7,940, million) have not been recognised in respect of tax losses and other temporary differences carried forward of £25,597 million (2017 - £30,049 million; 2016 - £33,376 million) in jurisdictions where doubt exists over the availability of future taxable profits. Of these losses and other temporary differences, £939 million expire within five years and £5,992 million thereafter. The balance of tax losses and other temporary differences carried forward has no expiry date.

Deferred tax liabilities of £257 million (2017 - £255 million; 2016 - £258 million) have not been recognised in respect of retained earnings of overseas subsidiaries and held-over gains on the incorporation of overseas branches. Retained earnings of overseas subsidiaries are expected to be reinvested indefinitely or remitted to the UK free from further taxation. No taxation is expected to arise in the foreseeable future in respect of held-over gains. Changes to UK tax legislation largely exempts from UK tax, overseas dividends received on or after 1 July 2009.

8 Earnings per share

3-1			
	2018 £m	2017 £m	2016 £m
Earnings			
Profit/(loss) attributable to ordinary shareholders	1,622	752	(6,955)
Weighted average number of shares (millions) Weighted average number of ordinary shares outstanding during the year	12,009	11,867	11,692
Effect of dilutive share options and convertible securities	52	69	51
Diluted weighted average number of ordinary shares outstanding during the	0-		· ·
year	12,061	11,936	11,743
9 Trading assets and liabilities			
Trading assets and liabilities comprise assets and liabilities held at fair value in trading portfolios.			
Assets Loans		2018 £m	2017 £m
Reverse repos Collateral given		24,759 19,036	36,272 21,558

Other loans Total loans	1,308 45,103	651 58,481
Securities		
Central and local government		
- UK	6,834	3,514
- US	4,689	3,667
- other	13,498	14,736
Other securities	4,995	5,593
Total securities	30,016	27,510
Total	75,119	85,991
Liabilities		
Deposits		
Repos	25,645	28,363
Collateral received	20,187	22,683
Other deposits	1,788	1,302
Total deposits	47,620	52,348
Debt securities in issue	903	1,107
Short positions	23,827	28,527
Total	72,350	81,982

10 Derivatives

Companies within RBS transact derivatives as principal either as a trading activity or to manage balance sheet foreign exchange, interest rate and credit risk.

	2018			2017		
	Notional amount	Assets	Liabilities	Notional amount	Assets	Liabilities
	£bn	£m	£m	£bn	£m	£m
Exchange rate contracts	3,426	36,545	38,230	3,425	39,211	41,681
Interest rate contracts	10,536	96,410	90,444	12,016	120,945	112,160
Credit derivatives	16	346	208	38	531	558
Equity and commodity contracts	1	48	15	3	156	107
		133,349	128,897		160,843	154,506

RBS enters into fair value hedges, cash flow hedges and hedges of net investments in foreign operations. The majority of RBS s interest rate hedges relate to the management of RBS s non-trading interest rate risk. RBS manages this risk within approved limits. Residual risk positions are hedged with derivatives principally interest rate swaps. Suitable larger financial instruments are fair value hedged; the remaining exposure, where possible, is hedged by derivatives documented as cash flow hedges.

The majority of RBS s fair value hedges involve interest rate swaps hedging the fixed interest rate risk in recognised financial assets and financial liabilities. Cash flow hedges relate to exposures to the variability in future interest payments and receipts due to the movement of benchmark interest rates or foreign exchange rates on forecast transactions and on recognised financial assets and financial liabilities. This variability in cash flows is hedged by interest rate swaps and forward foreign exchange contracts. RBS hedges its net investments in foreign operations with currency borrowings and forward foreign exchange contracts.

For cash flow hedge relationships of interest rate risk, the hedged items are actual and forecast variable interest rate cash flows arising from financial assets and financial liabilities with interest rates linked to the relevant benchmark rate LIBOR, EURIBOR or the Bank of England Official Bank Rate. The financial assets are loans to banks and customer and the financial liabilities are bank and customer deposits and LIBOR linked medium-term notes and other issued securities. The variability in cash flows due to movements in the relevant benchmark rate is hedged; this risk component is identified using the risk management systems of RBS. This risk component comprises the majority of cash flow variability risk.

For cash flow hedging relationships RBS determines that there is an economic relationship between the hedged item and hedging instrument via assessing the initial and ongoing effectiveness by comparing movements in the fair value of the expected highly probable forecast interest cash flows with movements in the fair value of the expected changes in cash flows from the hedging interest rate swap. Hedge effectiveness is measured on a cumulative basis over a time period management determines to be appropriate. The method of calculating hedge ineffectiveness is the hypothetical derivative method. RBS uses the actual ratio between the hedged item and hedging instrument to establish the hedge ratio for hedge accounting. For fair value hedge relationships of interest rate risk, the hedged items are typically large corporate fixed-rate loans, government securities, fixed rate finance leases, fixed rate medium-term notes or preference shares classified as debt. The hedged risk is the risk of changes in the hedged items fair value attributable to changes in the benchmark interest rate embedded in the hedged item. This risk component is identified using the risk management systems of RBS. This risk component comprises the majority of the hedged items fair value risk.

For fair value hedge relationships RBS determines that there is an economic relationship between the hedged items and hedging instrument via assessing the initial and ongoing effectiveness by comparing movements in the fair value of the hedged item attributable to the hedged risk with movements in the fair value of the expected changes in cash flows from the hedging interest rate swap. Hedge effectiveness is measured on a cumulative basis over a time period management determines to be appropriate. RBS uses either the actual ratio between the hedged item and hedging instrument(s) or one that minimises hedge ineffectiveness to establish the hedge ratio for hedge accounting. RBS hedges the currency risk of its net investment in foreign currency denominated operations with currency borrowings and forward foreign exchange contracts. RBS reviews the value of the investments net assets, executing hedges where appropriate to reduce the sensitivity of capital ratios to foreign exchange rate movement.

The Group hedges currency risk in respect of its net investment in foreign currency denominated operations with currency borrowings and forward foreign exchange contracts. The Group reviews the value of the investments net assets, executing hedges where appropriate, to reduce the sensitivity of capital ratios to foreign exchange movements.

Included in the table above are derivatives held for hedging purposes as follows:

	2018			2017		
	Notional £bn	Assets £m	Liabilities £m	Assets £m	Liabilities £m	
Fair value hedging						
Interest rate contracts	60.0	965	2,061	904	2,211	
Cash flow hedging						
Interest rate contracts	149.7	1,148	872	1,989	1,295	
Exchange rate contacts	12.5	106		63	37	
Net investment hedging						
Exchange rate contracts	2.0	32	10	11	28	
	224.2	2,251	2,943	2,967	3,571	

10 Derivatives continued

The following table shows the period in which the hedging contract ends:							
	0-3 months	3-12 months	1-3 years	3-5 years	5-10 years	10-20 years 20+ years	Total
Fair value hedging Hedging assets - Interest rate risk							
(£bn)	1.0	1.8	11.0	4.9	7.8	3.7 3.8	34.0
Hedging liabilities - Interest rate risk							
(£bn)		2.0	7.5	10.0	4.6	1.9	26.0
Cash flow hedging							
Hedging assets							
Interest rate risk (£bn)	3.9	10.9	47.8	8.7	10.5		81.8
Average fixed interest rate	1.87	1.44	1.13	2.00	1.43		1.33
Hedging liabilities							
Interest rate risk (£bn)	8.6	18.9	34.1	5.1	0.4	0.8	67.9
Average fixed interest rate	0.54	0.56	1.07	1.34	3.96	4.31	0.94
Exchange rate risk (£bn)			5.8	4.7	2.0		12.5
Average USD - £ rate			1.32	1.37	1.50		1.37
Net investment hedging							
Exchange rate risk (£bn)	1.2	0.6	0.2				2.0
Principal currency hedges							
Average SAR - £ rate	4.80	4.83	4.82				4.81
Average CHF - £ rate	1.22	1.23	1.18				1.21

The table below analyses assets and liabilities subject to hedging derivatives.

	Carrying value Impact or (CV) of hedged hedged items assets and			
2018 Fair value hedging - interest rate	liabilities £m	included in CV £m	gains or losses £m	
Loans to banks and customers - amortised cost Other financial assets - securities Total	6,197 31,879 38,076	875 362 1,237	91 10 101	
Other financial liabilities - debt securities in issue Subordinated liabilities Total	23,289 2,359 25,648	(19) 22 3		
Fair value hedging - exchange rate Other financial assets - securities	3			
Cash flow hedging - interest rate Loans to banks and customers - amortised cost	81,880			
Bank and customer deposits	67,854			

Cash flow hedging - exchange rate

Other financial liabilities - debt securities in issue	5,590
Subordinates liabilities	6,902
Total	12,492

10 Derivatives continued

Hedge ineffectiveness recognised in other operating income comprised:

	2018 £m	2017 £m	2016 £m
Fair value hedging			
Gains/(losses) on the hedged items attributable to the hedged risk	54	(48)	1,146
(Losses)/gains on the hedging instruments	(7)	78	(1,117)
Fair value hedging ineffectiveness	47	30	29
Cash flow hedging ineffectiveness	(112)	9	(29)
Total	(65)	39	

The main sources of ineffectiveness for interest rate risk hedge accounting relationships are:

- The effect of the counterparty credit risk on the fair value of the interest rate swap, which is not reflected in the fair value of the hedged item attributable to the change in interest rate (fair value hedge).
- Differences in the repricing basis between the hedging instrument and hedged cash flows (cash flow hedge); and
- Upfront present values on the hedging derivatives where hedge accounting relationships have been designated after the trade date (cash flow hedge and fair value hedge).

Additional information on cash flow hedging and hedging of net assets can be found in the Statement of Changes in Equity.

11 Financial instruments classification

The following tables analyse financial assets and liabilities in accordance with the categories of financial instruments on an IFRS 9 basis at 31 December 2018 and on an IAS39 basis at 31 December 2017. Assets and liabilities outside the scope of IFRS 9/IAS 39 are shown within other assets and other liabilities.

			Hedging		Amortised	Other	
	MFVTPL (1)	DFV(2) de	erivatives	FVOCI	cost	assets	Total
Assets	£m	£m	£m	£m	£m	£m	£m
Cash and balances at central banks					88,897		88,897
Trading assets	75,119						75,119
Derivatives	131,098		2,251				133,349

Settlement balances Loans to banks - amortised cost (3) Loans to customers - amortised cost Other financial assets Intangible assets Other assets		1,638			46,077	2,928 12,947 305,089 11,770	6,616 9,805	2,928 12,947 305,089 59,485 6,616 9,805
31 December 2018		207,855		2,251	46,077	421,631	16,421	694,235
	Held-for- trading £m	DFV(2) £m	Hedging derivatives £m		Loans and receivables	Held-to- maturity £m	Other assets £m	Total £m
Cash and balances at central banks	2111	2111	2111	2111	98,337	2111	2111	98,337
Trading assets	85,991							85,991
Derivatives	157,876		2,967					160,843
Settlement balances					2,517			2,517
Loans to banks - amortised cost (3)					11,517			11,517
Loans to customers - amortised cost					310,116			310,116
Other financial assets Intangible assets Other assets		190		43,968	3,643	4,128	6,543 10,263	51,929 6,543 10,263
31 December 2017	243,867	190	2,967	43,968	426,130	4,128	16,806	738,056

Notes:

- (1) Mandatory fair value through profit or loss.
- (2) Designated as at fair value through profit or loss.
- (3) Includes items in the course of collection from other banks of £484 million (2017 £1,017 million).

11 Financial instruments - classification continued

	Held-for-		Hedging	Amortised	Other	
	trading	DFV (1)	derivatives	cost	liabilities	
Liabilities	£m	£m	£m	£m	£m	£m
Bank deposits (2)				23,297		23,297
Customer deposits (3)				360,914		360,914
Settlement balances				3,066		3,066
Trading liabilities	72,350					72,350
Derivatives	125,954		2,943			128,897
Other financial liabilities		2,840		36,892		39,732
Subordinated liabilities		867		9,668		10,535
Other liabilities				2,218	6,736	8,954
31 December 2018	198,304	3,707	2,943	436,055	6,736	647,745
Bank deposits (2)				30,396		30,396
Customer deposits (3)				361,316		361,316
Settlement balances				2,844		2,844
Trading liabilities	81,982					81,982
Derivatives	150,935		3,571			154,506
Other financial liabilities		4,277		26,049		30,326
Subordinated liabilities		939		11,783		12,722
Other liabilities				2,181	12,690	14,871
31 December 2017	232,917	5,216	3,571	434,569	12,690	688,963

Notes:

- (1) Designated as at fair value through profit or loss.
- (2) Includes items in the course of transmission to other banks of £125 million (2017 £214 million).
- (3) The carrying amount of other customer accounts designated as at fair value through profit or loss is £26 million (2017 £114 million) higher than the principal amount.

The Group s financial assets and liabilities include:	2018	2017
	£m	£m
Reverse repos		
Loans to banks - amortised cost	3,539	2,152
Loans to customers - amortised cost	9	2,308
Trading assets	24,759	36,272

Repos

Bank deposits		941	3,839
Customer deposits		3,774	6,669
Trading liabilities		25,645	28,363
	0040	0047	0010
	2018	2017	2016
Amounts included in operating profit/(loss) before tax:	£m	£m	£m
(Losses)/Gains on financial assets/liabilities designated as at fair value			
through profit or loss	(26)	60	(13)

The tables below present information on financial assets and financial liabilities that are offset on the balance sheet under IFRS or subject to enforceable master netting agreements together with financial collateral received or given.

	Instruments	which can be offset Potential for offset not recognised by IFRS							
				Effect of master			Net amount after the effect of	Instruments	
				netting		Other	netting arrangements	outside	
		IFRS	Balance	and similar	Cash	financial	and related	netting	Balance
	Gross	offset	sheet	agreements	collateral	collateral	collateral	•	
2018	£m	£m	£m	£m	£m	£m	£m	£m	£m
Derivative assets	136,329	(5,041)	131,288	(106,762)	(17,937)	(4,469)	2,120	2,061	133,349
Derivative liabilities	133,965	(6,776)	127,189	(106,762)	(15,227)	(3,466)	1,734	1,708	128,897
Net position (1)	2,364	1,735	4,099		(2,710)	(1,003)	386	353	4,452
Trading reverse repos	53,148	(31,376)	21,772	(762)		(21,000)	10	2,987	24,759
Trading repos	55,864	(31,376)	24,488	(762)		(23,726)		1,157	25,645
Net position	(2,716)		(2,716)			2,726	10	1,830	(886)
2017									
Derivative assets	175,670	(17,088)	158,582	(128, 287)	(20,311)	(5,850)	4,134	2,261	160,843
Derivative liabilities	170,405	(17,557)	152,848	(128,287)	(18,035)	(3,952)	2,574	1,658	154,506
Net position (1)	5,265	469	5,734		(2,276)	(1,898)	1,560	603	6,337
Trading reverse repos	65,508	(32,639)	32,869	(329)		(32,498)	42	3,403	36,272
Trading repos	58,695	(32,639)	26,056	(329)		(25,727)		2,307	28,363
Net position	6,813		6,813			(6,771)	42	1,096	7,909

Note:

⁽¹⁾ The net IFRS offset balance of £1,735 million (2017 - £469 million) relates to variation margin netting reflected on other balance sheet lines.

12 Financial instruments - valuation

Critical accounting policy: Fair value - financial instruments

In accordance with Accounting policies 13 and 21, financial instruments classified as mandatory fair value through profit or loss, held-for-trading or designated as at fair value through profit or loss and financial assets classified as fair value through other comprehensive income are recognised in the financial statements at fair value. All derivatives are measured at fair value.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value measurement takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. It also uses the assumptions that market participants would use when pricing the asset or liability. In determining fair value the Group maximises the use of relevant observable inputs and minimises the use of unobservable inputs.

Modelled approaches may be used to measure instruments classed as Level 2 or 3. Estimation expertise is required in the selection, implementation and calibration of appropriate models. The resulting modelled valuations are considered for accuracy and reliability. Portfolio level adjustments consistent with IFRS 13 are raised to incorporate counterparty credit risk, funding and margining risks. Expert judgement is used in the initial measurement of modelled products by control teams.

Where the Group manages a group of financial assets and financial liabilities on the basis of its net exposure to either market risks or credit risk, it measures the fair value of a group of financial assets and financial liabilities on the basis of the price that it would receive to sell a net long position (i.e. an asset) for a particular risk exposure or to transfer a net short position (i.e. a liability) for a particular risk exposure in an orderly transaction at the measurement date under current market conditions. Credit valuation adjustments are made when valuing derivative financial assets to incorporate counterparty credit risk. Adjustments are also made when valuing financial liabilities measured at fair value to reflect the Group s own credit standing.

Where the market for a financial instrument is not active, fair value is established using a valuation technique. These valuation techniques involve a degree of estimation, the extent of which depends on the instrument s complexity and the availability of market-based data. Further details about the valuation methodologies and the sensitivity to reasonably possible alternative assumptions of the fair value of financial instruments valued using techniques where at least one significant input is unobservable are given below.

	2018			2017	
Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
£m	£m	£m	£m	£m	£m

Assets

Trading assets

Loans		44,983	120		58,331	150
Securities	22,003	7,312	701	19,648	7,009	853
Derivatives		131,513	1,836	10	159,109	1,724
Other financial assets						
Loans		768	136			56
Securities	40,132	6,172	507	37,147	6,450	505
Total financial assets held at fair value	62,135	190,748	3,300	56,805	230,899	3,288
Liabilities						
Trading liabilities						
Deposits		47,243	377		52,109	239
Debt securities in issue		791	112		1,057	50
Short positions	18,941	4,886		23,715	4,796	16
Derivatives		127,709	1,188	2	152,886	1,618
Other financial liabilities						
Debt securities in issue		2,348	280		3,141	262
Other deposits		212			874	
Subordinated liabilities		867			939	
Total financial liabilities held at fair value	18,941	184,056	1,957	23,717	215,802	2,185

Notes:

- (1) Transfers between levels are deemed to have occurred at the beginning of the quarter in which the instruments were transferred.
- (2) For an analysis of debt securities, by issuer, measurement classification and analysis of asset backed securities, and derivatives, by type and contract, refer to Capital and Risk management Credit risk.
- (3) The determination of an instrument s level cannot be made at a global product level as a single product type can be in more than one level. For example, a single name corporate credit default swap could be in level 2 or level 3 depending on whether the reference counterparty s obligations are liquid or illiquid.

12 Financial instruments - valuation continued

Fair value hierarchy

Financial Instruments carried at fair value have been classified under the IFRS fair value hierarchy as follows.

Level 1 Instruments valued using unadjusted quoted prices in active and liquid markets, for identical financial instruments. Examples include government bonds, listed equity shares and certain exchange-traded derivatives.

Level 2 - instruments valued using valuation techniques that have observable inputs., Examples include most government agency securities, investment-grade corporate bonds, certain mortgage products, including CLOs, most bank loans, repos and reverse repos, less liquid listed equities, state and municipal obligations, most notes issued, and certain money market securities and loan commitments and most OTC derivatives.

