Company Registered Number: R0000733

ULSTER BANK LIMITED

ANNUAL REPORT AND ACCOUNTS

31 December 2018

Contents

Board of directors and secretary

Chairman
Howard Davies
Nominations (Chairman)

Executive directors
Ross McEwan
Executive (Chairman)

Katie Murray (appointed 1 January 2019)
Executive

Alison Rose-Slade (appointed 3 December 2018)
Executive

Independent non-executive directors
Francesca Barnes (appointed 1 May 2018)

Graham Beale (appointed 1 May 2018)
Audit, Nominations, Risk

Ian Cormack (appointed 1 May 2018)
Audit, Remuneration, Risk

Alison Davis
Remuneration

Patrick Flynn (appointed 1 June 2018)
Audit (Chairman), Risk

Morten Friis
Audit, Risk

Robert Gillespie
Remuneration (Chairman), Nominations, Risk

Yasmin Jetha
Remuneration

Baroness Noakes
Risk (Chairman), Audit, Nominations

Mike Rogers
Remuneration

Mark Seligman
Audit, Nominations, Remuneration

Dr Lena Wilson (appointed 1 January 2018)

Key:

Audit	member of the Audit Committee
Executive	member of the Executive Committee
Nominations	member of the Nominations Committee
Remuneration	member of the Performance and Remuneration Committee
Risk	member of the Board Risk Committee

For additional detail on the activities of the Committees above, refer to the Report of the Directors.

Chief Governance Officer and Board Counsel
Aileen Taylor (Company Secretary)

Other Board changes in 2018
The following executive director resigned on 30 September 2018
Ewen Stevenson

The following non-executive directors resigned during the year
Sandy Crombie (resigned 1 January 2018)
Franck Dangeard (resigned 30 April 2018)
Penny Hughes (resigned 30 May 2018)
Brendan Nelson (resigned 31 December 2018)

Auditors
Ernst & Young
Chartered Accountants and Statutory Auditor
Ernst & Young Building
Harcourt Centre
Harcourt Street
Dublin 2 D02 YA40

Registered office and Head office
11-16 Donegall Square East
Belfast BT1 5UB

Ulster Bank Limited
Registered in Northern Ireland No. R0000733

Strategic report

Presentation of information

Ulster Bank Limited ('UBL' or 'the Bank') is a wholly-owned subsidiary of National Westminster Bank Plc ('NatWest Bank'). NatWest Bank is in turn a wholly-owned subsidiary of NatWest Holdings Limited ('NatWest Holdings'). The ultimate holding company is The Royal Bank of Scotland Group plc ('RBSG' or the 'ultimate holding company'). 'RBS Group' or 'the Group' refers to the ultimate holding company and its subsidiary and associated undertakings.

The Bank publishes its financial statements in pounds sterling ('£' or 'sterling'). The abbreviation '£m' represents millions of pounds sterling and the abbreviation '£k' represents thousands of pounds sterling. The abbreviation '€' represents 'euros'.

The directors of the Bank present their strategic and directors' reports, together with audited financial statements of the Bank for the financial year ended 31 December 2018. The financial statements are prepared in accordance with International Financial Reporting Standards, as adopted by the European Union (EU).

Principal activities

The Bank operating under the Ulster Bank brand provides a comprehensive range of financial services through its Personal & Business Banking (PBB) and Commercial & Private Banking (CPB) divisions. PBB serves individuals and mass affluent customers together with small businesses through the Bank's network of branches and direct channels, including the internet, mobile and telephony. CPB provides services to corporate and commercial customers.

Business review

The Bank's core ambition is to be the number one bank for customer service, trust and advocacy in its market. In working towards this ambition, the Bank is focused on building lasting relationships with customers and digital and technological innovation that creates value for customers and in turn operational efficiency for the Bank.

In 2018 through the 'Help for What Matters' initiative, the Bank continued to play an active and leading role in supporting personal and business customers across Northern Ireland in achieving their ambitions.

In PBB new mortgage lending remained strong with the Bank helping over 1,600 customers with their home buying and ownership needs. During 2018, the Bank became the first in Northern Ireland to offer an end-to-end paperless mortgage process through the launch of its DigiDocs feature. This secure platform provides a safe and convenient means for customers to apply for mortgage products, whilst simultaneously resulting in a significant reduction in the use of paper. The digital portal also allows eligible customers applying online for current accounts or personal loans to submit ID verification documents without having to visit a branch.

During 2018, Business Banking generated growth in new business written of 27% over that achieved in 2017.

The Business Banking team manages small business customers who typically have turnover of up to £2 million or aggregated debt of up to £500k. Customers have access to a comprehensive range of banking options including online and mobile banking, telephony services, full access to the branch network and face-to-face access to a Business Manager for higher value transactions.

The Bank's Boost programme ran throughout 2018. The initiative provides support, guidance and opportunities to generate collaborative partnerships to local businesses and entrepreneurs. During the year there were 39 Boost-focused events held throughout the region covering a range of topics including GDPR, digital marketing, tax going digital and employee mental health and wellbeing. Additionally, the programme facilitated 24 events for organisations like Social Enterprise NI and Women in Business NI.

In CPB, new lending also grew in 2018, with an increase of 15% over that achieved in 2017. New lending activity was particularly strong in the manufacturing and food and consumer goods sectors, as well as to housing associations. The Bank entered its tenth year as the principal sponsor of the Balmoral Show, emphasising the strategic importance placed on supporting the agri-food sector in Northern Ireland. The Bank also partnered with the Northern Ireland Chamber of Commerce and Industry in supporting its 'Learn Grow Excel' initiative. The initiative saw local companies participate in a series of near market trade visits to Great Britain to explore potential business opportunities.

The Bank continued to invest significantly in strengthening its digital proposition, in particular enhancing and optimising its mobile capabilities. During 2018, 61% of the Bank's customer base were 'digitally active', including over 200,000 customers using the mobile app. A number of new features were introduced to the app in 2018, including the ability for customers with Ulster Bank MasterCard credit cards to temporarily freeze their card if it is misplaced. These customers can also view real-time balance updates as well as access a budgeting feature to create a personal credit card budget. Cora, a digital assistant powered by artificial intelligence, is available to customers on a 24/7 basis through the 'Message us' feature in the app.

The significant developments in the Bank's digital proposition reflect ongoing trends in customer behaviour evidenced by a reduction in use of the traditional branch network. As a result the Bank, following an announcement in 2017, closed 11 branches in Northern Ireland. The Bank's enhanced digital offerings are complemented by a comprehensive geographical presence in order to meet all customers' needs. Unique in Northern Ireland to Ulster Bank, a team of Community Bankers and a Mobile Bank or "bank on wheels" provide convenient in-person banking services across the country. The team of four Community Bankers provides support to both individuals and community groups, as well as partnering with the local branch network to deliver "digital days" covering the use of technology to make banking safer, easier and more convenient.

Business review continued

They focus particularly on more rural areas impacted by the restructure of the branch network. The Wi-Fi-enabled Mobile Bank regularly serves 17 communities across Northern Ireland.

The Bank outlined its ongoing commitment to supporting Northern Ireland businesses with the launch in February of the Entrepreneur Accelerator hub, an in-house version of the previous Entrepreneurial Spark initiative. In doing so the Bank was the first in Northern Ireland to establish a dedicated team focused on entrepreneurial development. The Northern Ireland hub, together with other hubs in the RBS Group, represents the UK's largest fully-funded business accelerator network. Entrepreneurs are provided with free office space, facilities and access to the Bank's comprehensive programme of mentoring, insight and coaching, specifically designed to meet the needs of entrepreneurs who want to grow and scale their business.

In November, the Bank further demonstrated its long-term commitment to supporting Northern Ireland's entrepreneurial community by investing £400k to develop and relocate the Entrepreneur Accelerator hub to a state of the art facility based in the Bank's Belfast Head Office.

The Bank continued with its strong corporate social responsibility (CSR) agenda and holds "CORE (NI)" status, an accreditation awarded by Business in the Community NI, recognising the Bank's commitment to integrating corporate responsibility into the way it does business. The Bank raised over £105k for its charity partners in Northern Ireland through its "Do Good Feel Good" initiatives in June including partnering with Aware NI, a charity that supports those with depression. The Skills and Opportunities Fund made available grants of up to £35k to social enterprise initiatives in communities across Northern Ireland. During 2018 the Bank partnered with National Trading Standards and facilitated 'Friends against Scams' training for over 1,600 of its customers, raising awareness of how they can best protect themselves from becoming victim of a scam.

MoneySense, the Bank's financial education programme for primary and secondary level students, has enjoyed continued success with multiple workshops held across the country, presented by volunteer staff from the Bank.

The Bank has established a set of key performance indicators (KPIs) to track its performance towards its objectives.

	2018	2017
Net interest margin(1)	1.35%	1.23%
Cost: income ratio	75%	81%
CET1 ratio	15.2%	16.2%
Digitally active customers(2)	61%	55%

Notes:

(1) Net interest margin is calculated on loans to customers and banks including amounts due from holding companies and fellow subsidiaries.

(2) A customer is considered digitally active if they have used online or mobile banking in the preceding 90 days.

The drivers of the changes in the financial ratios are discussed further in the financial performance section of this report.

Financial performance

The Bank's financial performance is presented in the income statement on page 14. The Bank reported a total profit after tax for the financial year of £47 million (2017 - £39 million).

Net interest income

Net interest income increased by £10 million to £144 million due to the impact of uplifts in the Bank of England base rate and a reduction in the interest payable on subordinated liabilities as a result of the December 2017 redemption of Sterling (£100 million) and Euro denominated (€860 million) debt. The impact of additional interest payable on customer accounts arising from the deposit rate offers introduced in the second half of 2017 and continuing throughout 2018 was offset by interest receivable on placement of the funds raised with other Group subsidiaries with no overall impact on net interest income.

Non-interest income

A £9 million reduction to £91 million was primarily due to a reduction in hedging income which was elevated in 2017 as a result of updating the Bank's interest rate swap profile subsequent to the sale of the Republic of Ireland operations.

Operating expenses

Operating expenses decreased by £3 million largely due to a £7 million decrease in staff costs relating to reduced headcount and restructuring provisions and a £6 million decrease in premises and equipment costs as a result of the reduced impact from the branch network restructuring costs, partially offset by an £11 million increase in the cost of services provided to the Bank by other RBS Group companies, including investment in technology.

Impairment

The impairment loss of £6 million under IFRS 9 represents a £12 million adverse movement from the £6 million gain in 2017 recognised under IAS 39. As permitted by IFRS 9, prior year figures have not been restated and consequently are not directly comparable. The 2017 gain was driven by improved residential and commercial property market conditions increasing collateral values and proactive debt management. The 2018 charge primarily reflects a small increase in the mortgage impairment charge.

Tax

The Bank incurred a tax charge in 2018 of £6 million (2017 - £22 million). The £16 million reduction reflects a deferred tax credit in respect of previously unrecognised losses and an additional charge in 2017 relating to an under provision in respect of prior periods.

Return on assets

At the year end the total assets of the Bank were £11,641 million (2017 - £11,987 million). Return on total assets for 2018 was 0.5% (2017 - 0.5%).