Level 3 - instruments valued using a valuation technique where at least one input which could have a significant effect on the instrument solution, is not based on observable market data. Examples include cash instruments which trade infrequently, certain syndicated and commercial mortgage loans, certain emerging markets and derivatives with unobservable model inputs.

Valuation techniques

RBS derives fair value of its instruments differently depending on whether the instrument is a non-modelled or a modelled product.

Non-modelled products are valued directly from a price input typically on a position by position basis and include cash, equities and most debt securities.

Modelled products valued using a pricing model range in complexity from comparatively vanilla products such as interest rate swaps and options (e.g. interest rate caps and floors) through to more complex derivatives. The valuation of modelled products requires an appropriate model and inputs into this model. Sometimes models are also used to derive inputs (e.g. to construct volatility surfaces). RBS uses a number of modelling methodologies.

Inputs to valuation models

Values between and beyond available data points are obtained by interpolation and extrapolation. When utilising valuation techniques, the fair value can be significantly affected by the choice of valuation model and by underlying assumptions concerning factors such as the amounts and timing of

cash flows, discount rates and credit risk. The principal inputs to these valuation techniques are as follows:

Bond prices - quoted prices are generally available for government bonds, certain corporate securities and some mortgage-related products.

Credit spreads - where available, these are derived from prices of credit default swaps or other credit based instruments, such as debt securities. For others, credit spreads are obtained from third-party benchmarking services. For counterparty credit spreads, adjustments are made to market prices (or parameters) when the creditworthiness of the counterparty differs from that of the assumed counterparty in the market price (or parameters).

Interest rates - these are principally benchmark interest rates such as the London Interbank Offered Rate (LIBOR), Overnight Index Swaps (OIS) rate and other quoted interest rates in the swap, bond and futures markets.

Foreign currency exchange rates - there are observable prices both for spot and forward contracts and futures in the world s major currencies.

Equity and equity index prices - quoted prices are generally readily available for equity shares listed on the world s major stock exchanges and for major indices on such shares.

Commodity prices - many commodities are actively traded in spot and forward contracts and futures on exchanges in London, New York and other commercial centres.

Price volatilities and correlations - volatility is a measure of the tendency of a price to change with time.

Correlation measures the degree which two or more prices or other variables are observed to move together.

Prepayment rates - the fair value of a financial instrument that can be prepaid by the issuer or borrower differs from that of an instrument that cannot be prepaid. In valuing prepayable instruments that are not quoted in active markets, RBS considers the value of the prepayment option.

Recovery rates/loss given default - these are used as an input to valuation models and reserves for asset-backed securities and other credit products as an indicator of severity of losses on default. Recovery rates are primarily sourced from market data providers or inferred from observable credit spreads.

Valuation control

RBS s control environment for the determination of the fair value of financial instruments includes formalised protocols for the review and validation of fair values independent of the businesses entering into the transactions.

Independent price verification (IPV) is a key element of the control environment. Valuations are first performed by the business which entered into the transaction. Such valuations may be directly from available prices, or may be derived using a model and variable model inputs. These valuations are reviewed, and if necessary amended, by a team independent of those trading the financial instruments, in the light of available pricing evidence.

Where measurement differences are identified through the IPV process these are grouped by fair value level and quality of data. If the size of the difference exceeds defined thresholds adjustment to independent levels are made.

IPV takes place at least each monthly, for all fair value positions. The IPV control includes formalised reporting and escalation of any valuation differences in breach of established thresholds.

The Modelled Product Review Committee sets the policy for model documentation, testing and review, and prioritises models with significant exposure being reviewed by the RBS Model Risk team. Valuation Committees are made up of valuation specialists and senior business representatives from various functions and oversees pricing, reserving and valuations issues. These committees meet monthly to review and ratify any methodology changes. The Executive Valuation Committee meets quarterly to address key material and subjective valuation issues, to review items escalated by Valuation Committees and to discuss other relevant matters of including prudential valuation.

Initial classification of a financial instrument is carried out by the Product Control team following the principles in IFRS 13. They base their judgment on information gathered during the IPV process for instruments which include the sourcing of independent prices and model inputs. The quality and completeness of the information gathered in the IPV process gives an indication as to the liquidity and valuation uncertainty of an instrument. These initial classifications are subject to senior management review. Particular attention is paid to instruments crossing from one level to another, new instrument classes or products, instruments that are generating significant profit and loss and instruments where valuation uncertainty is high.

RBS uses consensus prices for the IPV of some instruments. The consensus service encompasses the equity, interest rate, currency, commodity, credit, property, fund and bond markets, providing comprehensive matrices of vanilla prices and a wide selection of exotic products.

12 Financial instruments - valuation continued

RBS contributes to consensus pricing services where there is a significant interest either from a positional point of view or to test models for future business use. Data sourced from consensus pricing services are used for a combination of control processes including direct price testing, evidence of observability and model testing. In practice this means that RBS submits prices for all material positions for which a service is available. Data from consensus services are subject to the same level of quality review as other inputs used for IPV process.

In order to determine a reliable fair value, where appropriate, management applies valuation adjustments to the pricing information gathered from the above sources. The sources of independent data are reviewed for quality and are applied in the IPV processes using a formalised input quality hierarchy. These adjustments reflect RBS s assessment of factors that market participants would consider in setting a price.

Where unobservable inputs are used, RBS may determine a range of possible valuations derived from differing stress scenarios to determine the sensitivity associated with the valuation. When establishing the fair value of a financial instrument using a valuation technique, RBS considers adjustments to the modelled price which market participants would make when pricing that instrument. Such adjustments include the credit quality of the counterparty and adjustments to compensate for model limitations.

When valuing financial instruments in the trading book, adjustments are made to mid-market valuations to cover bid-offer spread, funding and credit risk. These adjustments are presented in the table below:

	2018	2017
Adjustment	£m	£m
Funding FVA	250	440
Credit CVA	419	346
Bid Offer	238	285
Product and deal specific	327	1,033
	1,234	2,104

The reduction in valuation reserves was primarily driven by a combination of trade close-out activity and a reallocation of product and deal specific reserves that are now included within the discount rate applied to the derivative cash flows. There was a net increase in CVA due to the extension of the CVA reserve to include margin period of risk on collateralised counterparties and a reclassification of product and deal specific reserves to CVA.

Funding valuation adjustment (FVA)

FVA represents an estimate of the adjustment that a market participant would make to incorporate funding costs and benefits that arise in relation to derivative exposures. FVA is calculated as a portfolio level adjustment.

Funding levels are applied to estimated potential future exposures. For uncollateralised derivatives, the modelling of the exposure is consistent with the approach used in the calculation of CVA, and the counterparty contingent nature of the exposure is reflected in the calculation. For collateralised derivatives, the exposure reflects initial margin posting requirements.

Credit valuation adjustments (CVA)

CVA represents an estimate of the adjustment to fair value that a market participant would make to incorporate the counterparty credit risk inherent in derivative exposures. CVA is actively managed by a credit and market risk hedging process, and therefore movements in CVA are partially offset by trading revenue on the hedges.

The CVA is calculated on a portfolio basis reflecting an estimate of the amount a third party would charge to assume the credit risk.

Collateral held under a credit support agreement is factored into the CVA calculation. In such cases where RBS holds collateral against counterparty exposures, CVA is held to the extent that residual risk remains.

Bid-offer

Fair value positions are adjusted to bid (long positions) or offer (short positions) levels, by marking individual cash positions directly to bid or offer or by taking bid-offer reserves calculated on a portfolio basis for derivatives exposures. The bid-offer approach is based on current market spreads and standard market bucketing of risk.

Bid-offer spreads vary by maturity and risk type to reflect different spreads in the market. For positions where there is no observable quote, the bid-offer spreads are widened in comparison to proxies to reflect reduced liquidity or observability. Bid-offer methodologies may also incorporate liquidity triggers whereby wider spreads are applied to risks above pre-defined thresholds.

As permitted by IFRS 13, netting is applied on a portfolio basis to reflect the value at which RBS believes it could exit the portfolio, rather than the sum of exit costs for each of the portfolio s individual trades. This is applied where the asset and liability positions are managed as a portfolio for risk and reporting purposes.

The discount rates applied to derivative cash flows in determining fair value reflect any underlying collateral agreements. Collateralised derivatives are generally discounted at the relevant OIS-related rates at an individual trade level. Reserves are held to the extent that the discount rates applied do not reflect all of the terms of the collateral agreements.

Product and deal specific

On initial recognition of financial assets and liabilities valued using valuation techniques incorporating information other than observable market data, any difference between the transaction price and that derived from the valuation technique is deferred. Such amounts are recognised in profit or loss over the life of the transaction; when market data becomes observable; or when the transaction matures or is closed out as appropriate. At 31 December 2018, net gains of £59 million (2017 - £56 million) were carried forward. During the year, net gains of £151 million (2017 - £64 million) were deferred and £148 million (2017 - £80 million) were recognised in the income statement.

Where system generated valuations do not accurately recover market prices, manuals valuation adjustments are applied either at a position or portfolio level. Manual adjustments are subject to the scrutiny of independent control teams and are subject to monthly review by senior management.

12 Financial instruments valuation: Level 3 ranges of unobservable inputs

				2018		2017	
		Unobservable					
Financial instrument	Valuation Technique	inputs	Units	Low	High	Low	High
Trading assets and Other fina	ancial assets						
Loans	Price-based	Price	%	0	132	0	101
Debt securities	Price-based	Price	GBP	0	154	0	370
Equity Shares	Price-based	Price	GBP	0	24,181	0	585,066
	Valuation	Discount factor	%	8	11	9	13
	Valuation	Fund NAV	%	80	120	80	120
Trading liabilities and Other f	inancial liabilities						
Customer accounts	DCF based on	Correlation	%	(45)	99	(29)	86
	recoveries						
		Interest rate	%	(0.36)	1.74	(0.38)	2.61
Debt securities in	Price-based	Price	CCY	21 JPY	136 EUR	56 JPY	149 EUR
issue							
	Valuation	Fund NAV	GBP	0	622	0	977
Derivative assets and liabilitie							
Credit derivatives	DCF based on	Credit spreads	bps	18	500	0	500
	recoveries						
	Option pricing	Correlation	%	(50)	80	(50)	80
		Volatility	%	47	80	38	80
		Upfront points	%	0	100	0	99
		Recovery rate	%	10	40	10	40
	Price-based	Price	%	90	110		
Interest rate & FX	Option pricing	Correlation	%	(45)	99	(75)	100
derivatives		Volatility	%	1	76	0	292
Equity derivatives	Option pricing	Correlation	%	(57)	92	(57)	95
		Forward	Points	864	7,106	146	189
		Volatility	%	1	49	7	11

Notes:

⁽¹⁾ The table above presents the range of values for significant inputs used in the valuation of level 3 assets and liabilities. The range represents the highest and lowest values of the input parameters and therefore is not a measure of parameter uncertainty. Movements in the underlying input may have a favourable or unfavourable impact on the valuation depending on the particular terms of the contract and the exposure. For example, an increase in the credit spread of a bond would be favourable for the issuer but unfavourable for the note holder. Whilst RBS indicates where it considers that there are significant relationships between the inputs, their inter-relationships will be affected by macro economic factors including interest rates, foreign exchange rates or equity index levels.

⁽²⁾ Credit spreads and discount margins: credit spreads and margins express the return required over a benchmark rate or index to compensate for the credit risk associated with a cash instrument. A higher credit spread would indicate that the underlying instrument has more credit risk associated with it. Consequently, investors require a higher yield to compensate for the higher risk.

⁽³⁾ Price and yield: There may be a range of prices used to value an instrument that may be a direct comparison of one instrument or portfolio with another or, movements in a more liquid instrument may be used to indicate the movement in the value of a less liquid instrument. The comparison may also be indirect in that adjustments are made to the price to reflect differences between the pricing source and the instrument

being valued.

- (4) Recovery rate: reflects market expectations about the return of principal for a debt instrument or other obligations after a credit event or on liquidation. Recovery rates tend to move conversely to credit spreads.
- (5) Valuation: for private equity investments, values may be estimated by looking at past prices of similar stocks and from valuation statements where valuations are usually derived from earnings measures such as EBITDA or net asset value (NAV). Similarly for equity or bond fund investments, prices may be estimated from valuation or credit statements using NAV or similar measures.
- (6) Correlation: measures the degree by which two prices or other variables are observed to move together. If they move in the same direction there is positive correlation; if they move in opposite directions there is negative correlation. Correlations typically include relationships between: default probabilities of assets in a basket (a group of separate assets), exchange rates, interest rates and other financial variables.
- (7) Volatility: a measure of the tendency of a price to change with time.
- (8) Interest rate delta: these ranges represent the low/high marks on the relevant discounting curve.
- (9) Upfront points: where CDS contracts are standardised, the inherent spread of the trade may exceed the standard premium paid or received under the contract. Upfront points will compensate for the difference between the standard premium and the actual premium at the start of the contract.
- (10) RBS does not have any material liabilities measured at fair value that are issued with an inseparable third party credit enhancement.

12 Financial instruments valuation: areas of judgment

Whilst the business has simplified, the diverse range of products historically traded by RBS results in a wide range of instruments that are classified into Level 3 of the hierarchy. Whilst the majority of these instruments naturally fall into a particular level, for some products an element of judgment is required. The majority of RBS financial instruments carried at fair value are classified as Level 2. IFRS requires extra disclosures in respect of level 3 instruments.

Active and inactive markets

A key input in the decision making process for the allocation of assets to a particular level is market activity. In general, the degree of valuation uncertainty depends on the degree of liquidity of an input.

Where markets are liquid, little judgment is required. However, when the information regarding the liquidity in a particular market is not clear, a judgment may need to be made. This can be more difficult as assessing the liquidity of a market is not always straightforward. For an equity traded on an exchange, daily volumes of trading can be seen, but for an over-the-counter (OTC) derivative assessing the liquidity of the market with no central exchange is more difficult.

A key related matter is where a market moves from liquid to illiquid or vice versa. Where this change is considered to be temporary, the classification is not changed. For example, if there is little market trading in a product on a reporting date but at the previous reporting date and during the intervening period the market has been considered to be liquid, the instrument will continue to be classified in the same level in the hierarchy. This is to provide consistency so that transfers between levels are driven by genuine changes in market liquidity and do not reflect short term or seasonal effects. Material movements between levels are reviewed quarterly.

The breadth and depth of the IPV data allows for a rules based quality assessment to be made of market activity, liquidity and pricing uncertainty, which assists with the process of allocation to an appropriate level. Where suitable independent pricing information is not readily available, the quality assessment will result in the instrument being assessed as Level 3.

Modelled products

For modelled products the market convention is to quote these trades through the model inputs or parameters as opposed to a cash price equivalent. A mark-to-market is derived from the use of the independent market inputs calculated using RBS s model.

The decision to classify a modelled instrument as Level 2 or 3 will be dependent upon the product/model combination, the currency, the maturity, the observability and quality of input parameters and other factors. All these must be assessed to classify the asset. If an input fails the observability or quality tests then the instrument is considered to be in Level 3 unless the input can be shown to have an insignificant effect on the overall

valuation of the product.

The majority of derivative instruments for example vanilla interest rate swaps, foreign exchange swaps and liquid single name credit derivatives are classified as Level 2 as they are vanilla products valued using observable inputs. The valuation uncertainty on these is considered to be low and both input and output testing may be available.

Non-modelled products

Non-modelled products are generally quoted on a price basis and can therefore be considered for each of the three levels. This is determined by the market activity, liquidity and valuation uncertainty of the instruments which is in turn measured from the availability of independent data used by the IPV process to allocate positions to IPV quality levels.

The availability and quality of independent pricing information are considered during the classification process. An assessment is made regarding the quality of the independent information. For example, where consensus prices are used for non-modelled products, a key assessment of the quality of a price is the depth of the number of prices used to provide the consensus price. If the depth of contributors falls below a set hurdle rate, the instrument is considered to be Level 3. This hurdle rate is that used in the IPV process to determine the IPV quality rating. However, where an instrument is generally considered to be illiquid, but regular quotes from market participants exist, these instruments may be classified as Level 2 depending on frequency of quotes, other available pricing and whether the quotes are used as part of the IPV process or not.

For some instruments with a wide number of available price sources, there may be differing quality of available information and there may be a wide range of prices from different sources. In these situations the highest quality source is used to determine the classification of the asset. For example, a tradable quote would be considered a better source than a consensus price.

		2018		2017			
	Level 3	Favourable	Unfavourable	Level 3	Favourable	Unfavourable	
	£m	£m	£m	£m	£m	£m	
Assets							
Trading assets							
Loans	120	10	(10)	150			
Securities	701	20	(10)	853	30	(10)	
Derivatives			, ,			, ,	
Interest rate	1,487	120	(120)	1,340	140	(140)	
Foreign exchange	130	10	`(10)	148	10	(10)	
Other	219	10	(20)	236	10	(20)	
Other financial assets			, ,			,	
Loans	136	10	(20)	56			
Securities	507	50	(30)	505	20	(30)	
	3,300	230	(220)	3,288	210	(210)	
Liabilities							
Trading liabilities							
Deposits	377	40	(40)	239	20	(20)	
Debt securities in issue	112	10	(10)	50			
Short positions				16			
Derivatives							
Interest rate	808	70	(70)	1,104	120	(120)	
Foreign exchange	279	10	(10)	358	10	(10)	
Other	101		(10)	156	10	(10)	
Other financial liabilities							
Debt securities in issue	280	10	(10)	262	10	(10)	
	1,957	140	(150)	2,185	170	(170)	

12 Financial instruments valuation: level 3 sensitivities

The Level 3 sensitivities presented above are calculated at a trade or low level portfolio basis. They are not calculated on an overall portfolio basis and therefore do not reflect the likely potential uncertainty on the portfolio as a whole. The figures are aggregated and do not reflect the correlated nature of some of the sensitivities. In particular, for some of the portfolios the sensitivities may be negatively correlated where a downwards movement in one asset would produce an upwards movement in another, but due to the additive presentation of the above figures this correlation cannot be displayed. The actual potential downside sensitivity of the total portfolio may be less than the non-correlated sum of the additive figures as shown in the above table.

Reasonably plausible alternative assumptions of unobservable inputs are determined based on a specified target level of certainty of 90%. The assessments recognise different favourable and unfavourable valuation movements where appropriate. Each unobservable input within a product is considered separately and sensitivity is reported on an additive basis.

Alternative assumptions are determined with reference to all available evidence including consideration of the following: quality of independent pricing information taking into account consistency between different sources, variation over time, perceived tradability or otherwise of available quotes; consensus service dispersion ranges; volume of trading activity and market bias (e.g. one-way inventory); day 1 profit or loss arising on new trades; number and nature of market participants; market conditions; modelling consistency in the market; size and nature of risk; length of holding of position; and market intelligence.

Other considerations

Whilst certain inputs used to calculate CVA, FVA and own credit adjustments are not based on observable market data, the uncertainty of the inputs is not considered to have a significant effect on the net valuation of the related derivative portfolios and issued debt. The classification of the derivative portfolios and issued debt is not determined by the observability of these inputs and any related sensitivity does not form part of the Level 3 sensitivities presented.

Level 3

The following table shows the movement in level 3 assets and liabilities in the year.

	2018 Other				2017 Other	,	
Trading assets	financial	Total	Total	Trading assets	financial	Total	Total
(3) £m	assets (4) £m	assets £m	liabilities £m	(3) £m	assets (4)	assets £m	liabilities £m

At 1 January (1)	2,692	530	3,222	2,187	3,933	604	4,537	2,997
Amounts recorded in the income statement (2)	(147)	178	31	(344)	(593)	21	(572)	(341)
Amounts recorded in the statement of comprehensive income		23	23			2	2	
Level 3 transfers in	1,307	19	1,326	419	679	315	994	530
Level 3 transfers out	(624)	(1)	(625)	(231)	(1,015)	(3)	(1,018)	(672)
Issuances				47	371		371	
Purchases	871	16	887	401	1,788	20	1,808	412
Settlements	(512)	(3)	(515)	(204)	(161)		(161)	(423)
Sales	(930)	(125)	(1,055)	(316)	(2,286)	(369)	(2,655)	(323)
Foreign exchange and other adjustments		6	6	(2)	11	(29)	(18)	5
At 31 December	2,657	643	3,300	1,957	2,727	561	3,288	2,185
Amounts recorded in the income statement in respect of								
balances held at year end								
- unrealised	(134)	158	24	(330)	(59)	(21)	(80)	595
- realised	(2)	6	4		271	5	276	(100)

Notes:

- (1) Refer to Note 33 for further information on the impact of IFRS9 on classification and basis of preparation, year ended 31 December 2018 prepared under IFRS9 and prior years under IAS39.
- (2) There were £185 million net losses on trading assets and liabilities (2017 £240 million HFT) recorded in income from trading activities. Net losses on other instruments of £190 million (2017 £9 million gains) were recorded in other operating income and interest income as appropriate.
- (3) Trading assets comprise assets held at fair value in trading portfolios.
- (4) Other financial assets comprise fair value through other comprehensive income (2017 available-for-sale), designated at fair value through profit or loss and other fair value through profit or loss.

12 Financial instruments: fair value of financial instruments not carried at fair value

The following table shows the carrying value and fair value of financial instruments carried at amortised cost on the balance sheet.

2018 Financial assets	Items where fair value approximates carrying value £bn	Carrying value £bn	Fair value £bn	Level 1 £bn	Fair value hierarchy level Level 2 £bn	Level 3 £bn
Cash and balances at central banks Settlement balances	88.9 2.9					
Loans to banks Loans to customers	0.5	12.4 305.1	12.4 301.7		9.2 0.5	3.2 301.2
Other financial assets Securities		11.8	11.8	7.3	3.0	1.5
Financial liabilities	4.0	40.4	40.5		40.0	4.0
Bank deposits Customer deposits Settlement balances Other financial liabilities	4.2 307.1 3.1	19.1 53.8	18.5 54.6		13.9 10.4	4.6 44.2
Debt securities in issue		36.9	38.6		36.9	1.7
Subordinated liabilities Other liabilities - notes in circulation	2.2	9.7	10.0		9.9	0.1
2017 Financial assets	00.0					
Cash and balances at central banks Settlement balances	98.3 2.5					
Loans to banks Loans to customers	1.0	10.5 310.1	10.5 306.8		9.1 1.3	1.4 305.5
Other financial assets Securities		7.8	7.9	4.3	1.5	2.1
Financial liabilities						
Bank deposits Customer deposits Settlement balances	4.5 321.5 2.8	25.9 39.8	26.0 39.9		22.4 12.9	3.6 27.0
Other financial liabilities Debt securities in issue Subordinated liabilities		26.0 11.8	27.3 12.6		22.2 12.5	5.1 0.1
Other liabilities - notes in circulation	2.2					

12 Financial instruments: fair value of financial instruments not carried at fair value continued

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Quoted market values are used where available; otherwise, fair values have been estimated based on discounted expected future cash flows and other valuation techniques. These techniques involve uncertainties and require assumptions and judgments covering prepayments, credit risk and discount rates. Furthermore there is a wide range of potential valuation techniques. Changes in these assumptions would significantly affect estimated fair values. The fair values reported would not necessarily be realised in an immediate sale or settlement.

The assumptions and methodologies underlying the calculation of fair values of financial instruments at the balance sheet date are as follows:

Short-term financial instruments

For certain short-term financial instruments: cash and balances at central banks, items in the course of collection from other banks, settlement balances, items in the course of transmission to other banks, customer demand deposits and notes in circulation, carrying value is a reasonable approximation of fair value.

Loans to banks and customers

In estimating the fair value of net loans to customers and banks measured at amortised cost, RBS s loans are segregated into appropriate portfolios reflecting the characteristics of the constituent loans. Two principal methods are used to estimate fair value:

- (a) Contractual cash flows are discounted using a market discount rate that incorporates the current spread for the borrower or where this is not observable, the spread for borrowers of a similar credit standing. This method is used for portfolios where counterparties have external ratings: institutional and corporate lending in NatWest Markets.
- (b) Expected cash flows (unadjusted for credit losses) are discounted at the current offer rate for the same or similar products. This approach is adopted for lending portfolios in UK PB, Ulster Bank Rol, Commercial Banking (SME loans) and Private Banking in order to reflect the homogeneous nature of these portfolios.

For certain portfolios where there are very few or no recent transactions, a bespoke approach is used.

Debt securities

The majority of debt securities are valued using quoted prices in active markets, or using quoted prices for similar assets in active markets. Fair values of the rest are determined using discounted cash flow valuation techniques.

Deposits by banks and customer accounts

Fair values of deposits are estimated using discounted cash flow valuation techniques.

Debt securities in issue and subordinated liabilities

Fair values are determined using quoted prices for similar liabilities where available or by reference to valuation techniques, adjusting for own credit spreads where appropriate.

13 Financial instruments - maturity analysis

Remaining maturity

The following table shows the residual maturity of financial instruments, based on contractual date of maturity.

		2018			2017	
	Less than	More than		Less than	More than	
	12 months	12 months	Total	12 months	12 months	Total
	£m	£m	£m	£m	£m	£m
Assets						
Cash and balances at central banks	88,897		88,897	98,337		98,337
Trading assets	49,094	26,025	75,119	66,315	19,676	85,991
Derivatives	28,503	104,846	133,349	32,372	128,471	160,843
Settlement balances	2,928		2,928	2,517		2,517
Loans to banks - amortised cost	12,833	114	12,947	11,424	93	11,517
Loans to customers - amortised cost	67,354	237,735	305,089	69,832	240,284	310,116
Other financial assets	11,681	47,804	59,485	8,776	43,153	51,929
Liabilities						
Bank deposits	7,438	15,859	23,297	10,813	19,583	30,396
Customer deposits	359,148	1,766	360,914	358,857	2,459	361,316
Settlement balances	3,066		3,066	2,844		2,844
Trading liabilities	50,668	21,682	72,350	53,787	28,195	81,982
Derivatives	29,028	99,869	128,897	32,212	122,294	154,506
Other financial liabilities	8,240	31,492	39,732	8,467	21,859	30,326
Subordinated liabilities	299	10,236	10,535	2,383	10,339	12,722

13 Financial instruments maturity analysis continued

Assets and liabilities by contractual cash flow maturity

The tables below show the contractual undiscounted cash flows receivable and payable, up to a period of 20 years, including future receipts and payments of interest of financial assets and liabilities by contractual maturity. The balances in the following tables do not agree directly with the consolidated balance sheet, as the tables include all cash flows relating to principal and future coupon payments, presented on an undiscounted basis. The tables have been prepared on the following basis:

Financial assets have been reflected in the time band of the latest date on which they could be repaid, unless earlier repayment can be demanded by RBS. Financial liabilities are included at the earliest date on which the counterparty can require repayment, regardless of whether or not such early repayment results in a penalty. If the repayment of a financial instrument is triggered by, or is subject to, specific criteria such as market price hurdles being reached, the asset is included in the time band that contains the latest date on which it can be repaid, regardless of early repayment.

The liability is included in the time band that contains the earliest possible date on which the conditions could be fulfilled, without considering the probability of the conditions being met.

For example, if a structured note is automatically prepaid when an equity index exceeds a certain level, the cash outflow will be included in the less than three months period, whatever the level of the index at the year end. The settlement date of debt securities in issue, issued by certain securitisation vehicles consolidated by RBS, depends on when cash flows are received from the securitised assets. Where these assets are prepayable, the timing of the cash outflow relating to securities assumes that each asset will be prepaid at the earliest possible date. As the repayments of assets and liabilities are linked, the repayment of assets in securitisations is shown on the earliest date that the asset can be prepaid, as this is the basis used for liabilities.

The principal amounts of financial assets and liabilities that are repayable after 20 years or where the counterparty has no right to repayment of the principal are excluded from the table, as are interest payments after 20 years.

MFVTPL assets of £207.9 billion (2017 - £243.9 billion) and HFT liabilities of £198.3 billion (2017 - £232.9 billion) have been excluded from the following tables.

	0-3 months	3-12 months	1-3 years	3-5 years	5-10 years	10-20 years
2018	£m	£m	£m	£m	£m	£m
Assets by contractual maturity						
Cash and balances at central banks	88,897					
Settlement balances	2,928					

Loans to banks - amortised cost	11,920	925	106			
Other financial assets (1)	4,451	7,397	14,138	11,279	11,826	2,744
Total maturing assets	108,196	8,322	14,244	11,279	11,826	2,744
Loans to customers - amortised cost	43,096	32,087	66,441	51,839	66,978	79,543
Derivatives held for hedging	224	529	995	345	152	130
	151,516	40,938	81,680	63,463	78,956	82,417
Liabilities by contractual maturity						
Bank deposits	7,417	21	13,785	2,003		59
Settlement balance	3,066					
Other financial liabilities	1,736	7,226	10,724	11,658	9,316	2,029
Subordinated liabilities	131	637	1,476	7,532	1,737	1,422
Other liabilities (2)	2,152					
Total maturing liabilities	14,502	7,884	25,985	21,193	11,053	3,510
Customer deposits	351,054	8,114	1,727	14	6	26
Derivatives held for hedging	181	306	1,062	416	637	531
	365,737	16,304	28,774	21,623	11,696	4,067
Guarantees and commitments notional amount						
Guarantees (3)	3,952					

Guarantees (3) 116,843 Commitments (4) 120,795

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

13 Financial instruments maturity analysis continued

	0-3					
	months	3-12 months	1-3 years	3-5 years	5-10 years	10-20 years
2017	£m	£m	£m	£m	£m	£m
Assets by contractual maturity						
Cash and balances at central banks	98,337					
Settlement balances	2,517					
Loans to banks - amortised cost	10,792	633	94			
Other financial assets (1)	3,675	5,889	11,960	11,312	12,813	3,638
Total maturing assets	115,321	6,522	12,054	11,312	12,813	3,638
Loans to customers - amortised cost	45,898	32,031	65,077	52,016	68,500	81,995
Derivatives held for hedging	281	832	1,336	334	166	111
	161,500	39,385	78,467	63,662	81,479	85,744
Liabilities by contractual maturity						
Bank deposits	9,180	1,740	3,614	16,023	61	71
Settlement balances	2,844					
Other financial liabilities	4,360	4,777	10,640	3,731	9,762	49
Subordinated liabilities	87	2,645	1,515	1,620	7,746	2,582
Other liabilities (2)	2,186					
Total maturing liabilities	18,657	9,162	15,769	21,374	17,569	2,702
Customer deposits	356,340	3,843	1,052	77	20	28
Derivatives held for hedging	212	289	1,188	526	813	738
	375,209	13,294	18,009	21,977	18,402	3,468
Guarantees and commitments notional amount						
Guarantees (3)	7,718					
Commitments (4)	121,229 128,947					
	120,347					

Notes:

(3)

(4)

(1) Other financial assets excludes equity shares.

(2) Other liabilities include notes in circulation.

RBS is only called upon to satisfy a guarantee when the guaranteed party fails to meet its

obligations. RBS expects most guarantees it provides to expire unused.

RBS has given commitments to provide funds to customers under undrawn formal facilities, credit lines and other commitments to lend subject to certain conditions being met by the counterparty. RBS does not expect all facilities to be drawn, and some may lapse before drawdown.

14 Loan impairment provisions

Loan exposure and impairment metrics

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

	31 December 2018 (1)	1 January 3 2018 (1)	1 December 2017
	£m	£m	£m
Loans - amortised cost			
Stage 1	285,985	333,929	
Stage 2	26,097	26,972	
Stage 3	7,718	11,283	
	319,800	372,184	321,633
ECL provisions (2)			
- Stage 1	285	261	
- Stage 2	763	621	
- Stage 3	2,320	3,565	
	3,368	4,447	3,814
ECL provision coverage (3)			
- Stage 1 %	0.10	0.1	
- Stage 2 %	2.92	2.3	
- Stage 3 %	30.06	31.6	
·	1.05	1.2	1.20
Impairment losses			
ECL charge (4)	398		530
ECL loss rate - annualised (basis points)	12.45		16.48
Amounts written off	1,494		1,210

Notes:

(1) The analysis tables as at 31 December 2018 include all loans within IFRS 9 ECL scope and exclude debt securities. The comparative table at 1 January 2018 includes loans and 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.

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.

ECL provisions coverage is ECL provisions divided by loans - amortised cost.

ECL charge balances in the above table included a $\mathfrak L3$ million charge relating to other financial assets, of which a $\mathfrak L1$ million charge related to assets at FVOCI; and a $\mathfrak L31$ million release related

to contingent liabilities.

(4)

(2)

14 Loan impairment provisions continued

Critical accounting policy: Loan impairment provisions

The Group s 2017 loan impairment provisions were established in accordance with IAS 39 in respect of incurred losses. They comprised individual and collective components as more fully explained in the 2017 Annual Report on Form 20-F. In 2018 the loan impairment provisions have been established in accordance with IFRS 9. Accounting policy 14 sets out how the expected loss approach is applied. At 31 December 2018, customer loan impairment provisions amounted to £3,368 million (2017 - £3,814 million). A loan is impaired when there is objective evidence that the cash flows will not occur in the manner expected when the loan was advanced. Such evidence includes changes in the credit rating of a borrower, the failure to make payments in accordance with the loan agreement; significant reduction in the value of any security; breach of limits or covenants; and observable data about relevant macroeconomic measures.

The impairment loss is the difference between the carrying value of the loan and the present value of estimated future cash flows at the loan soriginal effective interest rate.

The measurement of credit impairment under the IFRS expected loss model depends on management s assessment of any potential deterioration in the creditworthiness of the borrower, its modelling of expected performance and the application of economic forecasts. All three elements require judgments that are potentially significant to the estimate of impairment losses. Further information and sensitivity analyses are on Page 119.

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; and
- 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.

The general approach for the IFRS 9 LGD models has been to leverage the Basel LGD models with bespoke IFRS 9 adjustments to ensure unbiased estimates, i.e. use of effective interest rate as the discount rate and the removal of: downturn calibration, indirect costs, other conservatism and regulatory floors.

For Wholesale, while conversion ratios in the historical data show temporal variations, these cannot (unlike in the case of PD and some LGD models) be sufficiently explained by the CCI measure and are presumed to be driven to a larger extent by exposure management practices. Therefore point-in-time best estimates measures for EAD are derived by estimating the regulatory model specification on a rolling five year window.

Approach for multiple economic scenarios (MES)

The base scenario plays a greater part in the calculation of ECL than the approach to MES.

15 Other financial assets

	Debt securities								
	Central and	d local governi	ment	Other		Equity	Other		
	UK	US	Other	debt	Total	shares	loans	Total	
2018	£m	£m	£m	£m	£m	£m	£m	£m	
Mandatory fair value through profit or loss				669	669	65	904	1,638	
Fair value through other comprehensive									
income	17,192	11,767	11,329	5,306	45,594	483		46,077	
Amortised cost	6,928	264	120	4,458	11,770			11,770	
Total	24,120	12,031	11,449	10,433	58,033	548	904	59,485	
2017									
Designated as at fair value through profit or									
loss						134	56	190	
	17.656	8.461	11.454	6.110	43.681				
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0, . 0 .	,	*		_0,			
	4,128			-,	4,128			4,128	
Total	21,784	8,461	11,454	9,753	51,452	421	56	51,929	
Available-for-sale Loans and receivables Held-to-maturity	*	8,461 8,461	11,454 11,454	6,110 3,643 9,753		287		43,968 3,643 4,128	

Equity shares classified as fair value through other comprehensive income include the following entities and 2018 dividend income received; VISA Inc. £98 million (dividend of £1 million) and Tradeweb Markets LLC £89 million (dividend of £4 million).

16 Intangible assets

	2018			2017			
	Goodwill	Other (1)	Total	Goodwill	Other (1)	Total	
Cost	£m	£m	£m	£m	£m	£m	
At 1 January	18,039	2,259	20,298	17,756	2,095	19,851	
Currency translation and other adjustments	77	9	86	283	(3)	280	
Acquisition of subsidiaries	48	2	50				
Additions		364	364		384	384	
Disposals and write-off of fully amortised assets		(610)	(610)		(217)	(217)	
At 31 December	18,164	2,024	20,188	18,039	2,259	20,298	
Accumulated amortisation and impairment							
At 1 January	12,481	1,274	13,755	12,198	1,173	13,371	
Currency translation and other adjustments	77	5	82	283	(5)	278	
Disposals and write-off of fully amortised assets		(573)	(573)		(145)	(145)	
Charge for the year		271	271		222	222	
Write down of goodwill and other intangible assets		37	37		29	29	
At 31 December	12,558	1,014	13,572	12,481	1,274	13,755	
Net book value at 31 December	5,606	1,010	6,616	5,558	985	6,543	

Note:

(1)

Principally internally generated software.

Intangible assets other than goodwill are reviewed for indicators of impairment. In 2018 £37 million (2017 - £29 million) of previously capitalised software was impaired primarily as a result of software which is no longer expected to yield future economic benefit.

The Group s goodwill acquired in business combinations analysed by reportable segment in Note 4, Segmental analysis. It is reviewed annually at 31 December for impairment. No impairment was indicated at 31 December 2018 or 2017.

Impairment testing involves the comparison of the carrying value of each cash-generating unit (CGU) with its recoverable amount. The carrying values of the segments reflect the equity allocations made by management which are consistent with the Group's capital targets. In 2018, the methodology was enhanced to reflect legal entity changes in the group. Consequently certain corporate assets, represented primarily by bonds and liquidity assets in Treasury are no longer considered to be directly attributable or directly available to the CGUs. These assets are, therefore, not included in the carrying value of the CGUs, resulting in an increase in the available headroom for some CGUs. Recoverable amount is the higher of fair value and value in use. Value in use is the present value of expected future cash flows from the CGU. Fair value is the price that would be received to sell an asset in an orderly transaction between market participants. The recoverable amounts for all CGUs at 31 December 2018 were based on value in use, using management is latest five-year revenue and cost forecasts. The long-term growth rates have been based on expected nominal growth of the CGUs. The pre-tax risk discount rates are based on those observed to be applied to businesses regarded as peers of the CGUs.