Capital ratios

The Bank's capital position remained strong during 2018. Its CET1 ratio of 15.2% (2017 - 16.2%) remained significantly above the regulatory minimum.

Outlook

The Bank remains vulnerable to changes and uncertainty in the external economic and political environment, which have continued to intensify in the past year. Scenarios identified as having a potentially material negative impact on the Bank include: the impact of Brexit; continued political uncertainty in Northern Ireland; a UK recession including significant falls in house prices; global financial market volatility linked to advanced economy interest rate increases or decreases; a protracted period of low interest rates in the UK; vulnerabilities in emerging market economies resulting in contagion in the local market; and major geopolitical instability.

Uncertainties surrounding the UK's withdrawal from the European Union

Following the EU Referendum in June 2016, and pursuant to the exit process triggered under Article 50 of the Treaty on the European Union in March 2017, the UK is scheduled to leave the EU on 29 March 2019. The terms of a Brexit withdrawal agreement negotiated by the UK Government were decisively voted against by Parliament on 15 January 2019. The UK Government and Parliament is currently actively engaged in seeking to determine the terms of this departure, including any transition period, and the resulting economic, trading and legal relationships with both the EU and other counterparties currently remain unclear and subject to significant uncertainty.

As it currently stands, EU membership and all associated treaties will cease to apply at 23:00 on 29 March 2019, unless some form of transitional arrangement encompassing those associated treaties is agreed or there is unanimous agreement amongst the UK, other EU member states and the European Commission to extend the negotiation period.

The direct and indirect effects of the UK's exit from the EU and the European Economic Area ('EEA') are expected to affect aspects of the Bank's business and operating environment and may be material and/or cause a near-term impact on impairment. The longer term effects of Brexit on the Bank's operating environment are difficult to predict, and are subject to wider global macro-economic trends and events, but may significantly impact the Bank and its customers and counterparties who are themselves dependent on trading with, or personnel from, the Republic of Ireland and the wider EU and may result in or be exacerbated by periodic financial volatility and slower economic growth, in Northern Ireland and the wider UK in particular, but also in the Republic of Ireland, Europe and potentially the global economy.

The consensus view on Brexit suggests a weaker Northern Ireland economy in the short to medium term. With the current high level of household debt, any increases in unemployment and interest rates present a threat to retail impairment rates. In wholesale portfolios any further softening of regional GDP growth would be expected to impact credit losses negatively.

Significant uncertainty exists as to the respective legal and regulatory arrangements under which the Bank will operate when the UK is no longer a member of the EU. The legal and political uncertainty and any actions taken as a result of this uncertainty, as well as new or amended rules, could have a significant impact on the Bank's operations, including attendant restructuring costs, level of impairments, capital requirements, regulatory environment and tax implications and as a result may adversely affect the Bank's profitability, competitive position, viability, business model and product offering.

The RBS Group is implementing plans designed to continue its (and the Bank's) ability to clear euro payments in the event that there is an immediate loss of access to the European Single Market on 29 March 2019 (or any alternative date) with no alternative arrangement for continuation of such activities under current rules (also known as 'Hard Brexit').

To ensure continued ability to clear euro denominated payments, the Group is finalising a third-country licence for the Frankfurt branch of NatWest Bank with the German regulator. In addition, the Group is working to satisfy the conditions of the Deutsche Bundesbank (DBB), for, among other things, access to SEPA, Euro 1 and Target 2 clearing and settlement mechanisms. Satisfying these DBB and accessing SEPA, Euro 1 and Target 2 conditions will allow the Group to continue to clear cross border payments in euros, which is a fundamental requirement for the daily operations and customers of all Group franchises, including Ulster Bank. A draft license has recently been issued for NatWest Bank which the Group intends to finalise imminently. Once in place, the Frankfurt branch approvals would each become effective when the UK leaves the EU and the current passporting arrangements cease to apply. The Group fully expects to have received the requisite third country licenses and access to SEPA, Euro 1 and Target 2 ahead of the UK's departure from the EU. However, given the quantum of affected payments and lack of short term contingency arrangements, in the event that such euro clearing capabilities were not in place in time for a Hard Brexit or as required in the future, it would have an immediate material impact on the Group, the Bank and its customers.

With the introduction of IFRS 9, impairments are expected to be more volatile and the directors remain mindful of potential downside risks, particularly from single name and sector driven events.

The Bank continues to ensure sufficient CET1 capital is maintained, taking into account a range of variables that are expected to impact over the coming years. These include:

- Risk weighted assets (RWA) inflation as a result of Basel 3 amendments; and
- expected increased and pro-cyclical impairment volatility as a result of IFRS 9.

Accounting policies
The reported results of the Bank are sensitive to the accounting policies, assumptions and estimates that underlie the preparation of its accounts. Details of the Bank's critical accounting policies and key sources of estimation uncertainty are included in the respective notes as further described on page 22.

Risk management
The Bank has established a framework for managing risk, which is continually evolving as the Bank's business activities change in response to market, credit, product, regulatory and other developments. The major risks associated with the Bank's businesses and the Bank's policies for managing each of these risks and its exposure thereto are detailed in Note 14 to the accounts. The principal risk associated with the Bank's business is credit risk.

The Bank's future performance and results could be materially different from expected results depending on the outcome of certain potential risks and uncertainties, particularly credit risk.

Employees
Engaging our colleagues
The Bank values the input of its employees and actively seeks opportunities to engage with staff at all levels and invites them to contribute to on-going dialogue and activities to make the Bank a better organisation for our customers and staff. The survey of employee opinions, known as Our View, co-ordinated in March and September 2018, provided valuable data to decision makers across the Bank in support of improving employee engagement and satisfaction. In addition, further employee opinion is sought through the internal Working Together Survey, where colleagues provide feedback on the services provided by our support functions, and the external Banking Standards Board survey.

Community engagement
Our community programmes focus on delivering genuine benefits that make a difference to people's lives throughout Northern Ireland. The Bank invests in programmes that are most relevant for it as a financial institution – in particular promoting financial education. Employees across the Bank continue to widely support, both financially and through volunteering, many community and other worthy causes. Such giving is encouraged by the Bank through its use of payroll giving and its staff charity fund that supports worthy causes at local, national and international level.

Whilst our community programme and activities run throughout the year, every June there is a particular focus and employees come together to raise funds for local and national charities. “Give A Day” offers employees an extra day of annual leave to give their time as volunteers and fundraisers to a charity or cause that matters to them.

The Bank is represented on the European Employee Council which facilitates dialogue amongst employee representatives in the European Economic Area.

Employment of people with disabilities
The Bank's policy is that people with disabilities are considered for employment and subsequent training, career development and promotion based on merit. If members of staff become disabled, it is the Bank's policy, wherever possible, to retain them in their existing jobs or to re-deploy them in suitable alternative duties.

Inclusion
The Bank values and promotes diversity in all areas of recruitment and employment. Building a working environment where all our employees can develop to their full potential is important to us irrespective of their age, belief, disability, ethnic or national origin, gender, gender identity, marital or civil partnership status, political opinion, race, religion or sexual orientation. We work hard to avoid limiting potential through bias, prejudice or discrimination. We need a diverse mix of uniquely talented individuals to deliver great service to our diverse customer base. Key principles of our Diversity and Inclusion Policy include that we attract, motivate and retain the best talent. We base the employment relationship on the principles of fairness, respect and inclusion. We comply with local laws on equality and Our Code, the Bank's code of conduct, to build and develop an inclusive workforce in order to understand and respond to our diverse customer base. The Bank has established employee led networks in Northern Ireland which are supported by the Northern Ireland Regional Board.

Safety, health and wellbeing
The Bank recognises that people are key to the success of its business. The Bank's vision is for its employees, peers and communities to recognise that the Bank's pride and performance in safety, health and wellbeing adds value to them and to the Bank's business. Industry leading expertise, innovative tools, products and services and a practical approach to implementation are combined to ensure improved performance continues to be delivered.

The Bank promotes flexible working for its employees. We support managers and individuals to facilitate flexible working. Employees are able to avail of a range of flexible working options including regular or occasional working from home, working variable hours or working part time.

Opportunities to improve the efficiency and effectiveness of safety, health and wellbeing management policies and services are monitored on an ongoing basis. In 2018, we launched Bupa Boost for all colleagues as well as funding a permanent Bupa health check kiosk in our Belfast head office.

By order of the Board:

Aileen Taylor
Company Secretary

14 February 2019
Ulster Bank Limited is registered in Northern Ireland No. R0000733

The strategic report contains information on risk management, future developments in the business of the Bank, staff involvement and employment of people with disabilities.

Corporate governance

Internal control over financial reporting

The internal controls over financial reporting for the Bank are consistent with those at the RBS Group level. The RBS Group has assessed the effectiveness of its internal control over financial reporting as of 31 December 2018 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in the 2013 publication of 'Internal Control - Integrated Framework'. Based on its assessment, management has concluded that, as of 31 December 2018, the RBS Group's internal control over financial reporting is effective.

The RBS Group's auditors have audited the effectiveness of the RBS Group's internal control over financial reporting and have given an unqualified opinion.

Double Independent Non-Executive Directors

An integral part of our ring-fencing governance arrangements is the appointment of "Double Independent Non-Executive Directors" or "DINEDs" to the NatWest Holdings sub-group boards (NatWest Holdings, the Bank, NatWest Bank and The Royal Bank of Scotland plc), and board committees.

The DINEDs are independent in two respects: (i) independent of management as non-executives; and (ii) independent of the rest of the RBS Group by virtue of their NatWest Holdings sub group-only directorships. They play a critical role in our ring-fencing governance structure, with an enhanced role in managing any conflicts which may arise between the interests of the Bank and RBSG. The DINEDs attend RBSG Board meetings in an observer capacity.

On 30 April 2018, Yasmin Jetha stood down as a director of RBSG allowing her to assume DINED status. A further three DINEDs were appointed to the NatWest Holdings sub-group boards, including the Bank's board with effect from 1 May 2018 –Francesca Barnes, Graham Beale and Ian Cormack.

Board of directors

The Board is the main decision-making forum for the Bank. The Board is collectively responsible for the long-term success of the Bank and the delivery of sustainable value to its shareholders. The Board's role is to provide leadership of the Bank. It monitors and maintains the consistency of the Bank's activities within the strategic direction of the RBS Group; it reviews and approves risk appetite for strategic and material risks in accordance with the RBS Group Risk Appetite Framework and it monitors performance against risk appetite for the Bank. It approves the Bank's key financial objectives and keeps the capital and liquidity positions of the Bank under review. The Board's terms of reference includes key aspects of the Bank's affairs reserved for the Board's decision and are reviewed at least annually.

There are a number of areas where the Board has delegated specific responsibility to management, including the Chief Executive and the Chief Financial Officer. These include responsibility for the operational management of the Bank's businesses as well as reviewing high level strategic issues and considering risk appetite, risk policies and risk management strategies in advance of these being considered by the Board and/or its Committees.

Specific delegated authorities are also in place in relation to business commitments across the Bank.