Critical accounting policy: Goodwill

Critical estimates

Impairment testing involves a number of judgmental areas: the preparation of cash flow forecasts for periods that are beyond the normal requirements of management reporting; the assessment of discount rates appropriate to each business; estimation of the fair value of the CGUs; and the valuation of separable assets of each business whose goodwill is reviewed.

The sensitivity to the more significant variables in each assessment is presented below.

The table below has not been restated for the re-segmentation which has transferred Business Banking from UK PBB to Commercial Banking. The impact was a transfer of £0.7 billion goodwill from UK PBB to Commercial Banking. This re-segmentation has improved the headroom of Commercial Banking (including Business Banking) by approximatively £4.2 billion and reduced the headroom of UK PBB by the equivalent amount without generating any impairment of the goodwill in the CGUs impacted.

					Consequential impact		Consequential impact		Break
					of 1%			of 5%	
		Assum	otions	Recoverable	adverse mo	vement in	adverse movement		even
				amount					
		Terminal	Pre-tax	exceeded	Discount	Terminal	Forecast	Forecastd	liscount
		growth	discount	carrying					
	Goodwill	rate	rate	value	rate g	growth rate	Income	cost	rate
31 December 2018	£bn	%	%	£bn	£bn	£bn	£bn	£bn	%
UK Personal & Business Banking	3.4	1.8	13.1	14.4	(2.2)	(1.4)	(4.0)	(1.7)	27.7
Commercial & Private Banking	1.9	1.8	13.0	4.5	(1.2)	(8.0)	(2.3)	(1.0)	17.6
RBS International	0.3	1.8	12.9	0.7	(0.2)	(0.2)	(0.4)	(0.1)	18.5
31 December 2017									
UK Personal & Business Banking	3.4	2.0	13.1	9.7	(1.8)	(1.2)	(4.0)	(1.7)	21.6
Commercial & Private Banking	1.9	2.0	12.9	1.3	(1.2)	(0.8)	(2.4)	(1.0)	13.9
RBS International	0.3	2.0	11.0	0.6	(0.4)	(0.3)	(0.4)	(0.1)	12.8

17 Other assets

	2018	2017
	£m	£m
Property, plant and equipment	4,351	4,602
Deferred tax (Note 7)	1,412	1,740
Assets of disposal groups (1)	1,404	195
Prepayments	435	392
Accrued income	317	378
Interests in associates (2)	404	1,410
Pension schemes in net surplus (Note 5)	520	392
Tax recoverable	37	27
Other assets	925	1,127
	9,805	10,263

Notes:

(1)

Includes interest in Alawwal Bank £1,179 million (2017 - nil). Includes interest in Business Growth Fund £387 million (2017 - £316 million). (2)

18 Other financial liabilities

	2018 £m	2017 £m
Customer deposits - designated as at fair value through profit or loss Debt securities in issue	212	874
- designated as at fair value through profit or loss - amortised cost	2,628 36,892	3,403 26,049
Total	39,732	30,326

19 Subordinated liabilities

	2018	2017
	£m	£m
Dated loan capital	8,262	10,394
Undated loan capital	2,127	2,169
Preference shares	146	159
	10,535	12,722

Certain preference shares issued by the company are classified as liabilities; these securities remain subject to the capital maintenance rules of the Companies Act 2006.

19 Subordinated liabilities continued

Redemptions The Royal Bank of Scotland Group plc	Capital treatment £m	2018 £m	2017 £m
US\$350 million 4.70% dated notes 2018	Ineligible	267	
£200 million 7.387% Series 1 non-cumulative convertible £0.01 preference shares (partial redemption) US\$1,000 million 9.118% Series 1 non-cumulative convertible preference shares of US\$0.01	Ineligible		15
(partial redemption)	Ineligible		48
\$156 million 7.65% Series F non-cumulative preference shares (callable)	Ineligible		120
\$242 million 7.25% Series H non-cumulative preference shares (callable) \$751 million 5.75% Series L non cumulative preference shares (callable)	Ineligible		186 577
US\$750 million 6.8% dated notes 2042 (partial redemption)	Ineligible Ineligible		360
(partial rodompton)	mongiolo	267	1,306
NatWest Markets Plc	Tier 2	1 740	
2,000 million 6.934% dated notes 2018 £103 million 9.5% undated subordinated bonds 2018 (callable August 2018)	Ineligible	1,743 103	
750 million 4.35% subordinated notes 2017	Tier 2	100	645
CHF124 million 9.375% subordinated notes 2022	Tier 2		101
CAD420 million 10.50% subordinated notes 2022	Tier 2		255
£564 million 10.50% subordinated notes 2022	Tier 2		489
AU\$880 million 13.125% subordinated notes 2022	Tier 2		548
US\$2,132 million 9.50% subordinated notes 2022 100 million floating rate subordinated notes 2017	Tier 2 Tier 2		1,724 90
£51 million 2.35% + 5 year UK Gilts yield undated subordinated notes (callable December 2012)	Ineligible		51
	g.c.c	1,846	3,903
NatWest Plc	- : 4		470
US\$300 million 8.6250% non-cumulative preference shares (callable)	Tier 1		178 178
			170
NWM N.V. and subsidiaries			
US\$500 million 4.65% dated notes 2018	Tier 2	141	
US\$16 million floating rate notes 2019 (partial redemption)	Tier 2	2	
15 million floating rate notes 2022 (partial redemption)	Tier 2 Tier 2		2 80
250 million 4.70% notes 2019 (partial redemption) US\$500 million 4.65% notes 2018 (partial redemption)	Tier 2		244
OSQUUU Million 4.0070 notoo 2010 (partiar rodomption)	1101 2	143	326
NatWest Holdings Limited	- : -		_
£20 million 11.75% perpetual Tier 2 capital (partial redemption)	Tier 2		9
38 million 11.375% perpetual Tier 2 capital (partial redemption)	Tier 2		6 15
			13

There were no issuances in 2018 or 2017.

20 Other liabilities

					2010	2017
					£m	£m
Retirement benefit liabilities (Note 5)					165	129
Deferred tax (Note 7)					454	583
Liabilities of disposal groups					1	10
Notes in circulation					2,152	2,186
Current tax					100	227
Accruals					1,047	1,074
Deferred income					451	469
Other liabilities					1,580	2,436
Provisions for liabilities and charges					3,004	7,757
•					8,954	14,871
Provisions for liabilities and charges At 1 January 2018 Implementation of IFRS 9 on 1 January 2018 ECL impairment charge RMBS transfer	Payment protection insurance £m 1,053	Other customer redress £m 870	DoJ (2) £m 3,243	Litigation and other regulatory £m 641	Other (3) £m 1,950 85 (18)	Total £m 7,757 85 (18)
Transfer from accruals and other liabilities		(4)	(003)	(4)	15	7
Currency translation and other movements		8	161	21	(1)	189
Charge to income statement	200	245	1,040	181	429	2,095
Releases to income statement	200	(134)	1,040	(325)	(304)	(763)
Provisions utilised	(558)	(449)	(3,761)	(414)	(1,166)	(6,348)
At 31 December 2018	695	536	(3,701)	783	990	3,004
A C I DOCCINDO DO IO	000	330		700	330	5,004

Notes:

- (1) Refer to Note 33 for further details on the impact of IFRS 9 on classification and basis of preparation.
- (2) The RMBS provision has been redesignated DoJ and the remaining RMBS litigation matters transferred to Litigation and other regulatory as of 1 January 2018 to reflect progress on resolution.
- (3) Materially comprises provisions relating to property closures and restructuring costs. At 1 January 2018 Other provisions for liabilities and charges included £800 million in respect of a package of remedies that would conclude its State Aid commitments which were paid during 2018.

Payment protection insurance

2018

To reflect the increased volume of complaints following the FCA is introduction of an August 2019 PPI timebar as outlined in FCA announcement CP17/3 and the introduction of new Plevin (unfair commission) complaint handling rules, RBS increased its provision for PPI by £200 million in 2018 (2017 - £175 million, 2016 - £601 million, 2015 - £600 million) bringing the cumulative charge to £5.3 billion, of which £4.2 billion (79%) in redress and £0.4 billion in administrative expenses had been paid by 31 December 2018. Of the £5.3 billion cumulative charge, £4.8 billion relates to redress and £0.5 billion to administrative expenses.

The principal assumptions underlying the Group s provision in respect of PPI sales are: assessment of the total number of complaints that the Group will receive; the proportion of these that will result in redress; and the average cost of such redress. The number of complaints has been estimated from an analysis of the Group s portfolio of PPI policies sold by vintage and by product. Estimates of the percentage of policyholders that will lodge complaints (the take up rate) and of the number of these that will be upheld (the uphold rate) have been established based on recent experience, guidance in FCA policy statements and the expected rate of responses from proactive customer contact. The average redress assumption is based on recent experience and FCA calculation rules. The table below shows the sensitivity of the provision to changes in the principal assumptions (all other assumptions remaining the same).

			Sensitivity			
Assumptions	Actual to date	Future expected	Change in assumption %	Consequential change in provision £m		
•		•				
Customer initiated complaints (1)	2,779k	260k	+/- 5	+/- 18		
Uphold rate (2)	89%	90%	+/- 1	+/- 4		
Average redress (3)	£1,664	£1,512	+/- 5	+/- 18		
Processing costs per claim (4)	£152	£151	+/- 20k claims	+/- 3		

Notes:

- (1) Claims received directly by RBS to date, including those received via CMCs and Plevin (commission) only. Excluding those for proactive mailings and where no PPI policy exists.
- (2) Average uphold rate per customer initiated claims received directly by RBS including those received via CMCs, to end of timebar for both PPI (mis-sale) and Plevin (commission), excluding those for which no PPI policy exists.
- (3) Average redress for PPI (mis-sale) and Plevin (commission) pay-outs.
- (4) Processing costs per claim on a valid complaints basis, includes direct staff costs and associated overhead excluding FOS fees.

Background information for all material provisions is given in Note 27

Critical accounting policy: Provisions for liabilities

Judgment is involved in determining whether an obligation exists, and in estimating the probability, timing and amount of any outflows. Where the Group can look to another party such as an insurer to pay some or all of the expenditure required to settle a provision, any reimbursement is recognised when, and only when, it is virtually certain that it will be received.

Estimates - Provisions are liabilities of uncertain timing or amount, and are recognised when there is a present obligation as a result of a past event, the outflow of economic benefit is probable and the outflow can be estimated reliably. Any difference between the final outcome and the amounts provided will affect the reported results in the period when the matter is resolved.

21 Non-controlling interests

	Other			
	NWM N.V.	interests	Total	
	£m	£m	£m	
At 1 January 2017	733	62	795	
Currency translation and other adjustments	22	(5)	17	
Profit attributable to non-controlling interests	30	5	35	
Dividends paid	(20)	(5)	(25)	
Equity withdrawn and disposals	(59)		(59)	
At 1 January 2018	706	57	763	
Currency translation and other adjustments	24	1	25	
Profit/(loss) attributable to non-controlling interests	13	(21)	(8)	
Dividends paid		(5)	(5)	
Equity withdrawn and disposals		(21)	(21)	
At 31 December 2018	743	11	754	

22 Share capital and other equity

			Number of shares	
	2018	2017	2018	2017
Allotted, called up and fully paid	£m	£m	000s	000s
Ordinary shares of £1	12,049	11,965	12,048,605	11,964,565
Non-cumulative preference shares of US\$0.01 (1)			10	26,459
Non-cumulative preference shares of 0.01(2)				2,044
Non-cumulative preference shares of £1 (3)				54
Cumulative preference shares of £1	1	1	900	900

Notes:

- (1) 26 million shares with a total nominal value of £0.2 million were redeemed in December 2018. (2017 46 million shares with a total nominal value of £0.3 million were redeemed).
- (2) 2 million shares, with a nominal value of 20 thousand, were redeemed in December 2018.
- (3) 54,442 shares, with a nominal value of £54 thousand, were redeemed in December 2018.

Number of £m shares - 000s 11,823 11,823,163

Shares issued At 1 January 2018 Shares issued At 31 December 2018 142 141,402 11,965 11,964,565 84 84,040 12,049 12,048,605

Ordinary shares

There is no authorised share capital under the company s constitution. At 31 December 2018, the directors had authority granted at the 2018 Annual General Meeting to issue up to £600 million nominal of ordinary shares other than by pre-emption to existing shareholders.

On 6 February 2019 RBS held a General Meeting and shareholders approved a special resolution to give authority for the Company to make off-market purchases of ordinary shares from HM Treasury (or its nominee) at such times as the Directors may determine is appropriate. Full details of the proposal are set out in the Circular and Notice of General Meeting.

During 2018, the company allotted and issued the following new ordinary shares of £1 each. The shares were allotted to UBS AG at the subscription prices determined by reference to the average market prices during the sale periods set out below:

		Subscription			
	Number	price per	Sale period	Gross	Share price
Month	of shares	share	2018	Proceeds	on allotment
April	32 million	261.7265p	23 Feb 17 Apr	£85.0m	268.4p
July	20 million	253.5641p	27 Apr 16 Jul	£50.7m	243.7p

In the three years to 31 December 2018, the percentage increase in issued share capital due to non pre-emptive issuance (excluding employee share schemes) for cash was 2.6%. In addition, the company issued 32 million ordinary shares of £1 each in connection with employee share plans.

In 2018 RBS paid an interim dividend of £241 million, or 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.

If approved, payment will be made on 30 April 2019 to shareholders on the register at the close of business on 22 March 2019. The ex-dividend date will be 21 March 2019. No dividend was paid in 2017.

Other securities

Additional Tier 1 Notes issued by RBS having the legal form of debt are classified as equity under IFRS. Capital recognised for regulatory purposes cannot be redeemed without Prudential Regulation Authority consent. This includes ordinary shares, preference shares and additional Tier 1 Notes.

These securities entitle the holders to interest which may be deferred at the sole discretion of the company. Repayment of the securities is at the sole discretion of the company on giving between 30 and 60 days notice.

Non-cumulative preference shares

Non-cumulative preference shares entitle their holders to periodic non-cumulative cash dividends at specified fixed rates for each Series payable out of distributable profits of the company.

The company may redeem some or all of the non-cumulative preference shares from time to time at the rates detailed in the table below plus dividends otherwise payable for the then current dividend period to the date of redemption.

In December 2018, the company redeemed in whole the Series S non-cumulative preference shares of US\$0.01, Series 1,2 and 3 non-cumulative preference shares of 0.01 and Series 1 non-cumulative preference shares of £1. In December 2017, the company redeemed in whole the Series F, H, L and 1 non-cumulative preference shares of US\$0.01 and Series 1 non-cumulative convertible preference shares of £0.01.

22 Share capital and other equity continued

Number of shares Redemption Redemption price per in issue Interest rate date on or after share

floating

29 September 2017

US\$100,000

Non-cumulative preference shares classified as equity Shares of US\$0.01 - Series U

Note:

Those preference shares where distributions are discretionary are classified as equity.

In the event that the non-cumulative convertible preference shares are not redeemed on or before the redemption date, the holder may convert them into ordinary shares in the company at the prevailing market price.

10,130

On a winding-up or liquidation of the company, the holders of the non-cumulative preference shares are entitled to receive, out of any surplus assets available for distribution to the company s shareholders (after payment of arrears of dividends on the cumulative preference shares up to the date of repayment) pari passu with the cumulative preference shares and all other shares of the company ranking pari passu with the non-cumulative preference shares as regards participation in the surplus assets of the company, a liquidation distribution per share equal to the applicable redemption price detailed in the table above, together with an amount equal to dividends for the then current dividend period accrued to the date of payment, before any distribution or payment may be made to holders of the ordinary shares as regards participation in the surplus assets of the company.

Except as described above, the holders of the non-cumulative preference shares have no right to participate in the surplus assets of the company.

Holders of the non-cumulative preference shares are not entitled to receive notice of or attend general meetings of the company except if any resolution is proposed for adoption by the shareholders of the company to vary or abrogate any of the rights attaching to the non-cumulative preference shares or proposing the winding-up or liquidation of the company. In any such case, they are entitled to receive notice of and to attend the general meeting of shareholders at which such resolution is to be proposed and are entitled to speak and vote on such resolution (but not on any other resolution). In addition, in the event that, prior to any general meeting of shareholders, the company has failed to pay in full the most recent dividend payment due on the Series U non-cumulative dollar preference shares, the holders shall be entitled to receive notice of, attend, speak and vote at such meeting on all matters together with the holders of the ordinary shares. In these circumstances only, the rights of the holders of the non-cumulative preference shares so to vote shall continue until the company shall have resumed the payment in full of the dividends in arrears.

Paid-in equity - comprises equity instruments issued by the company other than those legally constituted as shares.

	2018 £m	2017 £m	2016 £m
Additional Tier 1 notes (1)			
US\$2.0 billion 7.5% notes callable August 2020 (2)	1,278	1,278	1,278
US\$1.15 billion 8% notes callable August 2025 (2) US\$2.65 billion 8.625% notes callable	734	734	734
August 2021 (3) EMTN notes US\$564 million 6.99% capital securities	2,046	2,046	2,046
(redeemed October 2017) CAD321 million 6.666% notes (redeemed October 2017)	-	-	275 156
Trust preferred issues: subordinated notes (4) £93 million 5.6457% 2047			.00
(redeemed June 2017) (5)	4,058	- 4,058	93 4,582

Notes:

- (1) The coupons on these notes are non-cumulative and payable at the company s discretion. In the event the Group s CET1 ratio falls below 7% any outstanding notes will be converted into ordinary shares at a fixed price. While taking the legal form of debt these notes are classified as equity under IFRS.
- (2) Issued in August 2015. In the event of conversion, converted into ordinary shares at a price of \$3.606 nominal per £1 share.
- (3) Issued in August 2016. In the event of conversion, converted into ordinary shares at a price of \$2.284 nominal per £1 share.
- (4) Subordinated notes issued to limited partnerships that have in turn issued partnership preferred securities to RBS Capital Trust D that issued trust preferred securities to investors.
- (5) Preferred securities in issue £93 million RBS Capital Trust D, fixed/floating rate non-cumulative trust preferred securities.

Merger reserve - the merger reserve comprises the premium on shares issued to acquire NatWest, less goodwill amortisation charged under previous GAAP.

22 Share capital and other equity continued

Capital redemption reserve - under UK companies legislation, when shares are redeemed or purchased wholly or partly out of the company s profits, the amount by which the company s issued share capital is diminished must be transferred to the capital redemption reserve. The capital maintenance provisions of UK companies legislation apply to the capital redemption reserve as if it were part of the company s paid up share capital. On 15 June 2017, the Court of Session approved a reduction of RBSG plc capital so that the amounts which stood to the credit of the capital redemption reserve were transferred to retained earnings.

Own shares held - at 31 December 2018, 8 million ordinary shares of £1 each of the company (2017 - 16 million) were held by employee share trusts in respect of share awards and options granted to employees. During the year, the employee share trusts purchased 25 million ordinary shares and delivered 33 million ordinary shares in satisfaction of the exercise of options and the vesting of share awards under the employee share plans.

RBS optimises capital efficiency by maintaining reserves in subsidiaries, including regulated entities. Certain preference shares and subordinated debt are also included within regulatory capital. The remittance of reserves to the company or the redemption of shares or subordinated capital by regulated entities may be subject to maintaining the capital resources required by the relevant regulator.

UK law prescribes that only the reserves of the company are taken into account for the purpose of making distributions and in determining permissible applications of the share premium account.

23 Leases

						Operating
						lease
		Finance lease con	tracts and hire purch	hase agreements		assets:
		Present		and any comments		future
	Gross	value	Other	Future	Present	minimum
	amounts	adjustments	movements	drawdowns	value	lease rentals
		,				
Year in which receipt will occur	£m	£m	£m	£m	£m	£m
2018						
Within 1 year	3,237	(208)	(123)	(70)	2,836	139
After 1 year but within 5 years	4,566	(370)	(100)	` '	4,096	325
After 5 years	1,935	(710)	(38)		1,187	49
Total	9,738	(1,288)	(261)	(70)	8,119	513
	0,7.00	(.,=00)	(=0.)	(. 0)	0,	0.0
2017						
Within 1 year	3.164	(212)	(125)	(70)	2,757	129
After 1 year but within 5 years	4,686	(444)	(94)	(= =)	4,148	257
Alter i year but within 5 years	4,000	(444)	(94)		4,140	237

After 5 years Total	2,062 9,912	(742) (1,398)	(27) (246)	(70)	1,293 8,198	21 407
Nature of operating lease assets on the Transportation Cars and light commercial vehicles Other	ne balance sheet				2018 £m 313 11 285 609	2017 £m 283 45 271 599
Amounts recognised as income and e Finance leases - contingent rental reb Operating leases - minimum rentals p	ate			2018 £m (44) 233	2017 £m (34) 221	2016 £m (76) 239
Finance lease contracts and hire pure Accumulated allowance for uncollecta	•	es		62	63	54

Residual value exposures

The table below gives details of the unguaranteed residual values included in the carrying value of finance lease receivables and operating lease assets.

			2018					2017		
	Year	in which resi	dual value w	ill be recove	red	Year in which residual value will be recovered				red
		After 1	After 2				After 1	After 2		
		year	years				year	years		
	Within	but	but			Within	but	but		
	1	within	within	After 5		1	within	within	After 5	
	year	2 years	5 years	years	Total	year	2 years	5 years	years	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating leases										
- transportation	25	15	94	14	148	29	22	69	17	137
- cars and light commercial										
vehicles	1	1	2		4	5	7	7		19
- other	26	19	37	10	92	21	24	30	9	84
Finance lease contracts	68	32	67	38	205	88	20	72	27	207
Hire purchase agreements	55	2			57	38	2	1		41
	175	69	200	62	506	181	75	179	53	488

Acting as a lessor, RBS provides asset finance to its customers. It purchases plant, equipment and intellectual property, renting them to customers under lease arrangements that, depending on their terms, qualify as either operating or finance leases.

24 Structured entities

A structured entity (SE) is an entity that has been designed such that voting or similar rights are not the dominant factor in deciding who controls the entity, for example, when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. SEs are usually established for a specific, limited purpose. They do not carry out a business or trade and typically have no employees. They take a variety of legal forms - trusts, partnerships and companies - and fulfil many different functions. As well as being a key element of securitisations, SEs are also used in fund management activities in order to segregate custodial duties from the provision of fund management advice.

Consolidated structured entities

Securitisations

In a securitisation, assets, or interests in a pool of assets, are transferred generally to an SE which then issues liabilities to third party investors. The majority of securitisations are supported through liquidity facilities or other credit enhancements.

RBS arranges securitisations to facilitate client transactions and undertakes own asset securitisations to sell or to fund portfolios of financial assets. RBS also acts as an underwriter and depositor in securitisation transactions in both client and proprietary transactions.

RBS involvement in client securitisations takes a number of forms. It may: sponsor or administer a securitisation programme; provide liquidity facilities or programme-wide credit enhancement; and purchase securities issued by the vehicle.

Own asset securitisations

In own-asset securitisations, the pool of assets held by the SE is either originated by RBS, or (in the case of whole loan programmes) purchased from third parties.

The table below analyses the asset categories for those own-asset securitisations where the transferred assets continue to be recorded on RBS balance sheet.

		2018 Debt securities in issue				2017 Debt securities in issu			
		Held by				Held by			
		third	Held by			third	Held by		
	Assets	parties	RBS (1)	Total	Assets	parties	RBS (1)	Total	
Asset type	£m	£m	£m	£m	£m	£m	£m	£m	
Mortgages - Rol	2,817	778	2,239	3,017	4,073		4,688	4,688	
Cash deposits	221				518				
	3,038				4,591				

Note:

(1) Debt securities retained by RBS may be pledged with central banks.

Other credit risk transfer securitisations

RBS also transfers credit risk on originated loans and mortgages without the transfer of assets to an SE. As part of this, RBS enters into credit derivative and financial guarantee contracts with consolidated SEs. At 31 December 2018, debt securities in issue by such SEs (and held by third parties) were £596 million (2017 - £398 million). The associated loans and mortgages at 31 December 2018 were £8,402 million (2017 - £6,092 million).

Covered debt programme

Group companies have assigned loans to customers and debt investments to bankruptcy remote limited liability partnerships to provide security for issues of debt securities. RBS retains all of the risks and rewards of these assets and continues to recognise them. The partnerships are consolidated by RBS and the related covered bonds included within other financial liabilities. At 31 December 2018, £9,446 million (2017 - £8,915) of loans to customers and £478 million (2017 - £76 million) of debt investments provided security for debt securities in issue and other borrowing of £6,627 million (2017 - £6,307 million).

24 Structured entities continued

Unconsolidated structured entities

RBS s interests in unconsolidated structured entities are analysed below

		2018			2017	
	Asset backed securitisation vehicles £m	Investment funds and other £m	Total £m	Asset backed securitisation vehicles £m	Investment funds and other £m	Total £m
Trading assets and derivatives						
Trading assets	590	164	754	884	131	1,015
Derivative assets	495	325	820	660	117	777
Derivative liabilities	(223)	(332)	(555)	(561)	(131)	(692)
Total	862	157	1,019	983	117	1,100
Non trading assets						
Loans to customers	1,636	544	2,180	1,243	120	1,363
Other financial assets	4,461		4,461	3,888	141	4,029
Total	6,097	544	6,641	5,131	261	5,392
Liquidity facilities/loan commitments	2,138	213	2,351	2,117	455	2,572
Guarantees	3	10	13	229	5	234
Maximum exposure	9,100	924	10,024	8,460	838	9,298

25 Asset transfers

Transfers that do not qualify for derecognition

RBS enters into securities repurchase, lending and total return transactions in accordance with normal market practice which includes the provision of additional collateral if necessary. Under standard terms in the UK and US markets, the recipient has an unrestricted right to sell or repledge collateral, subject to returning equivalent securities on settlement of the transaction.

Securities sold under repurchase transactions and transactions with the substance of securities repurchase agreements are not derecognised if RBS retains substantially all the risks and rewards of ownership. The fair value (and carrying value) of securities transferred under such transactions included on the balance sheet, are set out below. All of these securities could be sold or repledged by the holder.

	2018	2017
The following assets have failed derecognition (1)	£m	£m
Trading assets	14,020	10,463
Other financial assets	9,890	13,717
	23,910	24,180

Note:

(1) Associated liabilities were £23,222 million (2017 - £23,692 million).

Assets pledged as collateral

The Group pledges collateral with its counterparties in respect of derivative liabilities and bank and other borrowings.

	2018	2017
Assets pledged against liabilities	£m	£m
Trading assets	35,571	36,631
Loans to banks - amortised cost	1,050	738
Loans to customers - amortised cost	25,930	31,312
Other financial assets	713	3,397
	63,264	72,078
Liabilities secured by assets		
Bank deposits	16,326	20,226
Derivatives	21,884	22,956
	38,210	43,182

26 Capital resources

Under Capital Requirements Regulation (CRR), regulators within the European Union monitor capital on a legal entity basis, with local transitional arrangements on the phasing in of end-point CRR.

The capital resources based on the PRA transitional basis for Bank are set out below.

	PRA transitio 2018 £m	nal basis 2017 £m
Shareholders equity (excluding non-controlling interests)	~	2
Shareholders equity	45,736	48,330
Preference shares - equity	(496)	(2,565)
Other equity instruments	(4,058)	(4,058)
	41,182	41,707
Regulatory adjustments and deductions		
Own credit	(405)	(90)
Defined benefit pension fund adjustment	(394)	(287)
Cash flow hedging reserve	191	(227)
Deferred tax assets	(740)	(849)
Prudential valuation adjustments	(494)	(496)
Goodwill and other intangible assets	(6,616)	(6,543)
Expected losses less impairments	(654)	(1,286)
Foreseeable ordinary and special dividends	(1,326)	
Other regulatory adjustments	(105)	28
	(10,543)	(9,750)
CET1 capital	30,639	31,957
Additional Tier 1 (AT1) capital		
Qualifying instruments and related share premium	4,051	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	5,584	7,597
Tier 1 capital	36,223	39,554
Qualifying Tier 2 capital		
Qualifying instruments and related share premium	6,386	6,501
Qualifying instruments issued by subsidiaries and held by third parties	1,565	1,876
Tier 2 capital	7,951	8,377
Total regulatory capital	44,174	47,931

It is RBS policy to maintain a strong capital base, to expand it as appropriate and to utilise it efficiently throughout its activities to optimise the return to shareholders while maintaining a prudent relationship between the capital base and the underlying risks of the business. In carrying out this policy, RBS has regard to the supervisory requirements of the PRA. The PRA uses capital ratios as a measure of capital adequacy in the UK banking sector, comparing a bank s capital resources with its risk-weighted assets (the assets and off-balance sheet exposures are weighted to

reflect the inherent credit and other risks); by international agreement, the Pillar 1 capital ratios should be not less than 8% with a Common Equity Tier 1 component of not less than 4.5%. RBS has complied with the PRA s capital requirements throughout the year.

A number of subsidiaries and sub-groups within RBS, principally banking entities, are subject to various individual regulatory capital requirements in the UK and overseas. Furthermore, the payment of dividends by subsidiaries and the ability of members of RBS to lend money to other members of RBS may be subject to restrictions such as local regulatory or legal requirements, the availability of reserves and financial and operating performance.

27 Memorandum items

Contingent liabilities and commitments

The amounts shown in the table below are intended only to provide an indication of the volume of business outstanding at 31 December 2018. Although RBS is exposed to credit risk in the event of a customer s failure to meet its obligations, the amounts shown do not, and are not intended to, provide any indication of RBS s expectation of future losses.

	Less than 1 year £m	More than 1 year but less than 3 years £m	More than 3 years but less than 5 years £m	Over 5 years £m	2018 £m	2017 £m
Guarantees and assets pledged as collateral security	1,296	414	250	1,992	3,952	7,718
Other contingent liabilities	1,111	582	211	1,148	3,052	3,391
Standby facilities, credit lines and other commitments	61,105	20,934	32,535	5,305	119,879	124,941
Contingent liabilities and commitments	63,512	21,930	32,996	8,445	126,883	136,050

Banking commitments and contingent obligations, which have been entered into on behalf of customers and for which there are corresponding obligations from customers, are not included in assets and liabilities. RBS s maximum exposure to credit loss, in the event of its obligation crystallising and all counterclaims, collateral or security proving valueless, is represented by the contractual nominal amount of these instruments included in the table above. These commitments and contingent obligations are subject to RBS s normal credit approval processes.

Guarantees - RBS gives guarantees on behalf of customers. A financial guarantee represents an irrevocable undertaking that RBS will meet a customer s specified obligations to third party if the customer fails to do so. The maximum amount that RBS could be required to pay under a guarantee is its principal amount as in the table above. RBS expects most guarantees to expire unused.

Other contingent liabilities - these include standby letters of credit, supporting customer debt issues and contingent liabilities relating to customer trading activities such as those arising from performance and customs bonds, warranties and indemnities.

Standby facilities and credit lines - under a loan commitment, RBS agrees to make funds available to a customer in the future. Loan commitments, which are usually for a specified term, may be unconditionally cancellable or may persist, provided all conditions in the loan facility are satisfied or waived. Commitments to lend include commercial standby facilities and credit lines, liquidity facilities to commercial paper conduits and unutilised overdraft facilities.

Other commitments - these include documentary credits, which are commercial letters of credit providing for payment by RBS to a named beneficiary against presentation of specified documents, forward asset purchases, forward deposits placed and undrawn note issuance and

revolving underwriting facilities, and other short-term trade related transactions.

Contractual obligations for future expenditure not provided for in the accounts

The following table shows contractual obligations for future expenditure not provided for in the accounts at the year end.

	2018	2017
Operating leases	£m	£m
Minimum rentals payable under non-cancellable leases (1)		
- within 1 year	232	220
- after 1 year but within 5 years	736	696
- after 5 years	1,721	1,676
	2,689	2,592
Capital expenditure on property, plant and equipment	17	18
Contracts to purchase goods or services (2)	541	682
	3,247	3,292

Notes:

- (1) Predominantly property leases.
- (2) Of which due within 1 year: £253 million (2017 £276 million).

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Trustee and other fiduciary activities

In its capacity as trustee or other fiduciary role, the Group may hold or place assets on behalf of individuals, trusts, companies, pension schemes and others. The assets and their income are not included in the Group s financial statements. The Group earned fee income of £257 million (2017 - £244 million; 2016 - £251 million) from these activities.

The Financial Services Compensation Scheme

The Financial Services Compensation Scheme (FSCS), the UK s statutory fund of last resort for customers of authorised financial services firms, pays compensation if a firm is unable to meet its obligations. The FSCS funds compensation for customers by raising management expenses levies and compensation levies on the industry. In relation to protected deposits, each deposit-taking institution contributes towards these levies in proportion to their share of total protected deposits on 31 December of the year preceding the scheme year (which runs from 1 April to 31 March), subject to annual maxima set by the Prudential Regulation Authority. In addition, the FSCS has the power to raise levies on a firm that has ceased to participate in the scheme and is in the process of ceasing to be authorised for the costs that it would have been liable to pay had the FSCS made a levy in the financial year it ceased to be a participant in the scheme.

The FSC had borrowed from HM Treasury to fund compensation costs associated with the failure of Bradford & Bingley, Heritable Bank, Kaupthing Singer & Friedlander, Landsbanki Icesave and London Scottish Bank plc. The industry has now repaid all outstanding loans with the final £4.7 billion being repaid in June 2018. The loan was interest bearing with the reference rate being the higher of 12 month LIBOR plus 111 basis points or the relevant gilt rate for the equivalent cost of borrowing from HMT.

RBS Group has accrued £1.8 million for its share of estimated FSCS levies.

Litigation, investigations and reviews

The Royal Bank of Scotland Group plc (the company or RBSG) and certain members of the Group are party to legal proceedings and the subject of investigation and other regulatory and governmental action (Matters) in the United Kingdom (UK), the United States (US), the European Union (EU) and other jurisdictions.

RBS recognises a provision for a liability in relation to these Matters when it is probable that an outflow of economic benefits will be required to settle an obligation resulting from past events, and a reliable estimate can be made of the amount of the obligation.

In many proceedings and investigations, it is not possible to determine whether any loss is probable or to estimate reliably the amount of any loss, either as a direct consequence of the relevant proceedings and investigations or as a result of adverse impacts or restrictions on RBS s reputation, businesses and operations. Numerous legal and factual issues may need to be resolved, including through potentially lengthy discovery and document production exercises and determination of important factual matters, and by addressing novel or unsettled legal questions relevant to the proceedings in question, before a liability can reasonably be estimated for any claim. RBS cannot predict if, how, or when such claims will be resolved or what the eventual settlement, damages, fine, penalty or other relief, if any, may be, particularly for claims that are at an early stage in their development or where claimants seek substantial or indeterminate damages.

There are situations where RBS may pursue an approach that in some instances leads to a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, or in order to take account of the risks inherent in defending claims or investigations, even for those Matters for which RBS believes it has credible defences and should prevail on the merits. The uncertainties inherent in all such Matters affect the amount and timing of any potential outflows for both Matters with respect to which provisions have been established and other contingent liabilities.

The future outflow of resources in respect of any Matter may ultimately prove to be substantially greater than or less than the aggregate provision that RBS has recognised. Where (and as far as) liability cannot be reasonably estimated, no provision has been recognised.

Other than those discussed below, no member of the Group is or has been involved in governmental, legal or regulatory proceedings (including those which are pending or threatened) that are expected to be material, individually or in aggregate. RBS expects that in future periods, additional provisions, settlement amounts and customer redress payments will be necessary, in amounts that are expected to be substantial in some instances.

For a discussion of certain risks associated with the Group s litigation, investigations and reviews, see the Risk Factor relating to legal, regulatory and governmental actions and investigations set out on page 274.

Litigation

Residential mortgage-backed securities (RMBS) litigation in the US

RBS companies continue to defend RMBS-related claims in the US in which plaintiffs allege that certain disclosures made in connection with the relevant offerings of RMBS contained materially false or misleading statements and/or omissions regarding the underwriting standards pursuant to which the mortgage loans underlying the RMBS were issued. The remaining RMBS lawsuits against RBS companies consist of cases filed by the Federal Home Loan Banks of Boston and Seattle and the Federal Deposit Insurance Corporation that together involve the issuance of less than US\$1 billion of RMBS issued primarily from 2005 to 2007. In addition, NatWest Markets Securities Inc. previously agreed to settle a purported RMBS class action entitled New Jersey Carpenters Health Fund v. Novastar Mortgage Inc. et al. for US\$55.3 million, which has been paid into escrow pending court approval of the settlement.

London Interbank Offered Rate (LIBOR) and other rates litigation

NatWest Markets Plc and certain other members of the Group, including RBSG, are defendants in a number of class actions and individual claims pending in the US (primarily in the United States District Court for the Southern District of New York (SDNY)) with respect to the setting of LIBOR and certain other benchmark interest rates. The complaints allege that certain members of the Group and other panel banks violated various federal laws, including the US commodities and antitrust laws, and state statutory and common law, as well as contracts, by manipulating LIBOR and prices of LIBOR-based derivatives in various markets through various means.

Several class actions relating to USD LIBOR, as well as more than two dozen non-class actions concerning USD LIBOR, are part of a coordinated proceeding in the SDNY. In December 2016, the SDNY held that it lacks personal jurisdiction over NatWest Markets Plc with respect to certain claims. As a result of that decision, all Group companies have been dismissed from each of the USD LIBOR-related class actions (including class

actions on behalf of over-the-counter plaintiffs, exchanged-based purchaser plaintiffs, bondholder plaintiffs, and lender plaintiffs), but six non-class cases in the coordinated proceeding remain pending against Group defendants. The dismissal of Group companies for lack of personal jurisdiction is the subject of a pending appeal to the United States Court of Appeals for the Second Circuit.