The roles of Chairman and Chief Executive are distinct and separate, with a clear division of responsibilities. The Chairman leads the Board and ensures the effective engagement and contribution of all executive and non-executive directors. The Chief Executive has responsibility for all Group businesses and acts in accordance with authority delegated by the Board. The non-executive directors combine broad business and commercial experience with independent and objective judgement and they provide independent challenge to the executive directors and the leadership team.

The governance arrangements for the committees have been designed to enable RBSG to exercise appropriate oversight and to ensure that, as far as is reasonably practicable, the NatWest Holdings sub-group is able to take decisions independently of the wider RBS Group. The Audit, Performance and Remuneration, Nominations and Executive Committees of NatWest Holdings operate as the Audit, Performance and Remuneration, Nominations and Executive Committees of each of NatWest Holdings, the Bank, NatWest Bank and The Royal Bank of Scotland plc with meetings running concurrently.

The Audit Committee comprises at least three independent non-executive directors and assists the Board in discharging its responsibilities for monitoring the quality of the financial statements. It reviews the accounting policies, financial reporting and regulatory compliance practices of the Bank, the Bank's system and standards of internal controls, and monitors the Bank's processes for internal audit and external audit.

The Board Risk Committee comprises at least three independent non-executive directors. It provides oversight and advice to the Board on current and potential future risk exposures of the Bank and future risk strategy. It reviews the Bank's compliance with approved risk appetite and oversees the operation of the RBS Group's Policy Framework and submissions to regulators.

The Performance and Remuneration Committee comprises at least three independent non-executive directors and assists the RBSG Performance and Remuneration Committee with the oversight and implementation of the Bank's policy on remuneration. It also considers and makes recommendations on remuneration arrangements for senior executives of the Bank.

The Nominations Committee comprises five non-executive directors and is chaired by the Chairman of the Group. It is responsible for assisting the Board in the formal selection and appointment of directors. It reviews the structure, size and composition of the Board, and membership and chairmanship of Board committees.

The Executive Committee comprises the Bank's most senior executives and supports the Chief Executive in managing the Bank's business. It is responsible for managing and overseeing strategic, financial, capital, risk and operational issues.

Directors and secretaries

The directors and secretaries who served at anytime during the financial year and up to the date of signing are listed on page 1.

In accordance with the Articles of Association, the directors are not required to retire by rotation.

Directors' interests

Where directors of the Bank are also directors of RBSG, their interests in the shares of the ultimate holding company at 31 December 2018 are shown in the Corporate governance, Annual report on remuneration section of the RBS Group Report and Accounts 2018. None of the directors held an interest in the loan capital of the ultimate holding company or in the shares or loan capital of the Bank or any of the subsidiaries of the Bank, during the period from 1 January 2018 to 14 February 2019.

Directors' indemnities

In terms of section 236 of the Companies Act 2006, Qualifying Third Party Indemnity Provisions have been issued by the ultimate holding company to its directors, members of the Group's Executive Committee, individuals authorised by the PRA/FCA and certain directors and/or officers of the Group's subsidiaries and all trustees of the Bank's pension scheme.

Share capital

Details of the ordinary share capital at 31 December 2018 are shown in Note 13 to the accounts.

Political donations

During 2018, no political donations were made nor any political expenditure incurred (2017 - nil).

Dividends

The directors do not recommend the payment of a final dividend on ordinary shares (2017 - nil). During 2018 the directors approved interim dividends of £42 million (2017 - £4,581 million).

Post balance sheet events

There have been no significant events between the financial year end and the date of approval of the accounts which would require a change to or additional disclosure in the accounts.

Country-by-Country Reporting

The Bank is availing of the exemption under section 5(3) of The Capital Requirements (Country-by-Country Reporting) Regulations 2013 as the information required under the regulations is produced on a consolidated basis by the Bank's ultimate parent company, RBSG, and published on its website.

Going concern

The directors, having considered the Bank's business activities and financial position discussed in the business review (pages 2 to 4), its liquidity and funding profile and the risk factors set out in Note 14 and having made such enquiries as they considered appropriate, have a reasonable expectation that the Bank will continue in operational existence for the foreseeable future. Accordingly, the financial statements of the Bank have been prepared on a going concern basis.

Directors' disclosure to auditors

Each of the directors at the date of approval of this report confirms that:

(a) so far as the director is aware, there is no relevant audit information of which the company's auditors are unaware; and

(b) the director has taken all steps he/she ought to have taken as a director in order to make himself/herself aware of any relevant audit information and to establish that the company's auditors are aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of Section 418 of the Companies Act 2006.

Auditors

Ernst & Young are the Bank's auditors and have indicated their willingness to continue in office. A resolution to re-appoint Ernst & Young as the Bank's auditors will be proposed at the forthcoming Annual General Meeting.

By order of the Board:

Aileen Taylor
Company Secretary

14 February 2019

Ulster Bank Limited is registered in Northern Ireland No. R0000733

Statement of directors’ responsibilities

This statement should be read in conjunction with the responsibilities of the auditor set out in their report on page 13.

The directors are responsible for the preparation of the Annual Report and Accounts. As permitted by the Companies Act 2006 the directors have elected to prepare accounts, for each financial year in accordance with International Financial Reporting Standards as adopted by the European Union. They are responsible for preparing accounts that present fairly the financial position, financial performance and cash flows of the company. In preparing those accounts, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent; and
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the accounts.

The directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the company and to enable them to ensure that the Annual Report and Accounts complies with the Companies Act 2006. They are also responsible for safeguarding the assets of the company hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors confirm that to the best of their knowledge:

- the financial statements, prepared in accordance with International Financial Reporting Standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the company; and
- the strategic report and report of the directors includes a fair review of the development and performance of the business and the position of the company, together with a description of the principal risks and uncertainties that they face.

By order of the Board:

Howard Davies Chairman	Ross McEwan Chief Executive	Katie Murray Chief Financial Officer

14 February 2019

Board of directors

Chairman	**Executive directors**	**Non-executive directors**
Howard Davies	Ross McEwan	Francesca Barnes
	Katie Murray	Graham Beale
	Alison Rose-Slade	Ian Cormack
		Alison Davis
		Patrick Flynn
		Morten Friis
		Robert Gillespie
		Yasmin Jetha
		Baroness Noakes
		Mike Rogers
		Mark Seligman
		Dr Lena Wilson

Independent auditor's report to the members of Ulster Bank Limited

Opinion

We have audited the financial statements of Ulster Bank Limited ('the Company') for the year ended 31 December 2018, which comprise the Income Statement, Statement of Comprehensive Income, Balance Sheet, Statement of Changes in Equity, Cash flow Statement, summary of significant accounting policies and the related notes 1 to 23 (excluding those marked as 'unaudited'). The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

In our opinion, the financial statements:

- give a true and fair view of the company's affairs as at 31 December 2018 and of its profit for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Overview of our audit approach

Key audit matters	• Impairment provision on loans and advances to customers under IFRS 9 • IT systems and controls
Materiality	• Overall materiality of £10m which represents 2% of Equity

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in our opinion thereon, and we do not provide a separate opinion on these matters.

<table>
<tr><th>Risk</th><th>Our response to the risk</th></tr>
<tr><th colspan="2">Impairment provision on loans to customers under IFRS 9</th></tr>
<tr><td>On 1 January 2018, the Company adopted IFRS 9 Financial Instruments, which replaced IAS 39 Financial Instruments: Recognition and Measurement.

At year end the Company reported total gross loans to customers subject to expected credit losses ('ECL') of £3,803m and £84m of ECL.

Key judgements and estimates in respect of the timing and measurement of ECL include:

• Allocation of assets to stage 1, 2, or 3 using criteria in accordance with the accounting standard;
• Modelling assumptions and key parameters used to build the models that calculate the ECL;
• Completeness and accuracy of data used to calculate the ECL;
• Inputs and assumptions used to estimate the impact of multiple economic scenarios;
• Completeness and valuation of post model adjustments;
• Accuracy and completeness of the financial statement disclosures.

Refer to the Accounting policies and Notes 9 and 14 of the financial statements.</td><td>As IFRS 9 was adopted at the beginning of the year, we performed audit procedures on the opening balances to gain assurance on the transition from IAS 39. This included evaluating the accounting interpretations for compliance with IFRS 9 and testing the adjustments and disclosures made on transition.

We tested the design and operating effectiveness of key controls across the processes relevant to the ECL. This included the allocation of assets into stages, model governance, data accuracy and completeness, credit stewardship, multiple economic scenarios, post model adjustments and production of journal entries and disclosures.

We attended the key risk committees where the inputs, assumptions and adjustments to the ECL were discussed and approved.

We performed an overall assessment of the ECL provision levels by stage to determine if they were reasonable considering the Company's portfolio, risk profile, credit risk management practices and the macroeconomic environment. We considered trends in the economy and industries to which the Company is exposed.

We challenged the criteria used to allocate an asset to stage 1, 2 or 3 in accordance with IFRS 9. We tested assets in stage 1, 2 and 3 to verify that they were allocated to the appropriate stage.

With the support of our modelling specialists, we tested the assumptions, inputs and formulas used in a sample of ECL models. This included assessing the appropriateness of model design and formulas used, considering alternative modelling techniques and recalculating the Probability of Default, Loss Given Default and Exposure at Default for a sample of models.

To verify data quality, we tested the data used in the ECL calculation by reconciling to source systems.

With the support of our economic specialists, we assessed the base case and alternative economic scenarios, including challenging probability weights. We assessed whether forecasted macroeconomic variables were appropriate, such as GDP, unemployment, interest rates and House Price Index. With the support of our modelling specialists we challenged the correlation and impact of the macroeconomic factors to the ECL.

We assessed the completeness and appropriateness of post model adjustments and recalculated a sample. Based on current economic conditions and market circumstances, we considered the need for sector or systemic adjustments. We assessed the appropriateness of the scenarios used in response to Brexit related economic uncertainty.

We assessed the adequacy and appropriateness of disclosures for compliance with the accounting standards including disclosure of transition from IAS 39.

Our planned audit procedures were completed without material exception.</td></tr>
</table>

Risk	Our response to the risk
IT systems and controls	
The IT environment is complex and pervasive to the operations of the Company due to the large volume of transactions processed in numerous locations daily and the reliance on automated and IT dependent manual controls. Our audit approach relies upon IT applications and the related control environment including: • User access management across application, database and operating systems; • Changes to the IT environment, including transformation that changes the IT landscape; • IT operational controls; • IT application or IT dependent controls; and • Evaluation of IT control environment at third party service providers.	We tested the design and operating effectiveness of IT controls over the relevant applications, operating systems and databases that are relevant to financial reporting. Our testing included evaluating IT general controls over the appropriateness of access rights and password settings, authorisation of changes to the IT environment, and monitoring of job scheduling, back-ups and incidents. We tested automated controls within business processes and the reliability of relevant reports used as part of a manual control. This included challenging the integrity of interfaces, the completeness and accuracy of data feeds, automated calculations and specific input controls. Where we identified systems outsourced to third party service providers we evaluated IT general controls through the relevant Service Organisation Controls Reports produced by third parties and tested any required complementary controls performed by the Company. Where control deficiencies were identified, we tested remediation activities performed by management and any compensating controls in place. We performed alternative substantive procedures where necessary to mitigate any residual risk. Our planned audit procedures were completed without material exception.

In the prior year, we included a key audit matter in relation to the recoverability of deferred tax assets. We have removed this key audit matter following our reassessment of the risks associated with the recoverability of deferred tax assets.

An overview of the scope of our audit

Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for the Company. This enables us to form an opinion on the financial statements. We take into account size, risk profile, the organisation of the Company and effectiveness of controls, including controls and changes in the business environment when assessing the level of work to be performed.

There have been no significant changes in scoping that applied in our prior year audit and all audit work was performed directly by, or under the instruction of, the audit engagement team.

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

Materiality is the magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Company to be £10m (2017: £9.7m), which is 2% (2017: 2%) of Equity. We believe that Equity provides us with the most appropriate basis for materiality having considered the expectation of the users of the financial statements and the overall business environment.

Performance materiality

Performance materiality is the threshold for application of materiality at the individual account or balance level. Performance materiality is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Company's overall control environment, our judgement was that performance materiality was 75% (2017: 75%) of our planning materiality, namely £7.4m (2017: £7.3m). We have set performance materiality at this level having considered our prior year experience of the risk of misstatements, both corrected and uncorrected.

Reporting threshold

An amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of £0.5m (2017: £0.5m), which is set at 5% of planning materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. Our reporting threshold amount is designated at an amount below which misstatements would not be accumulated because we expect that the accumulation of such amounts clearly would not have a material effect on the financial statements.

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Other information

Other information comprises the information included in the Annual Report other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and directors' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit

Responsibilities of directors

As explained more fully in the statement directors' responsibilities set out on page 8, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

The objectives of our audit, in respect to fraud, are; to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and management.

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the Company and have a direct impact on the preparation of the financial statements and understood how the Company is complying with those frameworks by reviewing policy framework, holding discussions with the Company's general counsel and internal audit, amongst others.
- We assessed the susceptibility of the financial statements to material misstatement, including how fraud might occur by holding discussions with senior management, including the Chief Executive Officer, Chief Financial Officer, Chief Risk Officer, Group General Counsel, Head of Internal Audit and Audit Committee Chairman. We also reviewed the fraud-related policies and mandates of different governance forums assessing fraud.
- Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. Our procedures involved inquiring of key management, reviewing the key policies and reports on the aforementioned regulatory frameworks as well as reviewing the correspondence exchanged with the Regulators.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Other matters we are required to address

- We were appointed by the company on 21 April 2016 to audit the financial statements for the year ending 31 December 2016 and subsequent financial periods. The current period of total uninterrupted engagement including previous renewals and reappointments of the firm is 3 years, covering the years ending 31 December 2016 to 31 December 2018.
- The non-audit services prohibited by the FRC's Ethical Standard were not provided to the company and we remain independent of the company in conducting the audit.
- The audit opinion is consistent with the additional report to the audit committee.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Martina Keane
for and on behalf of
Ernst & Young Chartered Accountants, Statutory Auditor

Office: Dublin

Date: 14 February 2019

Income statement for the year ended 31 December 2018

	Note	2018 £m	2017 £m
Interest receivable		195	168
Interest payable		(51)	(34)
Net interest income	1	144	134
Fees and commission receivable		53	50
Fees and commission payable		(9)	(9)
Other operating income		47	59
Non-interest income	2	91	100
Total income		235	234
Staff costs		(81)	(88)
Premises and equipment		(15)	(21)
Other administrative expenses		(77)	(67)
Depreciation		(3)	(3)
Operating expenses	3	(176)	(179)
Profit before impairment (losses)/releases		59	55
Impairment (losses)/releases	9	(6)	6
Operating profit before tax		53	61
Tax charge	6	(6)	(22)
Profit for the year		47	39
Attributable to:			
Ordinary shareholders		47	39

Statement of comprehensive income for the year ended 31 December 2018

	2018 £m	2017 £m
Profit for the year	47	39
Items that do not classify for reclassification:		
Gain/(loss) on remeasurement of retirement benefit scheme	3	(7)
Tax	(1)	1
Other comprehensive income/(loss) after tax	2	(6)
Total comprehensive income for the year	49	33
Attributable to:		
Ordinary shareholders	49	33

The accompanying accounting policies and notes form an integral part of these financial statements.

Balance sheet as at 31 December 2018

	Note	2018 £m	2017 £m
Assets			
Cash and balances at central banks	8	1,063	1,032
Derivatives	7	5	9
Loans to banks - amortised cost	8	58	58
Loans to customers - amortised cost	8	3,699	3,736
Amounts due from holding companies and fellow subsidiaries	8	6,750	7,091
Other assets	10	66	61
Total assets		11,641	11,987
Liabilities			
Bank deposits - amortised cost	8	5	21
Customer deposits - amortised cost	8	6,963	7,786
Customer deposits - designated at fair value through profit and loss	8	10	36
Amounts due to holding companies and fellow subsidiaries	8	3,299	2,780
Derivatives	7	9	18
Other liabilities	12	869	860
Total liabilities		11,155	11,501
Owners' equity		486	486
Total liabilities and equity		11,641	11,987

The accompanying accounting policies and notes form an integral part of these financial statements.

The accounts were approved by the Board of Directors on 14 February 2019 and signed on its behalf by:

Howard Davies	Ross McEwan	Katie Murray
Chairman	Chief Executive	Chief Financial Officer

Ulster Bank Limited is registered in Northern Ireland No. R0000733

Statement of changes in equity for the year ended 31 December 2018

	2018 £m	2017 £m
Called up share capital - at 1 January	254	455
Conversion of preference share capital to retained earnings	-	(201)
At 31 December	254	254
Paid-in equity - at 1 January	60	-
Additional Tier 1 loan	-	60
At 31 December	60	60
Share premium account - at 1 January	-	457
Conversion of preference share capital to retained earnings	-	(457)
At 31 December	-	-
Retained earnings - at 1 January	172	4,064
Implementation of IFRS 9 on 1 January 2018 (1)	(4)	-
Gain/(loss) on remeasurement of retirement benefit scheme	3	(7)
Tax	(1)	1
Conversion of preference share capital to retained earnings	-	658
Profit attributable to ordinary shareholders	47	39
Paid-in equity coupon payments, net of tax	(3)	(2)
Dividends paid	(42)	(4,581)
At 31 December	172	172
Owners' equity at 31 December	486	486

Note:

(1) Refer to Note 21 for further information on the impact of IFRS 9. The year ended 31 December 2018 was prepared under IFRS 9 and the prior year under IAS 39.

The accompanying accounting policies and notes form an integral part of these financial statements.

Cash flow statement for the year ended 31 December 2018

	Note	2018 £m	2017 £m
Cash flows from operating activities			
Operating profit before tax		53	61
Dividends received		(1)	(14)
Depreciation and impairment of property, plant and equipment		3	3
Interest on subordinated liabilities		1	4
Defined benefit pension schemes		3	(7)
Impairment losses/(releases) on loans to banks and customers		6	(6)
Loans written-off		(39)	(42)
Elimination of foreign exchange differences		-	19
Other non-cash items		4	5
Net cash flows from trading activities		30	23
Decrease/(increase) in loans to banks and customers		71	(53)
(Increase)/decrease in amounts due from holding companies and fellow subsidiaries		(241)	455
Increase in other assets		-	(12)
Increase in derivative assets and liabilities		(5)	(19)
(Decrease)/increase in bank and customer deposits		(865)	2,102
Increase/(decrease) in amounts due to holding companies and fellow subsidiaries		476	(450)
Increase in other liabilities		1	54
Changes in operating assets and liabilities		(563)	2,077
Income taxes paid		(15)	(5)
Net cash flows (used in)/from operating activities[1]		(548)	2,095
Cash flows from investing activities			
Purchase of property, plant and equipment		(3)	(5)
Sale of property, plant and equipment		4	-
Sale of investment in group undertakings		-	4,883
Dividends received		1	14
Net cash flows from investing activities		2	4,892
Cash flows from financing activities			
Issue of Additional Tier 1 loan		-	60
Repayment of subordinated loans		-	(857)
Interest on subordinated liabilities		(1)	(4)
Paid-in equity coupon payments		(3)	(2)
Dividends paid		-	(4,581)
Net cash flows used in financing activities		(4)	(5,384)
Effects of exchange rate changes on cash and cash equivalents		1	6
Net (decrease)/increase in cash and cash equivalents		(549)	1,609
Cash and cash equivalents 1 January	17	6,020	4,411
Cash and cash equivalents 31 December	17	5,471	6,020

Note:

(1) Includes interest received of £194 million (2017 – £167 million) and interest paid of £50 million (2017 – £37 million).

The accompanying notes form an integral part of these financial statements.

1. Presentation of accounts
The accounts, set out on pages 14 to 86 including these accounting policies on pages 18 to 23 and the audited sections of Risk management on pages 41 to 80, are prepared on a going concern basis (see the Report of the directors, page 7) and in accordance with International Financial Reporting Standards issued by the International Accounting Standards Board (IASB), and interpretations issued by the International Financial Reporting Interpretations Committee of the IASB, as adopted by the EU (together IFRS).

The company is incorporated in the UK and registered in Northern Ireland. Its accounts are presented in accordance with the Companies Act 2006. With the exception of certain financial instruments as described in accounting policies 12 and 19 the accounts are presented on a historical cost basis.

Adoption of IFRS 9
Refer to Note 21 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.

2. Basis of consolidation
The accounts contain information about Ulster Bank Limited as an individual company and do not contain consolidated financial information as the parent of a group. The company is exempt under IFRS 10 'Consolidated Financial Statements' from the requirement to prepare consolidated accounts as the company and its subsidiaries are included by full consolidation in the IFRS consolidated accounts of its ultimate parent, RBSG, a public company registered in Scotland.

3. Revenue recognition
Interest income or expense on financial instruments that are measured at amortised cost or fair value through other comprehensive income (FVOCI) 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 gross 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. When a financial asset becomes credit-impaired (Stage 3), interest income is recognised by applying the effective interest rate to the net amortised cost of the financial asset.

If the financial asset is no longer credit-impaired, the calculation reverts to the gross basis.

Net interest income in the income statement only relates to financial instruments measured at amortised cost and the interest on debt instruments classified as fair value through OCI. 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
A non-current asset is classified as held for sale if the Bank will recover its carrying amount principally through a sale transaction rather than through continuing use. A non-current asset classified as held for sale is measured at the lower of its carrying amount and fair value less costs to sell. If the asset is acquired as part of a business combination, it is initially measured at fair value less costs to sell. Non current assets classified as held for sale are shown under the heading of Other assets on the balance sheet.

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. 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 claw back criteria.

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 Bank 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 Bank significantly reduces the number of employees covered by a plan. A plan amendment occurs when the Bank 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 remeasuring the net defined benefit asset or liability) are recognised in other comprehensive income in full in the period in which they arise.