Among the non-class claims dismissed by the SDNY in December 2016 were claims that the Federal Deposit Insurance Corporation (FDIC) had asserted on behalf of certain failed US banks. On 10 July 2017, the FDIC, on behalf of 39 failed US banks, commenced substantially similar claims against RBS companies and others in the High Court of Justice of England and Wales. The action alleges that the defendants breached

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Litigation, investigations and reviews

English and European competition law as well as asserting common law claims of fraud under US law.

In addition, there are two class actions relating to JPY LIBOR and Euroyen TIBOR, both pending before the same judge in the SDNY. In the first class action, which relates to Euroyen TIBOR futures contracts, the court dismissed the plaintiffs antitrust claims in March 2014, but declined to dismiss their claims under the Commodity Exchange Act for price manipulation, and the case is proceeding in the discovery phase. The second class action relates to other derivatives allegedly tied to JPY LIBOR and Euroyen TIBOR. The court dismissed that case on 10 March 2017 on the ground that the plaintiffs lack standing. The plaintiffs have commenced an appeal of that decision.

There is also a class action relating to the Singapore Interbank Offered Rate and Singapore Swap Offer Rate pending in the SDNY. In that case, the court denied defendants motion to dismiss on 5 October 2018. The court s ruling would permit certain antitrust claims to proceed against NatWest Markets Plc and other non-RBS defendants, however, in November 2018, the defendants filed another motion to dismiss plaintiffs claims.

Four other class action complaints were filed against RBS companies in the SDNY, each relating to a different reference rate. In the case relating to Pound Sterling LIBOR, the court dismissed all claims against RBS companies, for various reasons, on 21 December 2018, and plaintiffs are seeking reconsideration of that decision. In the case relating to the Australian Bank Bill Swap Reference Rate, the court dismissed all claims against RBS companies for lack of personal jurisdiction on 26 November 2018, but plaintiffs have filed an amended complaint, which will be the subject of a further motion to dismiss. In the case relating to Euribor, the court dismissed all claims against RBS companies for lack of personal jurisdiction on 21 February 2017. In the case relating to Swiss Franc LIBOR, the court dismissed all claims against all defendants on various grounds on 25 September 2017, but held that it has personal jurisdiction over NatWest Markets Plc and allowed the plaintiffs to replead their complaint. Defendants renewed motion to dismiss the amended complaint relating to Swiss Franc LIBOR remains pending.

NatWest Markets Plc has also been named as a defendant in a motion to certify a class action relating to LIBOR in the Tel Aviv District Court in Israel.

NatWest Markets Plc is defending a claim in the High Court in London brought by London Bridge Holdings Ltd and others, in which the claimants allege LIBOR manipulation in connection with the sale of interest rate hedging products. The sum claimed in that case is £446.7 million.

On 4 February 2019, a claim was issued against NatWest Markets Plc by London Borough of Newham, in respect of certain lender option borrower option (LOBO) loans.

Details of UK litigation claims in relation to the alleged mis-sale of interest rate hedging products (IRHPs) involving LIBOR-related allegations are set out under Interest rate hedging products litigation on page 236.

In January 2019, a class action antitrust complaint was filed in the SDNY alleging that the defendants (USD ICE LIBOR panel banks and affiliates) have conspired to suppress USD ICE LIBOR from 2014 to the present by submitting incorrect information to ICE about their borrowing costs. The RBS defendants are RBSG, NatWest Markets Plc, NatWest Markets Securities Inc., and NatWest Plc.

FX antitrust litigation

NatWest Markets Plc and certain other members of the Group, including RBSG, are defendants in several cases relating to NatWest Markets Plc s foreign exchange (FX) business, each of which is pending before the same federal judge in the SDNY.

In 2015, RBS companies paid US\$255 million to settle the consolidated antitrust class action on behalf of persons who entered into over-the-counter FX transactions with defendants or who traded FX instruments on exchanges. That settlement received final court approval in August 2018. On 7 November 2018, some members of the settlement class who opted out of the settlement filed their own non-class complaint in the SDNY asserting antitrust claims against RBS companies and others. On 31 December 2018, some of the same claimants, as well as others, filed proceedings in the High Court in London, asserting competition claims against NatWest Markets Plc and several other banks.

Two other FX-related class actions remain pending. First, there is a class action on behalf of consumers and end-user businesses, which is proceeding in the discovery phase following the SDNY s denial of the defendants motions to dismiss in March 2018. Second, there is a class action on behalf of indirect purchasers of FX instruments (which plaintiffs define as persons who transacted FX instruments with retail foreign exchange dealers that transacted directly with defendant banks). That case is also proceeding in discovery following the SDNY s denial of defendants motion to dismiss on 25 October 2018.

RBS companies have also been named as defendants in two motions to certify FX-related class actions in the Tel Aviv District Court in Israel.

Certain other foreign exchange transaction related claims have been or may be threatened against RBS companies. RBS cannot predict whether any of these claims will be pursued, but expects that some may.

US Treasury securities antitrust litigation

NatWest Markets Securities Inc. is a defendant in a consolidated antitrust class action pending in the SDNY on behalf of persons who transacted in US Treasury securities or derivatives based on such instruments, including futures and options. The plaintiffs allege that defendants rigged the US Treasury securities auction bidding process to deflate prices at which they bought such securities and colluded to increase the prices at which they sold such securities to plaintiffs. The defendants motion to dismiss this matter remains pending.

Swaps antitrust litigation

NatWest Markets Plc and other members of the Group, including RBSG, as well as a number of other interest rate swap dealers, are defendants in several cases pending in the SDNY alleging violations of the US antitrust laws in the market for interest rate swaps. There is a consolidated class action complaint on behalf of persons who entered into interest rate swaps with the defendants, as well as non-class action claims by three swap execution facilities (TeraExchange, Javelin, and trueEx). The plaintiffs allege that the swap execution facilities would have successfully established exchange-like trading of interest rate swaps if the defendants had not unlawfully conspired to prevent that from happening through boycotts and other means. Discovery in these cases is ongoing.

In addition, on 8 June 2017, TeraExchange filed a complaint against RBS companies, including RBSG, as well as a number of other credit default swap dealers, in the SDNY. TeraExchange alleges it would have established exchange-like trading of credit default swaps if the defendant dealers had not engaged in an unlawful antitrust conspiracy. On 1 October 2018, the court dismissed all claims against RBS companies.

Madoff

NatWest Markets N.V. (NWM N.V.) is a defendant in two actions filed by Irving Picard, as trustee for the bankruptcy estates of Bernard L. Madoff and Bernard L. Madoff Investment Securities LLC, in bankruptcy court in New York. In both cases, the trustee alleges that certain transfers received by NatWest Markets N.V. amounted to fraudulent conveyances that should be clawed back for the benefit of the Madoff estate.

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Litigation, investigations and reviews

In the primary action, filed in December 2010, the trustee originally sought to recover US\$75.8 million in redemptions that NWM N.V. allegedly received from certain Madoff feeder funds and US\$162.1 million that NWM N.V. allegedly received from certain swap counterparties. In August 2018, the trustee voluntarily dismissed a portion of this claim (relating to US\$74.6 million received from certain swap counterparties) without prejudice to-refiling at a later date. Otherwise this action remains pending before the bankruptcy court, where it will in due course be the subject of a motion to dismiss. In the second action, filed in October 2011, the trustee seeks to recover an additional US\$21.8 million. In November 2016, the bankruptcy court dismissed this case on international comity grounds, and that decision is currently on appeal to the United States Court of Appeals for the Second Circuit.

Thornburg adversary proceeding

Certain RBS companies were defendants in an adversary proceeding filed in the US bankruptcy court in Maryland by the trustee for TMST, Inc. (formerly known as Thornburg Mortgage, Inc.). The trustee sought recovery of transfers made under certain restructuring agreements as avoidable fraudulent and preferential transfers. On 26 October 2018, the bankruptcy court approved a US\$23.5 million settlement of this matter. RBS companies have paid this settlement amount, which was covered by a provision existing as of 30 September 2018.

Interest rate hedging products and similar litigation

RBS is dealing with a number of active litigation claims in the UK in relation to the alleged mis-selling of interest rate hedging products (IRHPs). In general claimants allege that the relevant IRHPs were mis-sold to them, with some also alleging that misrepresentations were made in relation to LIBOR. Claims have been brought by customers who were considered under the UK Financial Conduct Authority (FCA) redress programme for IRHPs, as well as customers who were outside of the scope of that programme, which was closed to new entrants on 31 March 2015. RBS remains exposed to potential claims from customers who were either ineligible to be considered for redress or who are dissatisfied with their redress offers.

Property Alliance Group (PAG) v NatWest Markets Plc was the leading case before the English High Court involving both IRHP mis-selling and LIBOR misconduct allegations. The amount claimed was £34.8 million and the trial ended in October 2016. In December 2016 the Court dismissed all of PAG s claims. PAG appealed that decision, and the Court of Appeal s judgment dismissing the appeal was handed down on 2 March 2018. On 24 July 2018 the Supreme Court declined the request from PAG for permission to appeal an aspect of the judgment relating to implied representations of Sterling LIBOR rates. The Court of Appeal s decision may impact other IRHP and LIBOR-related cases currently pending in the English courts, some of which involve substantial amounts.

Separately, NatWest Markets Plc is defending claims filed in France by five French local authorities relating to structured interest rate swaps. The plaintiffs allege, among other things, that the swaps are void for being illegal transactions, that they were mis-sold, and that information / advisory duties were breached. One of the claims is now at an end following the Court of Appeal s dismissal of the claim, and is not being appealed to the Supreme Court. Three of the claims were also dismissed but are subject to appeal to the Supreme Court. The fifth claim remains to be heard before the lower courts.

Tax dispute

HMRC issued a tax assessment in 2012 against NatWest Markets Plc for approximately £86 million regarding a value-added-tax (VAT) matter in relation to the trading of European Union Allowances (EUAs) by an RBS joint venture subsidiary in 2009. RBS has lodged an appeal, which is still to be heard, before the First-tier Tribunal (Tax), a specialist tax tribunal, challenging the assessment (the Tax Dispute). In the event that the assessment is upheld, interest and costs would be payable, and a penalty of up to 100 per cent of the VAT held to have been legitimately denied by HMRC could also be levied. Separately, RBS is a named defendant in civil proceedings before the High Court brought in 2015 by ten companies (all in liquidation) (the Liquidated Companies) and their respective liquidators (together, the Claimants). The Liquidated Companies previously traded in EUAs in 2009 and are alleged to be defaulting traders within (or otherwise connected to) the EUA supply chains forming the subject of the Tax Dispute. The Claimants claim approximately £71.4 million plus interest and costs and allege that NatWest Markets Plc dishonestly assisted the directors of the Liquidated Companies in the breach of their statutory duties and/or knowingly participated in the carrying on of the business of the Liquidated Companies with intent to defraud creditors. The trial in that matter concluded on 20 July 2018 and judgment is awaited.

US Anti-Terrorism Act litigation

NatWest Plc is defending lawsuits filed in the United States District Court for the Eastern District of New York by a number of US nationals (or their estates, survivors, or heirs) who were victims of terrorist attacks in Israel. The plaintiffs allege that NatWest Plc is liable for damages arising from those attacks pursuant to the US Anti-Terrorism Act because NatWest Plc previously maintained bank accounts and transferred funds for the Palestine Relief & Development Fund, an organisation which plaintiffs allege solicited funds for Hamas, the alleged perpetrator of the attacks.

In October 2017, the trial court dismissed claims against NatWest Plc with respect to two of the 18 terrorist attacks at issue. On 14 March 2018, the trial court granted a request by NatWest Plc for leave to file a renewed summary judgment motion in respect of the remaining claims, which has now been filed. No trial date has been set.

NatWest Markets N.V. and certain other financial institutions, are defendants in several actions pending in the United States District Courts for the Eastern and Southern Districts of New York, filed by a number of US nationals (or their estates, survivors, or heirs), most of whom are or were US military personnel, who were killed or injured in attacks in Iraq between 2003 and 2011. NatWest Markets Plc is also a defendant in some of these cases.

The attacks at issue in the cases were allegedly perpetrated by Hezbollah and certain Iraqi terror cells allegedly funded by the Islamic Republic of Iran. According to the plaintiffs—allegations, the defendants are liable for damages arising from the attacks because they allegedly conspired with Iran and certain Iranian banks to assist Iran in transferring money to Hezbollah and the Iraqi terror cells, in violation of the US Anti-Terrorism Act, by agreeing to engage in—stripping—of transactions initiated by the Iranian banks so that the Iranian nexus to the transactions would not be detected. The first of these actions was filed in the United States District Court for the Eastern District of New York in November 2014. On 27 July 2018, the magistrate judge in that case issued a report to the district court recommending that the district court deny the defendants—pending motion to dismiss. NatWest Markets N.V. has requested that the district court grant the motion to dismiss notwithstanding the magistrate—s recommendation. The other actions are either subject to a pending motion to dismiss, or will be the subject of such a motion in due course.

Securities underwriting litigation

NatWest Markets Securities Inc. is an underwriter defendant in several securities class actions in the US in which plaintiffs generally allege that an issuer of public debt or equity securities, as well as the underwriters of the securities (including NatWest Markets Securities Inc.), are liable to purchasers for misrepresentations and omissions made in connection with the offering of such securities.

Investigations and reviews

RBS s businesses and financial condition can be affected by the actions

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Litigation, investigations and reviews

of various governmental and regulatory authorities in the UK, the US, the EU and elsewhere. RBS has engaged, and will continue to engage, in discussions with relevant governmental and regulatory authorities, including in the UK, the US, the EU and elsewhere, on an ongoing and regular basis, and in response to informal and formal inquiries or investigations, regarding operational, systems and control evaluations and issues including those related to compliance with applicable laws and regulations, including consumer protection, business conduct, competition/anti-trust, anti-bribery, anti-money laundering and sanctions regimes.

The NatWest Markets business in particular has been providing, and continues to provide, information regarding a variety of matters, including, for example, the setting of benchmark rates and related derivatives trading, conduct in the foreign exchange market, and various issues relating to the issuance, underwriting, and sales and trading of fixed-income securities, including structured products and government securities, some of which have resulted, and others of which may result, in investigations or proceedings.

Any matters discussed or identified during such discussions and inquiries may result in, among other things, further inquiry or investigation, other action being taken by governmental and regulatory authorities, increased costs being incurred by RBS, remediation of systems and controls, public or private censure, restriction of RBS s business activities and/or fines. Any of the events or circumstances mentioned in this paragraph or below could have a material adverse effect on RBS, its business, authorisations and licences, reputation, results of operations or the price of securities issued by it.

RBS is co-operating fully with the investigations and reviews described below.

RMBS and other securitised products investigations

In the US, RBS companies have in recent years been involved in investigations relating to, among other things, issuance, underwriting and trading in RMBS and other mortgage-backed securities and collateralised debt obligations (CDOs).

Investigations by the US Department of Justice (DoJ) and certain state attorneys general relating to the issuance and underwriting of RMBS were resolved in 2018. Certain other state attorneys general have sought information regarding similar issues, and RBS is aware that at least one such investigation is ongoing.

In October 2017, NatWest Markets Securities Inc. entered into a non-prosecution agreement (NPA) with the United States Attorney for the District of Connecticut (USAO) in connection with alleged misrepresentations to counterparties relating to secondary trading in various forms of asset-backed securities. As part of the NPA, the USAO agreed not to file criminal charges relating to certain conduct and information described in the NPA if NatWest Markets Securities Inc. complies with the terms of the NPA. In October 2018, NatWest Markets Securities Inc. agreed to a

six-month extension of the NPA while the USAO reviews the circumstances of an unrelated matter reported during the course of the NPA.

US mortgages - loan repurchase matters

RBS s NatWest Markets business in North America was a purchaser of non-agency residential mortgages in the secondary market, and an issuer and underwriter of non-agency RMBS, and, in some circumstances, made certain representations and warranties regarding the characteristics of the underlying loans. As a result, NatWest Markets may be, or may have been, contractually required to repurchase such loans or indemnify certain parties against losses for certain breaches of such representations and warranties. Depending on the extent to which such loan repurchase related claims are pursued against and not rebutted by NatWest Markets on timeliness or other grounds, the aggregate potential impact on RBS, if any, may be material.

Foreign exchange related investigations

In 2014 and 2015, NatWest Markets Plc paid significant penalties to resolve investigations into its FX business by the FCA, the CFTC, the DoJ, and the Board of Governors of the Federal Reserve System (Federal Reserve). As part of its plea agreement with the DoJ, NatWest Markets Plc pled guilty to a one-count information charging an antitrust conspiracy occurring between as early as December 2007 to at least April 2010. NatWest Markets Plc admitted that it knowingly, through one of its euro/US dollar currency traders, joined and participated in a conspiracy to eliminate competition in the purchase and sale of the euro/US dollar currency pair exchanged in the FX spot market. On 5 January 2017, the United States District Court for the District of Connecticut imposed a sentence on NatWest Markets Plc consisting of a US\$395 million fine and a three-year probation, which among other things, prohibits NatWest Markets Plc from committing another crime in violation of US law or engaging in the FX trading practices that form the basis for the charged crime and requires NatWest Markets Plc to implement a compliance program designed to prevent and detect the unlawful conduct at issue and to strengthen its compliance and internal controls as required by other regulators (including the FCA and the CFTC). A violation of the terms of probation could lead to the imposition of additional penalties.

As part of the settlement with the Federal Reserve, NatWest Markets Plc and NatWest Markets Securities Inc. entered into a cease and desist order (the FX Order). In the FX Order, which is publicly available and will remain in effect until terminated by the Federal Reserve, NatWest Markets Plc and NatWest Markets Securities Inc. agreed to take certain remedial actions with respect to FX activities and certain other designated market activities, including the creation of an enhanced written internal controls and compliance program, an improved compliance risk management program, and an enhanced internal audit program. NatWest Markets Plc and NatWest Markets Securities Inc. are obligated to implement and comply with these programs as approved by the Federal Reserve, and are also required to conduct, on an annual basis, a review of applicable compliance policies and procedures and a risk-focused sampling of key controls.

NatWest Markets Plc is co-operating with investigations and responding to inquiries from other governmental and regulatory (including competition) authorities on similar issues relating to failings in its FX business. The timing and amount of financial penalties with respect to any further settlements and related litigation risks and collateral consequences remain uncertain and may well be material.

FCA review of RBS s treatment of SMEs

In 2014, the FCA appointed an independent Skilled Person under section 166 of the Financial Services and Markets Act 2000 to review RBS s treatment of SME customers whose relationship was managed by RBS s Global Restructuring Group (GRG) in the period 1 January 2008 to 31 December 2013

The Skilled Person delivered its final report to the FCA during September 2016, and the FCA published an update in November 2016. In response, RBS announced redress steps for SME customers in the UK and the Republic of Ireland that were in GRG between 2008 and 2013. These steps were (i) an automatic refund of certain complex fees; and (ii) a new complaints process, overseen by an independent third party. The complaints process closed on 22 October 2018 for new complaints in the UK and, with the exception of a small cohort of potential complainants for whom there is an extended deadline, on 31 December 2018 for new complaints in the Republic of Ireland.