6. Property, plant and equipment

Items of property, plant and equipment are stated at cost less accumulated depreciation and impairment losses. Where an item of property, plant and equipment comprises major components having different useful lives, these are accounted for separately.

Depreciation is charged to profit or loss on a straight-line basis so as to write-off the depreciable amount of property, plant and equipment (including assets owned and let on operating leases) over their estimated useful lives. The depreciable amount is the cost of an asset less its residual value. Freehold land is not depreciated.

The estimated useful lives of the Bank's property, plant and equipment are:

Freehold buildings	50 years
Long leasehold property (leases with more than 50 years to run)	50 years
Short leaseholds	unexpired period of lease
Property adaptation costs	10 to 15 years
Computer equipment	up to 5 years
Other equipment	4 to 15 years

The residual value and useful life of property, plant and equipment are reviewed at each balance sheet date and updated for any changes to previous estimates.

7. Impairment of property, plant and equipment

At each balance sheet date, the Bank assesses whether there is any indication that its property, plant and equipment are impaired. If any such indication exists, the Bank estimates the recoverable amount of the asset and the impairment loss, if any.

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.

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 a 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 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.

8. Foreign currencies

The Bank's accounts 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 non-interest income.

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 fair value through OCI.

9. Leases

As lessee

The Bank'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 Bank.

10. Provisions

The Bank 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 Bank has a constructive obligation to restructure. An obligation exists when the Bank 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 Bank 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 Bank's contractual obligations exceed the expected economic benefits. When the Bank 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.

11. 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 they 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.

12. Financial instruments

On initial recognition, financial instruments are measured at fair value. Subsequently they are measured 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 Bank manages and evaluates on a fair value basis; or (c) relates to an instrument that contains an embedded derivative which is not evidently closely related to the host contract.

Financial assets that the Bank 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.

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.

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.

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.

13. 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.

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

Impaired loans and receivables are written off, when the Bank 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.

14. Financial guarantee contracts

Under a financial guarantee contract, the Bank, 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. 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 10. Amortisation is calculated so as to recognise fees receivable in profit or loss over the period of guarantee.

15. Loan commitments

Provision is made for loan commitments, other than those classified as held-for-trading, if it is probable that the facility will be drawn and the resulting loan will be recognised at an amount less than the cash advanced.

16. 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 Bank 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 Bank 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 Bank assesses whether or not it has retained control of the asset. If the Bank has retained control of the asset, it continues to recognise the asset to the extent of its continuing involvement; if the Bank has not retained control of the asset, it is derecognised.

A financial liability is removed from the balance sheet when the obligation is discharged, cancelled or expired. On the redemption or settlement of debt securities (including subordinated liabilities) issued by the Bank, the Bank derecognises the debt instrument and records a gain or loss being the difference between the debt's 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.

17. Netting

Financial assets and financial liabilities are offset and the net amount presented in the balance sheet when, and only when, the Bank 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 Bank 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.

18. Capital instruments

The Bank 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 Bank after the deduction of liabilities.

19. Derivatives

In accordance with IAS 39, derivative financial instruments are initially recognised, and subsequently measured, at fair value. The Bank's approach to determining the fair value of financial instruments is set out in the section of critical accounting policies and key sources of estimation uncertainty entitled Fair value – financial instruments; further details are given in Note 8 to the accounts.

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 non-interest income.

20. 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.

21. Shares in subsidiaries

The Bank's investments in its subsidiaries are stated at cost less any impairment.

Critical accounting policies and key sources of estimation uncertainty

The reported results of the Bank 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 Bank'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's 'Conceptual Framework for Financial Reporting'.

The judgements and assumptions involved in the Bank's 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 Bank would affect its reported results.

Critical accounting policy	Note
Deferred tax	6
Fair value: financial instruments	8
Loan impairment provisions	9
Provisions for liabilities	12

Accounting developments

International Financial Reporting Standards

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

On adoption, none of these standards are expected to have a material effect on the Bank's results.

Effective 1 January 2019

IFRS 16 'Leases' was issued in January 2016 to replace IAS 17 'Leases'. The Bank 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 Bank 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 Bank under contracts classified as operating leases under IAS 17. The present value of other contracts is immaterial.

The Bank will apply IFRS 16 on a modified retrospective basis without restating prior years and electing the following exemptions on transition at 1 January 2019, the Bank 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 alternate to performing an impairment 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 onerous lease provision
- exclude initial direct costs from the measurement of the right of use asset

The opening balance sheet at 1 January 2019 will be adjusted to create a right of use asset of approximately £12 million. A lease liability will also be recognised of £15 million. Retained earnings will decrease by £3 million before tax.

Application of IFRS 16 by the Bank 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 Bank continues to assess the effect of adopting these standards on its financial statements.

1. Net interest income

	2018 £m	2017 £m
Loans to banks - amortised cost	66	45
Loans to customers - amortised cost	129	123
Interest receivable	195	168
Bank deposits - amortised cost	(21)	(14)
Customer deposits: demand - amortised cost	(8)	(4)
Customer deposits: savings - amortised cost	(20)	(11)
Customer deposits: other time - amortised cost	(1)	(1)
Subordinated liabilities	(1)	(4)
Interest payable	(51)	(34)
Net interest income	144	134

Included within net interest income is £2 million (2017 - £1 million) of interest on impaired loans.

2. Non-interest income

	2018 £m	2017 £m
Net fees and commission (Note 4)	44	41
Other operating income:		
Income on services provided to other RBS Group companies	44	50
Loss on disposal or settlement of loans	-	(18)
Cost of economic hedging		
- Foreign exchange	2	3
- Interest rate	1	10
Dividend income	1	14
Other income	(1)	-
	47	59
Non-interest income	91	100

3. Operating expenses

	2018 £m	2017 £m
Wages, salaries and other staff costs	57	61
Social security costs	6	7
Pension costs		
- defined benefit schemes (Note 5)	14	13
- defined contribution schemes	2	1
Restructure costs	2	6
Staff costs	81	88
Premises and equipment	15	21
Other administrative expenses	77	67
Administrative expenses	92	88
Property, plant and equipment depreciation and impairment (Note 11)	3	3
	176	179

3. Operating expenses continued

The average number of persons employed by the Bank during the year, excluding temporary staff, was 1,820 (2017 - 1,969). The average number of temporary employees during 2018 was 140 (2017 - 170). The number of persons employed by the Bank at 31 December, excluding temporary staff, was as follows:

	2018 Number	2017 Number
PBB	941	851
CPB	96	95
Other	761	904
	1,798	1,850

Other principally comprises staff members whose roles involve the provision of services exclusively to other companies in RBS Group including attributable central costs at an arm's length transfer pricing mark up. The staff costs of these employees are recharged to the companies they provide services to.

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

	2018 £'000	2017 £'000
Fees payable for the audit of the Bank's annual accounts	341	385
Fees payable to the auditor for other assurance services	70	-
Total audit and audit related assurance service fees	411	385

Other than the amounts disclosed above, no remuneration was payable in respect of tax advisory services and other non-audit services. Auditors' remuneration is disclosed exclusive of VAT.

4. Segmental analysis

The Bank operates entirely in the UK and is managed by the following classes of business on which basis the segmental analysis is presented.

Personal & Business Banking (PBB) provides loan and deposits through a network of branches and direct channels to customers.

Commercial & Private Banking (CPB) provides services to commercial and corporate customers.

Other represents central functions comprising Treasury, Customer Debt Solutions, Finance, Risk, Legal and Human Resources which support the PBB and CPB divisions and other RBS Group subsidiaries. The services provided to other RBS Group companies are invoiced through the Bank's transfer pricing process on an arm's length basis including an appropriate mark up on costs incurred.

	2018				2017			
Class of business	PBB £m	CPB £m	Other £m	Total £m	PBB £m	CPB £m	Other £m	Total £m
Net interest income	106	38	-	144	99	35	-	134
Net fees and commissions	31	13	-	44	31	10	-	41
Other operating income	4	(4)	47	47	(5)	-	64	59
Total income	141	47	47	235	125	45	64	234
Operating profit/(loss) before tax	98	40	(85)	53	83	42	(64)	61
Total assets	3,620	1,200	6,821	11,641	3,722	1,108	7,157	11,987
Total liabilities	(6,214)	(1,605)	(3,336)	(11,155)	(6,994)	(1,686)	(2,821)	(11,501)
Net (liabilities)/assets	(2,594)	(405)	3,485	486	(3,272)	(578)	4,336	486

4. Segmental analysis continued

Class of business	2018 PBB £m	2018 CPB £m	2018 Other £m	2018 Total £m	2017 PBB £m	2017 CPB £m	2017 Other £m	2017 Total £m
Fees and commission receivable								
- Payment services	14	4	-	18	17	-	-	17
- Credit and debit card fees	14	2	-	16	12	3	-	15
- Lending (Credit facilities)	8	7	-	15	8	8	-	16
- Brokerage	1	-	-	1	1	-	-	1
- Trade finance	-	-	-	-	1	-	-	1
- Other	2	1	-	3	-	-	-	-
Total	39	14	-	53	39	11	-	50
Fees and commission payable	(8)	(1)	-	(9)	(8)	(1)	-	(9)
Net fees and commissions	31	13	-	44	31	10	-	41

5. Pensions

Defined contribution scheme
The Bank contributes to its own defined contribution scheme and a small number of RBS Group Pension Schemes, the costs of which are accounted for as defined contributions.

Defined benefit scheme
The Bank sponsors the Ulster Bank Pension Scheme (UBPS), which operates under Northern Ireland 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 Northern Ireland legislation. Under Northern Ireland 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 UBPS corporate trustee is Ulster Bank Pension Trustees Limited (UBPTL) a wholly owned subsidiary of the Bank. UBPTL is the legal owner of the scheme assets which are held separately from the assets of the Bank. The board of UBPTL comprises three trustee directors nominated by members selected from eligible active staff and pensioner members who apply and six appointed by the Bank. The board is responsible for operating the scheme in line with its formal rules and pensions law. It has a duty to act in the best interests of all scheme members, including pensioners and those who are no longer employed by the Bank, but who still have benefits in the scheme.

Pension fund trustees are required to: prepare a statement of funding principles; obtain regular actuarial valuations and reports; put in place a recovery plan addressing any funding shortfall; and send regular summary funding statements to members of the scheme.

The scheme was closed to new entrants in 2009, when a new defined contribution scheme was launched.

Employees make contributions at varying levels depending on when they joined the scheme. In addition, employees may make voluntary contributions to secure additional benefits on a money-purchase basis.

Pension risk is the risk to the Bank arising from its contractual or other liabilities to, or with respect to, its pension scheme, whether established for its employees, for those of a related company or otherwise. For further details on pension risk refer to Note 14.

Investment strategy
The assets of the UBPS are invested in a diversified portfolio of quoted equities, government and corporate fixed-interest and index-linked bonds, and other assets including real estate and hedge funds.

The scheme employs derivative instruments to achieve a desired asset class exposure and to reduce the schemes' 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.