RBS made a provision of £400 million in 2016, in respect of the above redress steps, of which £270 million had been utilised by 31 December 2018. An additional provision of £50 million was taken at 31 December 2018 reflecting the increased costs of the complaints process.

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Litigation, investigations and reviews

The FCA published a summary of the Skilled Person s report in November 2017The UK House of Commons Treasury Select Committee, seeking to rely on Parliamentary powers, published the full version of the Skilled Person s report on 20 February 2018. On 31 July 2018, the FCA confirmed that it had concluded its investigation and that it does not intend to take disciplinary or prohibitory action against any person in relation to these matters. It has subsequently indicated that it will shortly publish a final summary of its investigative work.

Investment advice review

As a result of an FSA review in 2013, the FCA required RBS to carry out a past business review and customer contact exercise on a sample of historic customers who received investment advice on certain lump sum products, during the period from March 2012 until December 2012. The review was conducted by an independent Skilled Person under section 166 of the Financial Services and Markets Act 2000. Redress was paid to certain customers in that sample group.

RBS later agreed with the FCA that it would carry out a wider review/remediation exercise relating to certain investment, insurance and pension sales from 1 January 2011 to 1 April 2015. That exercise is materially complete. Phase 2 (covering sales in 2010) started in April 2018 and was targeted for completion by the end of 2018, however the deadline has now been extended to April 2019.

In addition, RBS agreed with the FCA that it would carry out a remediation exercise, for a specific customer segment who were sold a particular structured product. Redress was paid to certain customers who took out the structured product.

RBS provisions in relation to these matters totalled £206 million as at 31 December 2018, of which £144 million had been utilised by that date.

Packaged accounts

RBS has had dedicated resources in place since 2013 to investigate and resolve packaged account complaints on an individual basis. RBS provisions for this matter totalled £444 million as at 31 December 2018. The FCA conducted a thematic review of packaged bank accounts across the UK from October 2014 to April 2016, the results of which were published in October 2016. RBS made amendments to its sales process and complaints procedures to address the findings from that review.

FCA investigation into RBS s compliance with the Money Laundering Regulations 2007

On 21 July 2017, the FCA notified RBS that it was undertaking an investigation into RBS s compliance with the Money Laundering Regulations 2007 in relation to certain customers. Following amendment to the scope of the investigation, there are currently two areas under review: (1) compliance with Money Laundering Regulations in respect of Money Service Business customers; and (2) the Suspicious Transactions regime in relation to the events surrounding particular customers. The investigations in both areas are assessing both criminal and civil culpability. RBS is cooperating with the investigations, including responding to several information requests from the FCA.

Systematic Anti-Money Laundering Programme assessment

In December 2018, the FCA commenced a Systematic Anti-Money Laundering Programme assessment of RBS. RBS is responding to requests for information from the FCA.

Payment Protection Insurance (PPI)

Since 2011, RBS has been implementing the FCA is policy statement for the handling of complaints about the mis-selling of PPI (Policy Statement 10/12). In August 2017, the FCA is new rules and guidance on PPI complaints handling (Policy Statement 17/3) came into force. The Policy Statement introduced new so called Plevin rules, under which customers may be eligible for redress if the bank earned a high level of commission from the sale of PPI, but did not disclose this detail at the point of sale. The Policy Statement also introduced a two year PPI deadline, due to expire in August 2019, before which new PPI complaints must be made. RBS is implementing the Policy Statement.

RBS has made provisions totalling £5.3 billion to date for PPI claims, including an additional provision of £200 million taken at Q3 2018, reflecting greater than predicted complaints volumes. Of the £5.3 billion cumulative provision, £4.7 billion had been utilised by 31 December 2018.

FCA mortgages market study

In December 2016, the FCA launched a market study into the provision of mortgages. On 4 May 2018 the interim report was published. This found that competition was working well for many customers but also proposed remedies to help customers shop around more easily for mortgages. Following a period of consultation, the final report is due to be published in Q1 2019.

FCA strategic review of retail banking models

On 11 May 2017 the FCA announced a strategic review of retail banking models. The FCA used the review to understand how these models operate, including how free if in credit banking is paid for and the impact of changes such as increased use of digital channels and reduced branch usage.

On 18 December 2018, the FCA published its final report containing a number of findings, including that personal current accounts are an important source of competitive advantage for major banks. Following the review, the FCA is to continue to monitor retail banking models, analyse new payments business models and undertake exploratory work to understand certain aspects of SME banking.

US/Swiss tax programme

In December 2015, Coutts & Co Ltd., a member of the Group incorporated in Switzerland, entered into a non-prosecution agreement (the NPA) with the DoJ. This was entered into as part of the DoJ s programme for Swiss banks, related to its investigations of the role that Swiss banks played in concealing the assets of US tax payers in offshore accounts (US related accounts). Coutts & Co Ltd. paid a US\$78.5 million penalty and acknowledged responsibility for certain conduct set forth in a statement of facts accompanying the agreement. Under the NPA, which has a term of four years, Coutts & Co Ltd. is required, among other things, to provide certain information, cooperate with the DoJ s investigations, and commit no U.S. federal offences. If Coutts & Co Ltd. abides by the NPA, the DoJ will not prosecute it for certain tax-related and monetary transaction offences in connection with US related accounts.

Since the signing of the NPA in 2015, Coutts & Co Ltd has identified and disclosed to the DoJ a number of US related accounts that were not included in its original submission supporting the NPA. Coutts & Co Ltd is in discussions with the DoJ regarding these additional accounts and has agreed with the DoJ to undertake additional review work, which is ongoing.

Enforcement proceedings and investigations in relation to Coutts & Co Ltd

In February 2017, the Swiss Financial Market Supervisory Authority (FINMA) took enforcement action against Coutts & Co Ltd with regard to failures of money laundering checks and controls on certain client accounts that were connected with the Malaysian sovereign wealth fund, 1MDB, and were held with Coutts & Co Ltd. FINMA accordingly required Coutts & Co Ltd to disgorge profits of CHF 6.5 million. There are two administrative criminal proceedings pending before the Swiss Finance Department against two former employees of Coutts & Co Ltd. In addition, the Monetary Authority of Singapore (MAS) supervisory examination of Coutts & Co Ltd s Singapore branch revealed breaches of anti-money laundering requirements. MAS imposed on Coutts & Co Ltd financial penalties amounting to SGD 2.4 million in December 2016.

27 Memorandum items continued

Litigation, investigations and reviews

In addition, Coutts & Co Ltd continues to assist with investigations and enquiries from authorities where requested to do so.

Regulator requests concerning certain historic Russian transactions

Media coverage in 2017 highlighted an alleged money laundering scheme involving Russian entities between 2010 and 2014. Allegedly certain European banks, including RBS and 16 other UK based financial institutions, and certain US banks, were involved in processing certain transactions associated with this scheme. RBS has responded to requests for information from the FCA, PRA and regulators in other jurisdictions.

Review and investigation of treatment of tracker mortgage customers in Ulster Bank Ireland DAC

In December 2015, the Central Bank of Ireland (CBI) announced that it had written to a number of lenders requiring them to put in place a robust plan and framework to review the treatment of customers who have been sold mortgages with a tracker interest rate or with a tracker interest rate entitlement. The CBI stated that the intended purpose of the review was to identify any cases where customers—contractual rights under the terms of their mortgage agreements were not fully honoured, or where lenders did not fully comply with various regulatory requirements and standards regarding disclosure and transparency for customers. The CBI has required Ulster Bank Ireland DAC (UBI DAC), a member of the Group incorporated in the Republic of Ireland, to participate in this review and UBI DAC is co-operating with the CBI in this regard. UBI DAC submitted its phase 2 report to the CBI in March 2017, identifying impacted customers. The redress and compensation phase (phase 3) commenced in Q4 2017 and is ongoing.

RBS has made provisions totalling 297 million (£266 million) to date for this matter. Of the 297 million (£266 million) cumulative provision, 211 million (£189 million) had been utilised by 31 December 2018.

Separately, in April 2016, the CBI notified UBI DAC that it was also commencing an investigation under its Administrative Sanctions Procedure into suspected breaches of the Consumer Protection Code 2006 during the period 4 August 2006 to 30 June 2008 in relation to certain customers who switched from tracker mortgages to fixed rate mortgages. This investigation is ongoing and UBI DAC continues to co-operate with the CBI.

As part of an internal review of the wider retail and commercial loan portfolios extending from the tracker mortgage examination programme, UBI DAC identified further legacy business issues. A programme is ongoing to identify and remediate impacted customers. RBS has made provisions totalling 167 million (£150 million) based on expected remediation and project costs of which 41 million (£37 million) had been utilised by 31 December 2018.

28 Analysis of the net investment in business interests and intangible assets

	2018	2017	2016
Acquisitions and disposals	£m	£m	£m
Fair value given for businesses acquired (1)	(113)	(131)	(87)
Additional investment in associates	(9)		
Net outflow of cash in respect of acquisitions	(122)	(131)	(87)
Net assets/(liabilities) sold		177	(400)
Non-cash consideration		(15)	(5)
Profit on disposal		155	22
Net cash and cash equivalents disposed			55
Net inflow/(outflow) of cash in respect of disposals		317	(328)
Dividends received from associates	5	(1)	9
Cash expenditure on intangible assets	(364)	(384)	(480)
Net (outflow)/inflow	(481)	(199)	(886)

Note:

(1) 2018 includes the purchase of Free agent.

29 Analysis of changes in financing during the year

	Share capi	tal, share pre	mium,			
	paid-in equity and merger reserve			Subordinated liabilities		
	2018 2017 2016		2018	2017	2016	
	£m	£m	£m	£m	£m	£m
At 1 January	27,791	52,979	50,577	12,722	19,419	19,847
Issue of ordinary shares	144	306	300			
Issue of Additional Tier 1 capital notes			2,046			
Redemption of paid-in equity		(720)	(110)			
Redemption of subordinated liabilities				(2,258)	(5,747)	(3,606)
Net cash (outflow)/inflow from financing	144	(414)	2,236	(2,258)	(5,747)	(3,606)
Transfer to retained earnings		(25,789)				
Ordinary shares issued in respect of employee share schemes	80	71	166			
Redemption of debt preference shares		748				
Other adjustments including foreign exchange		196		71	(950)	3,178
At 31 December	28,015	27,791	52,979	10,535	12,722	19,419

30 Analysis of cash and cash equivalents

	2018	2017	2016
At A. I.	£m	£m	£m
At 1 January			
- cash	98,337	88,414	94,832
- cash equivalents	24,268	10,156	8,760
	122,605	98,570	103,592
Net cash outflow	(13,794)	24,035	(5,022)
At 31 December	108,811	122,605	98,570
Comprising:			
Cash and balances at central banks	88,897	98,337	74,250
Treasury bills and debt securities	83	427	387
Net loans to banks	19,831	23,841	23,933
Cash and cash equivalents	108,811	122,605	98,570

Note:

(1) Includes cash collateral posted with bank counterparties in respect of derivative liabilities of £7,302 million (2017 - £6,883 million; 2016 - £6,661 million).

Certain members of RBS are required by law or regulation to maintain balances with the central banks in the jurisdictions in which they operate. These balances are set out below.

	2018	2017	2016
Bank of England	£0.9bn	£0.6bn	£0.5bn
De Nederlandsche Bank	0.1bn	0.1bn	0.4bn
31 Directors and key management remuneration			
		2018	2017
Directors remuneration		£000	£000
Non Executive Directors		2,001	1,747
Chairman and executive directors			
-emoluments		4,657	5,299
		6,658	7,046
Amounts receivable under long-term incentive plans and share option plans		•	1,225
Total		6,658	8,271

No directors accrued benefits under defined benefit schemes or money purchase schemes during 2018 and 2017.

The executive directors may participate in the company s long-term incentive plans, executive share option and sharesave schemes and details of their interests in the company s shares arising from their participation are given in the Directors remuneration report. Details of the remuneration received by each director are also given in the Directors remuneration report.

Compensation of key management

The aggregate remuneration of directors and other members of key management during the year was as follows:

	2018	2017
	£000	£000
Short-term benefits	20,316	19,019
Post-employment benefits	82	434
Share-based payments		3,558
	20,398	23,011

A new board and committee operating model was introduced in 2018 in order to align with UK ring-fencing requirements. The definition of key management has been revised and now comprises members of the RBSG and NWH Ltd Boards, members of the RBSG and NWH Ltd Executive Committees, and the Chief Executives of NatWest Markets Plc and RBS International. This is on the basis that these individuals have been identified as Persons Discharging Managerial Responsibilities (PDMRs) of RBSG under the new governance structure.

32 Transactions with directors and key management

At 31 December 2018, amounts outstanding in relation to transactions, arrangements and agreements entered into by authorised institutions in the Group, as defined in UK legislation, were £9,660 in respect of loans to five persons who were directors of the company at any time during the financial period.

For the purposes of IAS 24 Related Party Disclosures , key management comprise directors of the company and Persons Discharging Managerial Responsibilities (PDMRs) of RBSG under the new governance structure. The captions in the Group s primary financial statements include the following amounts attributable, in aggregate, to key management:

	2018	2017
	£000£	£000
Loans to customers	1,544	3,942
Customer deposits	31,361	23,619

Key management have banking relationships with Group entities which are entered into in the normal course of business and on substantially the same terms, including interest rates and security, as for comparable transactions with other persons of a similar standing or, where applicable, with other employees. These transactions did not involve more than the normal risk of repayment or present other unfavourable features.

33 Adoption of IFRS 9

The Group s accounting policies have significantly changed on the adoption of IFRS 9 Financial Instruments with effect from 1 January 2018. Prior years are re-presented but there has been no restatement of prior year data.

IFRS 9 changed the classification categories of financial assets from IAS 39. Held-for-trading assets were classified to mandatory fair value through profit or loss; loans and receivables were classified to amortised cost; and available-for-sale assets were classified as fair value through other comprehensive income unless they were deemed to be in a fair value business model or failed the contractual cash flow requirements under IFRS 9. There were no changes in the classification and measurement of financial liabilities.

Loans to customers of £2.1 billion were reclassified from loans and receivables under IAS 39 to fair value through profit or loss under IFRS 9. As a result, their carrying value increased by £583 million.

The net increase to loan impairments under IAS 39 was £616 million under the expected credit loss requirements of IFRS 9, including £85 million under provisions for contingent liabilities and commitments. This includes discontinued activities which is shown below on other assets and other liabilities

The impact on the Group's balance sheet at 1 January 2018 and the key movements in relation to the impact on classification and measurement, expected credit losses and tax are as follow:

	Changes to presentation				IFRS		
		eld-for-trading					
	31			30			
	December	exported to		December C			1 January
	2017	trading	New	2017	&	credit	2018
		ssets/liabilities p					Tax (IFRS 9)
	£m	£m	£m	£m	£m	£m	£m £m
Assets							
Cash and balances at central banks	98,337			98,337		(1)	98,336
Trading assets		85,991		85,991			85,991
Derivatives			160,843	160,843			160,843
Settlement balances			2,517	2,517			2,517
Loans and advances to banks	30,251	(18,734)	(11,517)				
Loans to banks - amortised cost			11,517	11,517		(3)	11,514
Loans and advances to customers	349,919	(39,747)	(310,172)				
Loans to customers - amortised cost			310,116	310,116	(2,191)	(524)	307,401
Debt securities	78,933	(27,481)	(51,452)				
Equity shares	450	(29)	(421)				

Other financial assets			51,929	51,929	2,752	(3)	54,678
Settlement balances	2,517		(2,517)			. ,	
Derivatives	160,843		(160,843)				
Intangible assets	6,543			6,543			6,543
Property, plant and equipment	4,602		(4,602)				
Deferred tax	1,740		(1,740)				
Assets of disposal groups	195		(195)				
Other assets	3,726		6,537	10,263			25 10,288
Total assets	738,056			738,056	561	(531)	25 738,111
Liabilities							
Deposits by banks	46,898	(16,502)	(30,396)				
Bank deposits			30,396	30,396			30,396
Customer accounts	398,036	(36,720)	(361,316)				
Customer deposits			361,316	361,316			361,316
Debt securities in issue	30,559	(233)	(30,326)				
Settlement balances	2,844			2,844			2,844
Trading liabilities		81,982		81,982			81,982
Short positions	28,527	(28,527)					
Derivatives	154,506			154,506			154,506
Other financial liabilities			30,326	30,326			30,326
Subordinated liabilities	12,722			12,722			12,722
Other liabilities	14,871			14,871		85	41 14,997
Total liabilities	688,963			688,963		85	41 689,089
Total equity	49,093			49,093	561	(616)	(16) 49,022
Total liabilities and equity	738,056			738,056	561	(531)	25 738,111

33 Adoption of IFRS 9 continued

The table below reflects the impact of IFRS 9 on total equity:

	£m
At 31 December 2017 - under IAS 39	49,093
Classification & measurement	561
- Mandatory fair value through profit or loss assets - adjustments following business model reviews (SPPI) (1)	579
- Equity shares held at cost under IAS 39 - fair value adjustments through FVOCI reserve	48
- Additional write-down of amortised cost assets	(66)
Expected credit losses	(616)
- Amortised cost assets	(531)
- Contingent liabilities and commitments	(85)
Tax	(16)
At 1 January 2018 - under IFRS on transition to IFRS 9	49,022

Note:

(1) Includes £583 million credit in relation to loans to customers and £4 million debit in relation to debt securities.

34 Related parties

UK Government

On 1 December 2008, the UK Government through HM Treasury became the ultimate controlling party of The Royal Bank of Scotland Group plc. The UK Government s shareholding is managed by UK Government Investments Limited, a company wholly owned by the UK Government. As a result, the UK Government and UK Government controlled bodies became related parties of the Group.

The Group enters into transactions with many of these bodies on an arm s length basis. Transactions include the payment of: taxes principally UK corporation tax (Note 7) and value added tax; national insurance contributions; local authority rates; and regulatory fees and levies (including the bank levy (Note 3) and FSCS levies (Note 27) together with banking transactions such as loans and deposits undertaken in the normal course of banker-customer relationships.

Bank of England facilities

The Group may participate in a number of schemes operated by the Bank of England in the normal course of business.

Total

Members of the Group that are UK authorised institutions are required to maintain non-interest bearing (cash ratio) deposits with the Bank of England amounting to 0.296% of their average eligible liabilities in excess of £600 million. They also have access to Bank of England reserve accounts: sterling current accounts that earn interest at the Bank of England Rate.

Other related parties

- (a) In their roles as providers of finance, RBS companies provide development and other types of capital support to businesses. These investments are made in the normal course of business and on arm s length terms. In some instances, the investment may extend to ownership or control over 20% or more of the voting rights of the investee company. However, these investments are not considered to give rise to transactions of a materiality requiring disclosure under IAS 24.
- (b) RBS recharges The Royal Bank of Scotland Group Pension Fund with the cost of administration services incurred by it. The amounts involved are not material to the Group.
- (c) In accordance with IAS 24, transactions or balances between RBS entities that have been eliminated on consolidation are not reported.
- (d) The captions in the primary financial statements of the parent company include amounts attributable to subsidiaries. These amounts have been disclosed in aggregate in the relevant notes to the financial statements.