Major classes of plan assets as a percentage of total plan assets of the scheme	2018 Quoted %	2018 Unquoted %	2018 Total %	2017 Quoted %	2017 Unquoted %	2017 Total %
Equities	3	3	6	7	1	8
Index-linked bonds	31	-	31	30	-	30
Government fixed interest bonds	3	-	3	3	-	3
Corporate and other bonds	22	4	26	23	-	23
Hedge funds	-	3	3	-	3	3
Real estate	-	4	4	-	3	3
Derivatives	-	6	6	-	10	10
Cash and other assets	-	21	21	-	20	20
	59	41	100	63	37	100

5. Pensions continued

Changes in value of net pension asset	Fair value of plan assets £m	Present value of defined benefit obligations £m	Asset ceiling/ minimum funding [1] £m	Net pension surplus £m
At 1 January 2017	1,162	(884)	(278)	-
Income statement	31	(36)	(8)	(13)
Statement of comprehensive income	9	(7)	(9)	(7)
Contributions by employer	20	-	-	20
Contributions by plan participants	1	(1)	-	-
Benefits paid	(32)	32	-	-
At 1 January 2018	1,191	(896)	(295)	-
Income statement	30	(37)	(7)	(14)
Net interest cost	30	(23)	-	7
Current service cost	-	(11)	-	(11)
Expenses	-	(1)	-	(1)
Past service cost	-	(2)	-	(2)
Interest on the asset ceiling	-	-	(7)	(7)
Statement of comprehensive income	(44)	48	(1)	3
Return on plan assets above recognised interest income	(44)	-	-	(44)
Experience gains and losses	-	(1)	-	(1)
Effect of changes in actuarial financial assumptions	-	42	-	42
Effect of changes in actuarial demographic assumptions	-	7	-	7
Asset ceiling/minimum funding adjustments	-	-	(1)	(1)
Contributions by employer	11	-	-	11
Contributions by plan participants	1	(1)	-	-
Benefits paid	(48)	48	-	-
At 31 December 2018	1,141	(838)	(303)	-

Note:
(1) In recognising the net surplus or deficit of a pension scheme, the funded status of the scheme is adjusted to reflect any minimum funding requirement imposed on the sponsor and any ceiling on the amount that the sponsor has a right to recover from the scheme.

Amounts recognised on the balance sheet	2018 £m	2017 £m
Fund assets at fair value	1,141	1,191
Present value of fund liabilities	(838)	(896)
Funded status	303	295
Asset ceiling/minimum funding	(303)	(295)
Retirement benefit asset	-	-

Amounts recognised in the income statement	2018 £m	2017 £m
Operating expenses	14	13

Funding and contributions by the Bank

In Northern Ireland, the trustees of defined benefit pension schemes are required to perform funding valuations every three years. The trustee and the Bank, 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. The latest funding valuation of the scheme was at 31 December 2015 and the next funding valuation is due at 31 December 2018, to be agreed by 31 March 2020.

The triennial funding valuation of the scheme as at 31 December 2015 determined the funding level to be 99%, pension liabilities to be £922 million and the deficit to be £9 million. The average cost of the future service of current members is 40% of basis salary before contributions from those members. During 2016 (and concluding in early February 2017), the terms of the 31 December 2015 funding valuation of the UBPS were agreed with the Trustee. This resulted in the cessation of deficit recovery contributions from the Bank. Contributions to cover the ongoing accrual of benefits by employees and the expenses of the pension scheme continue.

5. Pensions continued

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. Its estimate in 2018 reflecting the clarity provided by the Court's ruling was 0.3% of the defined benefit obligation, including the impact of any future conversion exercise to rectify the position. Accordingly, the effect of the 2018 changes in actuarial financial assumptions recognised as a past service cost by the Bank includes £3 million in respect of this aspect of equalisation.

The Bank expects to contribute £9 million to its defined benefit pension scheme in 2019.

Assumptions

Placing a value on the Bank's defined benefit pension schemes' liabilities requires the Bank's management to make a number of assumptions, with the support of independent actuaries who provide advice and guidance. The ultimate cost of the defined benefit obligations to the Bank will depend 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.

A year-end valuation of the Bank's scheme was prepared to 31 December 2018 by independent actuaries using the following assumptions:

	Principal IAS 19 actuarial assumptions		Principal assumptions of 2015 triennial valuation
	2018	2017	2015
	%	%	%
Discount Rate	2.90	2.55	Fixed interest swap yield curve plus 0.7% per annum at all durations
Inflation assumption	2.15	2.10	RPI swap yield curve less 1% per annum
Rate of increase in salaries	1.75	1.75	CPI curve adjusted to reflect a 0% per annum floor and 2% per annum cap
Rate of increase in deferred pensions	3.10	3.00	RPI curve
Rate of increase in pensions in payment	0.00-2.30	0.00-2.20	Inflation curves adjusted to reflect the floor and cap
Proportion of pension converted to a cash lump sum at retirement	25.00	25.00	25.00
Longevity:	years	years	years
Current pensioners, currently aged 70 years			
Males	19.4	19.5	19.6
Females	20.7	20.8	21.1
Future pensioners, currently aged 63 years			
Males	25.8	25.9	26.4
Females	27.3	27.4	28.0

These post-retirement mortality assumptions are derived from standard mortality tables used by the scheme actuary to value the liabilities for the scheme.

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 average duration of the Bank's defined benefit obligation at 31 December 2018 is 21 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.

The table below sets out the sensitivities of the pension cost for the financial year and the present value of defined benefit obligations at the balance sheet dates to a change in the principal actuarial assumptions:

	(Decrease)/increase in pension cost for the year		(Decrease)/increase in obligation at 31 December	
	2018	2017	2018	2017
	£m	£m	£m	£m
0.25% increase in the discount rate	(0.7)	(2.9)	(42)	(43)
0.25% increase in inflation	0.6	1.3	17	26
Longevity increase of 1 year	0.2	0.8	20	20
0.25% additional rate of increase in pensions in payment	0.4	1.0	21	22
0.25% additional rate of increase in deferred pensions	0.1	0.3	10	10
0.25% additional rate of increase in salaries	0.3	0.5	3	3

5. Pensions continued

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

Membership category	2018 %	2017 %
Active members	21.1	24.1
Deferred members	43.1	41.6
Pensioners and dependents	35.8	34.3
	100.0	100.0

The experience history of the scheme is shown below:

History of defined benefit scheme	2018 £m	2017 £m	2016 £m	2015 £m	2014 £m
Fair value of plan assets	1,141	1,191	1,162	911	889
Present value of defined benefit obligations	838	896	884	755	770
Net surplus	303	295	278	156	119
Experience (losses)/gains on plan liabilities	(1)	(1)	42	8	6
Experience (losses)/gains on plan assets	(44)	9	200	(33)	99
Actual return on pension scheme assets	(14)	40	236	1	132

6. Taxation

	2018 £m	2017 £m
Current tax		
Charge for the year	(13)	(14)
Under provision in respect of prior periods	-	(6)
	(13)	(20)
Deferred tax		
Charge for the year	(2)	(1)
Increase in the carrying value of deferred tax assets in respect of losses	7	-
Over/(under) provision in respect of prior periods	2	(1)
	7	(2)
Tax charge for the year	(6)	(22)

The actual tax charge differs from the expected tax charge computed by applying the main UK corporation tax rate of 19.00% (2017 - 19.25%).

	2018 £m	2017 £m
Expected tax charge	(10)	(12)
Non-deductible items	(1)	(4)
Non-taxable income	-	3
Surcharge on banking companies (1)	(4)	(5)
Losses brought forward and utilised	-	3
Increase in the carrying value of deferred tax asset in respect of losses	7	-
Adjustments to tax charge in respect of prior periods	2	(7)
Actual tax charge	(6)	(22)

Note:
(1) The main rate of UK Corporation Tax reduced from 20% to 19% on 1 April 2017 and will reduce to 17% from 1 April 2020. Under the Finance (No 2) Act 2015, tax losses carried forward at 31 December 2017 are given credit in future periods at the main rate of UK corporation tax rate, excluding the Banking Surcharge rate (8%) introduced by the Act. Deferred tax assets and liabilities at 31 December 2018 take into account the reduced rates in respect of tax losses and non-banking temporary differences and where appropriate, the banking surcharge inclusive rate in respect of other banking temporary differences. As this is a banking company, the Banking Surcharge rate of 8% is applied from 1 January 2016.

6. Taxation continued

Deferred tax

Net deferred tax asset comprised:

	Pension £m	Accelerated capital allowances £m	Deferred gains £m	IFRS 9 transition £m	Other provisions £m	Tax losses £m	Total £m
At 1 January 2017	-	4	(7)	-	-	14	11
Charge to income statement	(1)	(1)	-	-	-	-	(2)
Credit to other comprehensive income	1	-	-	-	-	-	1
At 1 January 2018	-	3	(7)	-	-	14	10
Implementation of IFRS 9 on 1 January 2018	-	-	-	1	-	-	1
Charge to income statement	1	-	-	-	1	5	7
Credit to other comprehensive income	(1)	-	-	-	-	-	(1)
At 31 December 2018	-	3	(7)	1	1	19	17

Critical accounting policy: Deferred tax

The deferred tax asset of £17 million as at 31 December 2018 (2017 - £10 million) principally comprises losses 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.

Judgement - The Bank has considered their carrying value as at 31 December 2018 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 legislation, tax losses do not expire and can be carried forward indefinitely. In periods from April 2016, the Finance Act 2016 limits the offset of losses carried forward by UK banks to 25% of profits. The main rate of UK Corporation Tax reduced from 20% to 19% from 1 April 2017 and will reduce to 17% from 1 April 2020. Under the Finance (No 2) Act 2015, tax losses carried forward at 31 December 2015 are given credit in future periods at the main rate of UK corporation tax, excluding the banking surcharge rate (8%) introduced by the Act. Deferred tax assets and liabilities at 31 December 2018 take into account the reduced rates in respect of tax losses and where appropriate, the banking surcharge inclusive rate in respect of other banking temporary differences.

Unrecognised deferred tax

Deferred tax assets of £9 million (2017 - £15 million) have not been recognised in respect of tax losses where doubt exists over the availability of future taxable profits.

7. Derivatives

The Bank transacts derivatives as principal either as a trading activity or to manage balance sheet foreign exchange, interest rate and credit risk.

The following table shows the notional amount and fair value of the Bank's derivatives.

	2018			2017		
	Notional amounts £m	Assets £m	Liabilities £m	Notional amounts £m	Assets £m	Liabilities £m
Over-the-counter derivatives						
Foreign exchange contracts	17	1	-	240	3	4
Interest rate contracts	2,408	4	9	3,360	6	14
	2,425	5	9	3,600	9	18
Amounts above include :						
Due from/to fellow subsidiaries	2,425	5	9	3,537	8	18

8. Financial instruments – classification

The following tables analyse the Bank's financial assets and financial liabilities in accordance with the categories of financial instruments in IFRS9/IAS 39. Assets and liabilities outside the scope of IFRS9/IAS 39 are shown within other assets/liabilities.

2018	Mandatory fair value through profit or loss (MFVPL) £m	Held-for-trading £m	Designated at fair value through profit or loss (DFVPL) £m	Amortised cost £m	Other assets / liabilities £m	Total £m
Assets						
Cash and balances at central banks	-	-	-	1,063	-	1,063
Derivatives	5	-	-	-	-	5
Loans to banks - amortised cost(1)	-	-	-	58	-	58
Loans to customers - amortised cost	-	-	-	3,699	-	3,699
Amounts due from holding companies and fellow subsidiaries	-	-	-	6,750	-	6,750
Other assets	-	-	-	-	66	66
	5	-	-	11,570	66	11,641
Liabilities						
Bank deposits - amortised cost(2)	-	-	-	5	-	5
Customer deposits - amortised cost	-	-	-	6,963	-	6,963
Customer deposits - DFVPL(3)	-	-	10	-	-	10
Amounts due to holding companies and fellow subsidiaries	-	-	-	3,299	-	3,299
Derivatives	-	9	-	-	-	9
Other liabilities	-	-	-	821	48	869
	-	9	10	11,088	48	11,155
Equity						486
						11,641

2017	Held-for-trading £m	Designated at fair value through profit or loss (DFVPL) £m	Loans and receivables £m	Amortised cost £m	Non financial assets / liabilities £m	Total £m
Assets						
Cash and balances at central banks	-	-	1,032	-	-	1,032
Derivatives	9	-	-	-	-	9
Loans to banks - amortised cost(1)	-	-	58	-	-	58
Loans to customers - amortised cost	-	-	3,736	-	-	3,736
Amounts due from holding companies and fellow subsidiaries	-	-	7,091	-	-	7,091
Other assets	-	-	-	-	61	61
	9	-	11,917	-	61	11,987
Liabilities						
Banks deposits - amortised cost(2)	-	-	-	21	-	21
Customer deposits - amortised cost	-	-	-	7,786	-	7,786
Customer deposits - DFVPL(3)	-	36	-	-	-	36
Amounts due to holding companies and fellow subsidiaries	-	-	-	2,780	-	2,780
Derivatives	18	-	-	-	-	18
Other liabilities	-	-	-	803	57	860
	18	36	-	11,390	57	11,501
Equity						486
						11,987

Notes:

(1) Includes items in the course of collection from other banks of £38 million (2017 - £41 million).

(2) Includes items in the course of transmission to other banks of £5 million (2017 - £16 million).

(3) The carrying amount of customer deposits designated at fair value through profit or loss is equal to the principal amount (2017 - £1 million lower). No amounts have been recognised (2017 - nil) in profit or loss for changes in credit risk associated with these liabilities.

(4) There are no financial instruments that are subject to IAS 32 (on balance sheet) netting arrangements or subject to enforceable master netting instruments or similar agreements that are not set off in accordance with IAS 32.

8. Financial instruments - classification continued

Amounts due to/from holding companies and fellow subsidiaries comprise:

	2018 £m	2017 £m
Amounts due from holding companies and fellow subsidiaries		
Loans to banks - amortised cost	6,750	7,091
Amounts due to holding companies and fellow subsidiaries		
Banks deposits - amortised cost	3,190	2,654
Customer deposits - amortised cost	2	19
Subordinated liabilities	107	107
	3,299	2,780

Financial instruments – valuation

Critical accounting policy: Fair value - financial instruments

In accordance with Accounting policies 12 and 19, financial instruments 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 Bank maximises the use of relevant observable inputs and minimises the use of unobservable inputs.

Where the Bank 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.

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.

Valuation of financial instruments carried at fair value

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 collateralised loan obligations (CLO), 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's valuation, is not based on observable market data. Examples include cash instruments which trade infrequently, certain syndicated and commercial mortgage loans and derivatives with unobservable model inputs.

The following tables show the financial instruments carried at fair value by valuation method:

	2018				2017			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Assets								
Derivatives	-	1	4	5	-	3	6	9
Total	-	1	4	5	-	3	6	9
Liabilities								
Customer deposits - DFVPL	-	10	-	10	-	36	-	36
Derivatives	-	2	7	9	-	4	14	18
Total	-	12	7	19	-	40	14	54

8. Financial instruments – valuation continued

The Bank places reliance on the Ring Fenced Bank independent price verification (IPV) process and the Bank eliminates its market risk on its portfolios by entering into back to back positions with NatWest Bank plc.

Valuation Techniques

The fair value of instruments are derived 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. Examples include equities and most debt securities.

Products that are priced using models range in complexity from comparatively vanilla 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.

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:

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 generally 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.

Price volatilities and correlations - volatility is a measure of the tendency of a price to change with time. Correlation measures the degree to 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 pre-payable instruments that are not quoted in active markets, The Bank 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

The 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.

IPV is a key element of the control environment. Valuations are first performed by the business which owns 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 month, for all fair value positions. The IPV control includes formalised reporting and escalation of any valuation differences in breach of established thresholds.

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 Ring Fenced Bank Executive Valuation Committee meets monthly to address key material and subjective valuation issues, to review items escalated by valuation committees and to discuss other relevant matters including prudential valuation.

Initial classification of a financial instrument is carried out following the principles in IFRS 13. 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.

In order to determine a reliable fair value, where appropriate, management applies valuation adjustments to the pricing information gathered from the above sources.

8. Financial instruments – valuation continued

Valuation Control continued

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 the assessment of factors that market participants would consider in setting a price.

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 valuation is derived from the use of the independent market inputs calculated using NatWest'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. 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.

8. Financial instruments – valuation continued

The following tables show the carrying values and the fair values of financial instruments on the balance sheet carried at amortised cost. The fair value of the cash and balances at central banks has been determined using procedures consistent with the requirements of level 2 valuation methodologies, as set out above. All other balances have been fair valued using procedures that fall within level 3 of the fair value methodologies.

	2018		2017	
	Carrying value	Fair value	Carrying value	Fair value
	£m	£m	£m	£m
Financial assets				
Cash and balances at central banks	1,063	1,063	1,032	1,032
Loans to banks - amortised cost	58	58	58	58
Loans to customers - amortised cost	3,699	3,641	3,736	3,712
Amounts due from holding companies and fellow subsidiaries				
- Loans to banks - amortised cost	6,750	6,750	7,091	7,091
Financial liabilities				
Bank deposits - amortised cost	5	5	21	21
Customer deposits - amortised cost	6,963	6,963	7,786	7,786
Amounts due to holding companies and fellow subsidiaries				
- Bank deposits - amortised cost	3,190	3,190	2,654	2,654
- Customer deposits - amortised cost	2	2	19	19
- Subordinated liabilities	107	98	107	97
Other liabilities - notes in circulation	821	821	803	803

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 loans to banks and customers measured at amortised cost, the Bank's loans are segregated into appropriate portfolios reflecting the characteristics of the constituent loans.

The principal method used to estimate fair value in the Bank is to discount expected cash flows at the current offer rate for the same or similar products.

Bank and customer deposits

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

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.

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 12 months	More than 12 months	Total	Less than 12 months	More than 12 months	Total
	£m	£m	£m	£m	£m	£m
Assets						
Cash and balances at central banks	1,063	-	1,063	1,032	-	1,032
Derivatives	1	4	5	4	5	9
Loans to banks - amortised cost	58	-	58	58	-	58
Loans to customers - amortised cost	844	2,855	3,699	953	2,783	3,736
Amounts due from holding companies and fellow subsidiaries	4,833	1,917	6,750	5,203	1,888	7,091

8. Financial instruments – maturity analysis continued

Remaining maturity continued

	2018			2017		
	Less than 12 months	More than 12 months	Total	Less than 12 months	More than 12 months	Total
	£m	£m	£m	£m	£m	£m
Liabilities						
Bank deposits - amortised cost	5	-	5	21	-	21
Customer deposits - amortised cost	6,963	-	6,963	7,776	10	7,786
Customer deposits - DFVPL	10	-	10	36	-	36
Amounts due to holding companies and fellow subsidiaries	2,976	323	3,299	2,348	432	2,780
Derivatives	2	7	9	6	12	18

On balance sheet liabilities

The following table shows, by contractual maturity, the undiscounted cash flows payable from the balance sheet date, including future receipts/payments of interest. The balances in the tables below do not agree directly to the Bank balance sheet as the tables include all cash flows relating to principal and future coupon payments presented on an undiscounted basis.

2018	0–3 months £m	3–12 months £m	1–3 years £m	3–5 years £m	5–10 years £m	10–20 years £m	>20 years £m
Liabilities by contractual maturity							
Bank deposits - amortised cost	5	-	-	-	-	-	-
Customer deposits - amortised cost	6,865	109	-	-	-	-	-
Customer deposits - DFVPL	10	-	-	-	-	-	-
Amounts due to holding companies and fellow subsidiaries	2,757	220	201	16	3	5	107
Other liabilities	821	-	-	-	-	-	-
	10,458	329	201	16	3	5	107
Guarantees and commitments notional amount							
Guarantees(1)	22	-	-	-	-	-	-
Commitments(2)	909	-	-	-	-	-	-
	931	-	-	-	-	-	-
2017							
Liabilities by contractual maturity							
Bank deposits - amortised cost	21	-	-	-	-	-	-
Customer deposits - amortised cost	7,626	121	39	-	-	-	-
Customer deposits - DFVPL	36	-	-	-	-	-	-
Amounts due to holding companies and fellow subsidiaries	2,228	120	311	1	18	5	107
Other liabilities	803	-	-	-	-	-	-
	10,714	241	350	1	18	5	107
Guarantees and commitments notional amount							
Guarantees(1)	22	-	-	-	-	-	-
Commitments(2)	893	-	-	-	-	-	-
	915	-	-	-	-	-	-

Notes:
(1) The Bank is only called upon to satisfy a guarantee when the guaranteed party fails to meet its obligations. The Bank expects most guarantees it provides to expire unused.
(2) The Bank 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. The Bank does not expect all facilities to be drawn, and some may lapse before drawdown.

The tables above show the timing of cash outflows to settle financial liabilities. 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 repayment is triggered by, or is subject to, specific criteria such as market price hurdles being reached, the liability is included at the earliest possible date that the conditions could be fulfilled without considering the probability of the conditions being met.

9. Loan impairment provisions

Loan exposure and impairment metrics

The table below summarises loans and related credit impairment 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 £m	1 January 2018 £m	31 December 2017 £m
Loans			
Stage 1	3,053	3,264	
Stage 2	571	531	
Stage 3	179	116	
Total	3,803	3,911	3,913
ECL provisions			
ECL provisions			
-Stage 1	5	5	
-Stage 2	23	18	
-Stage 3	55	92	
-Inter-Group	1	-	
Total	84	115	119
ECL provision coverage			
-Stage 1 %	0.17	0.15	
-Stage 2 %	4.10	3.39	
-Stage 3 %	30.91	79.61	
Total	2.20	2.94	3.04
ECL charge/(release)			
-Third party	7		
-Inter-Group	(1)		
Total	6		(6)
ECL loss rate (%)	0.15		(0.15)
Amounts written off (total)	39		46

Amounts due from holding companies and fellow subsidiaries are all considered as Stage 1.

Collateral and credit enhancement

For information on collateral and credit enhancement held as security, refer to risk management – credit risk on page 67.