35 Post balance sheet events

On 6 February 2019, a General Meeting of shareholders authorised the directors to agree buy-backs by the company of ordinary shares from HM Treasury. The authority is subject to renewal at the company s forthcoming Annual General Meeting.

Other than this there have been no other significant events between 31 December 2018 and the date of approval of these accounts which would require a change to or additional disclosure in the accounts.

36 Consolidating financial information

NatWest Markets Plc (NWM Plc) (formerly RBS plc, renamed in 2018) is a wholly owned subsidiary of The Royal Bank of Scotland Group plc (RBSG plc) and was able to offer and sell certain securities in the US from time to time pursuant to a registration statement on Form F-3 filed with the SEC with a full and unconditional guarantee from RBSG plc.

NWM Plc utilises an exception provided in Rule 3-10 of Regulation S-X, and therefore does not file its financial statements with the SEC. In accordance with the requirements to qualify for the exception, presented below is condensed consolidating financial information for:

- RBSG plc on a stand-alone basis as guarantor;
- NWM Plc on a stand-alone basis as issuer;
- Non-guarantor Subsidiaries of RBSG plc and NWM Plc on a combined basis (Subsidiaries);
- Consolidation adjustments; and
- RBSG plc consolidated amounts (RBS Group).

Under IAS 27, RBSG plc and NWM Plc account for investments in their subsidiary undertakings at cost less impairment. Rule 3-10 of Regulation S-X requires a company to account for its investments in subsidiary undertakings using the equity method, which would decrease the results for the period of RBSG plc and increase the results for the period of NWM Plc in the information below by £811 million and £1,546 million respectively for the year ended 31 December 2018 (increase by £92 million and £934 million respectively for the year ended 31 December 2017; increase by £142 million and decrease by £1,316 million respectively for the year ended 31 December 2016).

The net assets of RBSG plc would be decreased and NWM Plc increased in the information below by £8,651 million and £165 million respectively at 31 December 2018 (decreased £6,631 million and £9,319 million respectively at 31 December 2017).

NWM Plc Disposal groups and discontinued operations

NatWest Holdings Limited (NatWest Holdings)

The transfer of the NWM Plc UK Personal Banking (UK PB), Ulster Bank Rol, Commercial & Private Banking (CPB) and certain parts of Central items and NatWest Markets, included in the ring-fenced bank, to subsidiaries of NatWest Holdings, was completed in 2018. It was followed by the transfer of NatWest Holdings to RBSG plc. Accordingly, all of the NWM Plc activities now undertaken by NatWest Holdings and its subsidiaries were classified as disposal groups in the NWM Plc accounts at 31 December 2017 and presented as discontinued operations until business transferred in 2018, with comparatives re-presented.

36 Consolidating financial information continued

Income statement

			(Consolidation	
	RBSG plc	NWM Plc S	Subsidiaries	adjustments	RBS Group
For the year ended 31 December 2018	£m	£m	£m	£m	£m
Net interest income	(368)	(239)	8,028	1,235	8,656
Non-interest income	2,794	1,002	3,740	(2,790)	4,746
Total income	2,426	763	11,768	(1,555)	13,402
Operating expenses	(85)	(1,262)	(6,855)	(1,443)	(9,645)
Impairment releases/(losses)	1	89	(429)	(59)	(398)
Operating profit/(loss) before tax	2,342	(410)	4,484	(3,057)	3,359
Tax	149	51	(1,322)	(86)	(1,208)
Profit/(loss) from continuing operations	2,491	(359)	3,162	(3,143)	2,151
Profit/(loss) from discontinued operations, net of tax		54		(54)	
Profit/(loss) for the year	2,491	(305)	3,162	(3,197)	2,151
Attributable to:					
Non-controlling interests			(38)	30	(8)
Preference shareholders	182		()		182
Paid-in equity holders	355				355
Ordinary shareholders	1,954	(305)	3,200	(3,227)	1,622
•	2,491	(305)	3,162	(3,197)	2,151

Statement of comprehensive income

For the year ended 31 December 2018 Profit/(loss) for the year Items that do not qualify for reclassification Remeasurement of retirement benefit schemes	RBSG plc £m 2,491	NWM Plc £m (305)		Consolidation adjustments £m (3,197)	RBS Group £m 2,151
- contributions in preparation for ring-fencing (1) - other movements Profit on fair value of credit in financial liabilities designated at		(53) (9)	(2,000) 95		(2,053) 86
fair value through profit or loss due to own credit risk Fair value through other comprehensive income (FVOCI)		121	79	(0)	200
financial assets Tax		22 (24) 57	28 526 (1,272)	(2)	48 502 (1,217)
Items that do qualify for reclassification Fair value through other comprehensive income (FVOCI) financial assets		(339)	808	(462)	7

Cash flow hedges Currency translation	78	223 168	(550) (2,488)	(332) 2.630	(581) 310
Tax	(15)	36	40	128	189
	63	88	(2,190)	1,964	(75)
Other comprehensive income/(loss) after tax	63	145	(3,462)	1,962	(1,292)
Total comprehensive income/(loss) for the year	2,554	(160)	(300)	(1,235)	859
Total comprehensive income/(loss) is attributable to:					
Non-controlling interests			(103)	120	17
Preference shareholders	182				182
Paid-in equity holders	355				355
Ordinary shareholders	2,017	(160)	(197)	(1,355)	305
	2,554	(160)	(300)	(1,235)	859

Note:

⁽¹⁾ On 17 April 2018 RBS agreed a Memorandum of Understanding (MoU) with the Trustees of the RBS Group Pension Fund in connection with the requirements of ring-fencing. NatWest Markets Plc cannot continue to be a participant in the Main section and separate arrangements are required for its employees. Under the MoU NatWest Bank made a contribution of £2 billion on 9 October 2018 to strengthen funding of the Main section in recognition of the changes in convenant. Also under the MoU, NatWest Markets Plc is required to make a £53 million contribution to the NWM section in Q1 2019.

36 Consolidating financial information continued

Income statement

			(Consolidation	
	RBSG plc	NWM Plc 5	Subsidiaries	adjustments	RBS Group
For the year ended 31 December 2017	£m	£m	£m	£m	£m
Net interest income	203	(26)	6,157	2,653	8,987
Non-interest income	1,390	909	(674)	2,521	4,146
Total income	1,593	883	5,483	5,174	13,133
Operating expenses	(122)	(1,601)	(3,946)	(4,732)	(10,401)
Impairment releases/(losses)		77	(370)	(200)	(493)
Operating profit/(loss) before tax	1,471	(641)	1,167	242	2,239
Tax	(94)	168	(853)	48	(731)
Profit/(loss) from continuing operations	1,377	(473)	314	290	1,508
(Loss)/profit from discontinued operations, net of tax		(510)		510	
Profit/(loss) for the year	1,377	(983)	314	800	1,508
Attails stale la tas					
Attributable to:			_	00	0.5
Non-controlling interests	00.4		5	30	35
Preference shareholders	234				234
Paid-in equity holders	483	(000)	000	4	487
Ordinary shareholders	660	(983)	309	766	752
	1,377	(983)	314	800	1,508

Statement of comprehensive income

		Consolidation			
	RBSG plc	NWM Plc	Subsidiaries	adjustments	RBS Group
For the year ended 31 December 2017	£m	£m	£m	£m	£m
Profit/(loss)for the year	1,377	(983)	314	800	1,508
Items that do not qualify for reclassification					
Profit on remeasurement of retirement benefit schemes		4	86		90
Loss on fair value of credit in financial liabilities designated at					
fair value through profit or loss due to own credit risk		(68)	(58)		(126)
Tax		(18)	8		(10)
		(82)	36		(46)
Items that do qualify for reclassification					
Available-for-sale financial assets		52	(341)	315	26
Cash flow hedges	(204)	(424)	(24)	(417)	(1,069)
Currency translation		(22)	495	(373)	100
Tax	38	93	20	105	256
	(166)	(301)	150	(370)	(687)
Other comprehensive (loss)/income after tax	(166)	(383)	186	(370)	(733)

Total comprehensive income/(loss) for the year	1,211	(1,366)	500	430	775
Total comprehensive income/(loss) is attributable to:				F0	5 0
Non-controlling interests Preference shareholders	234			52	234
Paid-in equity holders	483			1	487
Ordinary shareholders	494	(1,366)	500	374	2
ordinary shareholders	1,211	(1,366)	500	430	775

36 Consolidating financial information continued

Income statement

				Consolidation	
	RBSG plc	NWM Plc	Subsidiaries	adjustments	RBS Group
For the year ended 31 December 2016	£m	£m	£m	£m	£m
Net interest income	267	4	6,050	2,387	8,708
Non-interest income	(4,945)	1,066	(5,099)	12,860	3,882
Total income	(4,678)	1,070	951	15,247	12,590
Operating expenses	(738)	(3,864)	(5,911)	(5,681)	(16,194)
Impairment releases/(losses)		73	(4)	(547)	(478)
Operating (loss)/profit before tax	(5,416)	(2,721)	(4,964)	9,019	(4,082)
Tax	66	(199)	(827)	(147)	(1,107)
(Loss)/profit from continuing operations	(5,350)	(2,920)	(5,791)	8,872	(5,189)
(Loss)/profit from discontinued operations, net of tax		(531)		531	
(Loss)/profit for the year	(5,350)	(3,451)	(5,791)	9,403	(5,189)
Attributable to:					
Non-controlling interests			5	5	10
Preference shareholders	260	23		(23)	260
Paid-in equity holders	294			9	303
Dividend access share	1,193				1,193
Ordinary shareholders	(7,097)	(3,474)	(5,796)	9,412	(6,955)
	(5,350)	(3,451)	(5,791)	9,403	(5,189)

Statement of comprehensive income

		Consolidation				
	RBSG plc	NWM Plc	Subsidiaries	adjustments	RBS Group	
For the year ended 31 December 2016	£m	£m	£m	£m	£m	
(Loss)/profit for the year	(5,350)	(3,451)	(5,791)	9,403	(5,189)	
Items that do not qualify for reclassification						
Profit/(loss) on remeasurement of retirement benefit schemes		63	(1,112)		(1,049)	
Tax		(21)	309		288	
		42	(803)		(761)	
Items that do qualify for reclassification						
Available-for-sale financial assets		(61)	293	(326)	(94)	
Cash flow hedges	189	(40)	1	615	765	
Currency translation		(90)	709	644	1,263	
Tax	(35)	28	50	(149)	(106)	
	154	(163)	1,053	784	1,828	
Other comprehensive income/(loss) after tax	154	(121)	250	784	1,067	
Total comprehensive (loss)/income for the year	(5,196)	(3,572)	(5,541)	10,187	(4,122)	

Total comprehensive (loss)/income is attributable to:					
Non-controlling interests			87	34	121
Preference shareholders	260	23		(23)	260
Paid-in equity holders	294			9	303
Dividend access share	1,193				1,193
Ordinary shareholders	(6,943)	(3,595)	(5,628)	10,167	(5,999)
	(5,196)	(3,572)	(5,541)	10,187	(4,122)

36 Consolidating financial information continued

Balance sheet

				Consolidation	
A1.04 Passaultan 0040	RBSG plc			adjustments	
At 31 December 2018	£m	£m	£m	£m	£m
Assets Cash and balances at central banks		11,095	77,802		88.897
Trading assets		61,990	13,228	(99)	75,119
Derivatives	543	134,291	3,710	(5,195)	133,349
Settlement balances	0-10	1,421	1,507	(0,100)	2,928
Loans to banks - amortised cost		454	12,527	(34)	12.947
Loans to customers - amortised cost		7,908	297,200	(19)	305,089
Amount due from holding company and fellow subsidiaries	22,791	11,800	70,638	(105,229)	,
Other financial assets	241	10,995	48,481	(232)	59,485
Intangible assets		-	6,314	`302 [´]	6,616
Other assets	56,773	2,087	10,968	(60,023)	9,805
Total assets	80,348	242,041	542,375	(170,529)	694,235
Liabilities					
Bank deposits		2,777	20,596	(76)	23,297
Customer deposits	005	2,390	358,531	(7)	360,914
Amount due to holding company and fellow subsidiaries	635	23,505	80,933	(105,073)	0.000
Settlement balances		1,977	1,089	(00)	3,066
Trading liabilities	445	54,540	17,909	(99)	72,350
Derivatives Other financial liabilities	_	129,974	3,655	(5,177) 7	128,897
Subordinated liabilities	16,821 7,941	16,279 659	6,625 2,058	(123)	39,732 10,535
Other liabilities	119	1,018	2,036 8,552	(735)	8,954
Total liabilities	25,961	233,119	499,948	(111,283)	647,745
Total liabilities	23,301	200,110	433,340	(111,200)	047,743
Owners equity	54,387	8,922	42,416	(59,989)	45,736
Non-controlling interests	- ,	-,-	11	743	754
Total equity	54,387	8,922	42,427	(59,246)	46,490
Total liabilities and equity	80,348	242,041	542,375	(170,529)	694,235
	•	•	-	,	•

36 Consolidating financial information continued

Balance sheet

				Consolidation	
	RBSG plc		Subsidiaries	adjustments	
At 31 December 2017	£m	£m	£m	£m	£m
Assets		0.0	00.707	04 507	00.007
Cash and balances at central banks		93	36,707	61,537	98,337
Trading assets	100	73,011	13,051	(71)	85,991
Derivatives Control of the land of the lan	163	162,005	3,101	(4,426)	160,843
Settlement balances		1,614	899	4	2,517
Loans to banks - amortised cost		195	5,181	6,141	11,517
Loans to customers - amortised cost	04.007	9,133	223,755	77,228	310,116
Amounts due from holding company and fellow subsidiaries	24,987	6,470	14,352	(45,809)	E4 000
Other financial assets	107	3,079	4,350	44,393	51,929
Intangible assets	47.005	070.000	531	6,012	6,543
Other assets	47,605	270,289	(33,032)	(274,599)	10,263
Total assets	72,862	525,889	268,895	(129,590)	738,056
Liabilities					
Bank deposits		527	22,367	7,502	30,396
Customer deposits		3,063	274,847	83,406	361,316
Amounts due to holding company and fellow subsidiaries	163	14,994	30,652	(45,809)	001,010
Settlement balances		1,372	1,472	(10,000)	2,844
Trading liabilities		64,182	17,913	(113)	81,982
Derivatives	284	155,098	3,289	(4,165)	154,506
Other financial liabilities	9,202	11,255	1.243	8.626	30.326
Subordinated liabilities	7,864	,	2,197	2,661	12,722
Other liabilities	388	230,876	(110,598)	(105,795)	14,871
Total liabilities	17,901	481,367	243,382	(53,687)	688,963
	,	,	_ , , , , , ,	(00,001)	000,000
Owners equity	54,961	44,522	25,382	(76,535)	48,330
Non-controlling interests			131	632	763
Total equity	54,961	44,522	25,513	(75,903)	49,093
Total liabilities and equity	72,862	525,889	268,895	(129,590)	738,056

36 Consolidating financial information continued

Cash flow statement

For the year ended 31 December 2018 Net cash flows from operating activities Net cash flows from investing activities Net cash flows from financing activities Effects of exchange rate changes on cash and cash equivalents Net increase/(decrease) in cash and cash equivalents Cash and cash equivalents at 1 January 2018 Cash and cash equivalents at 31 December 2018	RBSG plc £m 13,711 (9,481) (4,169) 1 62 245 307	NWM Plc £m (1,308) 18,288 (5,795) 332 11,517 13,058 24,575		Consolidation adjustments £m 68,478 15,684 (4,311) (222) 79,629 (86,912) (7,283)	RBS Group £m (228) (7,955) (6,287) 676 (13,794) 122,605 108,811
				0 "1"	
	DDCC pla	NIMM DIO		Consolidation	DDC Croup
For the year ended 31 December 2017	RBSG plc £m	£m	£m	adjustments £m	RBS Group £m
Net cash flows from operating activities	4,973	(74,357)	105,401	2,724	38,741
Net cash flows from investing activities	(2,078)	(2,077)	1,911	(4,238)	(6,482)
Net cash flows from financing activities	(3,831)	(9,668)	573	4,718	(8,208)
Effects of exchange rate changes on cash and cash equivalents	(14)	87	(1,102)	1,013	(16)
Net (decrease)/increase in cash and cash equivalents	(950)	(86,015)	106,783	4,217	24,035
Cash and cash equivalents at 1 January 2017	1,195	99,073	89,431	(91,129)	98,570
Cash and cash equivalents at 31 December 2017	245	13,058	196,214	(86,912)	122,605
	DDOO ala	NINA/NA FOL-		Consolidation	DDO O
For the year ended 31 December 2016	RBSG plc £m	NWW PIC	Subsidiaries	adjustments £m	RBS Group £m
Net cash flows from operating activities	(3,026)	3,098	(6,823)	3,101	(3,650)
Net cash flows from investing activities	2,538	(4,495)	(1,919)	(483)	(4,359)
Net cash flows from financing activities	(1,445)	(13,459)	(1,490)	11,287	(5,107)
Effects of exchange rate changes on cash and cash equivalents	122	7,316	4,260	(3,604)	8,094
Net (decrease)/increase in cash and cash equivalents	(1,811)	(7,540)	(5,972)	10,301	(5,022)
Cash and cash equivalents at 1 January 2016	3,006	106,613	95,403	(101,430)	103,592
Cash and cash equivalents at 31 December 2016	1,195	99,073	89,431	(91,129)	98,570

Trust preferred securities

The Group has issued trust preferred securities through trusts 100% owned by the Group (through partnership interests held by RBSG Capital Corporation and RBS) which meet the definition of a finance subsidiary in Regulation S-X, Rule 3-10. The securities represent undivided beneficial interests in the assets of the trusts, which consist of partnership preferred securities representing non-cumulative perpetual preferred limited partnership interests issued by Delaware limited partnerships. The Royal Bank of Scotland Group plc has provided subordinated guarantees for the

benefit of the holders of the trust preferred securities and the partnership preferred securities. Under the terms of the guarantees, the Group has fully and unconditionally guaranteed on a subordinated basis, payments on such trust preferred securities and partnership preferred securities, to the extent they are due to be paid and have not been paid by, or on behalf of, the trusts and the partnerships, as the case may be. Following implementation of IFRS 10 the trusts are no longer consolidated by the Group. For those securities that were classified as subordinated liabilities, the Group is outstanding instruments with the trusts are classified as subordinated liabilities.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Consent of independent registered public accounting firm (Ernst & Young LLP)
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Scheme
101.CAL	XBRL Taxonomy Extension Scheme Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Scheme Definition Linkbase
101.LAB	XBRL Taxonomy Extension Scheme Label Linkbase
101.PRE	XBRL Taxonomy Extension Scheme Presentation Linkbase

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on it behalf by the undersigned, thereunto duly authorised
The Royal Bank of Scotland Group plc
Registrant
/s/ Katie Murray
Katie Murray
Chief Financial Officer
30 April 2019