Critical accounting estimates

The Bank'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 and Accounts. In 2018 the loan impairment provisions have been established in accordance with IFRS 9. Accounting policy 13 sets out how the expected loss approach is applied. At 31 December 2018, loan impairment provisions amounted to £84 million (2017 - £119 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's original effective interest rate.

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.

9. Loan impairment provisions continued

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. Further details are given in Note 14 to the accounts.

10. Other assets

	2018 £m	2017 £m
Prepayments	4	2
Accrued income	1	2
Other assets	1	2
Deferred taxation (Note 6)	17	10
Property, plant and equipment (Note 11)	42	45
Assets held for sale	1	-
	66	61

11. Property, plant and equipment

2018	Freehold land and buildings £m	Leases of 50 years or more unexpired £m	Leases of 50 years or less unexpired £m	Computer and other equipment £m	Total £m
Cost or valuation:					
At 1 January	37	19	9	53	118
Transfer to assets held for sale	(1)	(1)	-	-	(2)
Transfers from fellow subsidiaries	-	-	1	-	1
Additions	1	-	1	1	3
Disposals and write-offs of fully depreciated assets	-	-	(2)	(6)	(8)
At 31 December	37	18	9	48	112
Accumulated impairment and depreciation:					
At 1 January	14	4	7	48	73
Transfer to assets held for sale	(1)	-	-	-	(1)
Disposals and write-offs of fully depreciated assets	-	-	(1)	(4)	(5)
Depreciation charge for the year	1	1	-	1	3
At 31 December	14	5	6	45	70
Net book value at 31 December 2018	23	13	3	3	42
2017					
Cost or valuation:					
At 1 January	35	20	9	51	115
Additions	3	-	-	2	5
Disposals and write-offs of fully depreciated assets	(1)	(1)	-	-	(2)
At 31 December	37	19	9	53	118
Accumulated impairment, depreciation and amortisation:					
At 1 January	14	5	6	47	72
Disposals and write-offs of fully depreciated assets	(1)	(1)	-	-	(2)
Depreciation charge for the year	1	-	1	1	3
At 31 December	14	4	7	48	73
Net book value at 31 December 2017	23	15	2	5	45

12. Other liabilities

	2018 £m	2017 £m
Notes in circulation	821	803
Current tax	12	15
Accruals	8	13
Deferred income	2	2
Provisions for liabilities and charges	20	25
Other liabilities	6	2
	869	860

The following amounts are included within provisions for liabilities and charges:

	Property £m	Payment protection insurance £m	Global Restructuring Group (GRG) £m	Other £m	Total £m
Provisions at 1 January 2017	3	9	6	8	26
Transfer from accruals	-	-	-	2	2
Charge to income statement	4	-	-	5	9
Utilised in the year	-	(1)	(2)	(5)	(8)
Release to income statement	(1)	-	-	(3)	(4)
Provisions at 31 December 2017	6	8	4	7	25
Implementation of IFRS 9 on 1 January 2018	-	-	-	2	2
Transfer from accruals	-	-	-	1	1
Charge to income statement	2	2	3	5	12
Utilised in the year	(2)	(6)	(2)	(6)	(16)
Release to income statement	(1)	-	-	(3)	(4)
Provisions at 31 December 2018	5	4	5	6	20

Property provisions

The property provisions principally comprise provisions for onerous lease contracts. The timing for such payments is uncertain. Provision is made for future rentals payable in respect of vacant leasehold property and for any shortfall where leased property is sub-let at a rental lower than the lease rentals payable by the Bank.

Payment protection insurance (PPI)

The PPI provision was established to reflect future costs as estimated using current experience of PPI complaints received. The eventual cost is dependent upon complaint volumes, uphold rates and average redress costs. Assumptions relating to these are inherently uncertain and the ultimate financial impact may be different from the amount provided. The remaining provision of £4 million represents expected costs at current utilisation rates.

Global Restructuring Group (GRG)

The Bank holds a provision in respect of the FCA review of the treatment of SME customers, relating to the automatic refund of complex fees for SME customers that were in GRG between 2008 and 2013, additional redress costs arising from a new complaints process and the associated operational costs. Background information in relation to the FCA review of SME customers is given in note 15 (see page 82).

Critical accounting policy: Provision for liabilities

Judgement is involved in determining whether an obligation exists, and in estimating the probability, timing and amount of any outflows. Where the Bank 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.

13. Share capital and other equity

	Allotted, called up and fully paid		Authorised	
	2018 £m	2017 £m	2018 £m	2017 £m
Equity shares:				
Ordinary shares of £1	254	254	2,000	2,000
Equity preference shares:				
Non-cumulative redeemable preference shares of €1 each	-	-	448	444
Total share capital	254	254	2,448	2,444

	Allotted, called up and fully paid		Authorised	
Number of shares	2018 millions	2017 millions	2018 millions	2017 millions
Equity shares:				
Ordinary shares of £1	254	254	2,000	2,000
Equity preference shares:				
Non-cumulative redeemable preference shares of €1 each	-	-	500	500
Total share capital	254	254	2,500	2,500

Paid-in equity - comprises equity instruments issued by the company other than those legally constituted as shares.

	2018 £m	2017 £m
Additional Tier 1 loan		
£60 million 7.4% perpetual loan repayable from July 2022	60	60

The coupons on this instrument are non-cumulative and payable at the company's discretion. In the event of winding up any amounts outstanding on the loan will be subordinated. While taking the legal form of debt this loan is classified as equity under IAS 32 'Financial Instruments: Presentation'.

14. Risk management

Presentation of information

The risk management function of the Bank is fully integrated with the risk management function of the RBS Group. The disclosures in this section discuss the RBS Group risk management policies, procedures, frameworks and models as they apply to the Bank.

Risk management framework (unaudited)

Introduction

The Group 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.

The RBS Group'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 the RBS Group 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 the RBS Group'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.

The Group 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 the Group is exposed.

The Group 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.

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

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

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

All the Group 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. The Group constantly monitors its risk profile against its defined risk appetite and limits, taking action when required to balance risk and return.

The alignment between top and emerging risks, material risks and strategic risks is being assessed to ensure a clear linkage between external threats – such as climate change – and the Group's internal risk profile.

Risk culture

A strong risk culture is essential if the Group is to achieve its ambition to build a truly customer-focused bank. RBS Group'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.

14. Risk management - Risk management framework (unaudited) continued

Risk culture continued

To achieve this, the Group 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. These include: taking personal accountability and proactively managing risk; respecting risk management and the part it plays in daily work; understanding clearly the risks associated with individual roles; aligning decision-making to the Group'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.

The RBS Group'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 the Group to benchmark both internally and externally. This allows the Group 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 the RBS Group's learning strategy.

The Group 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. Mandatory learning for all staff is focused on keeping employees, customers and the Group safe.

Code of Conduct

Aligned to the RBS Group'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 the Group values guide day-to-day decisions:

- Does what I am doing keep our customers and the Group 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?

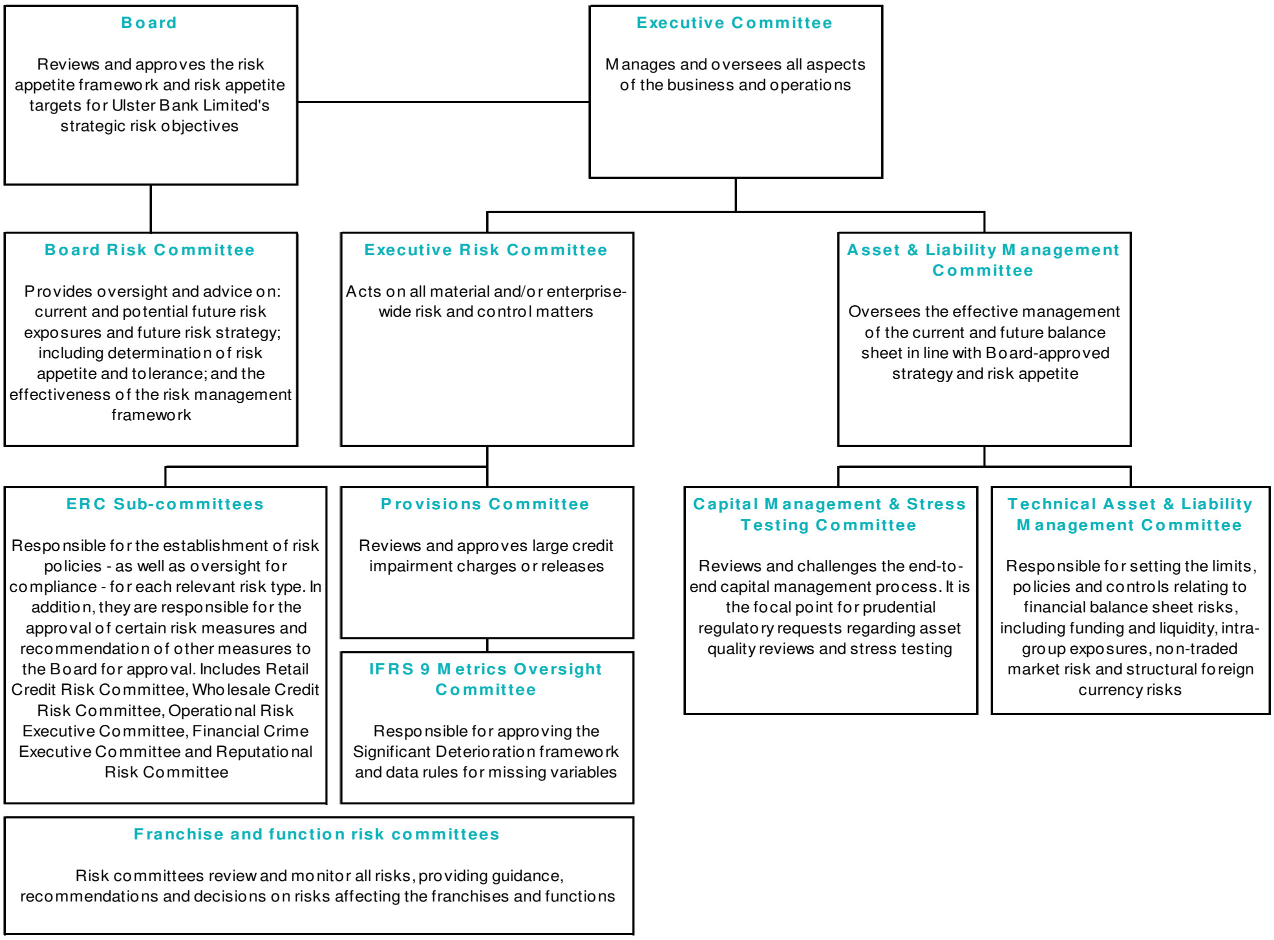
Each of the five questions is a prompt to think about how the situation fits with the RBS Group's values. It ensures that employees can think through decisions that do not have a clear answer, and guides their judgements.

If conduct falls short of the RBS Group's required standards, the accountability review process is used to assess how this should be reflected in pay outcomes for those individuals concerned. RBS Group-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.

14. **Risk management -** Risk management framework (unaudited) continued

Committee structure

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



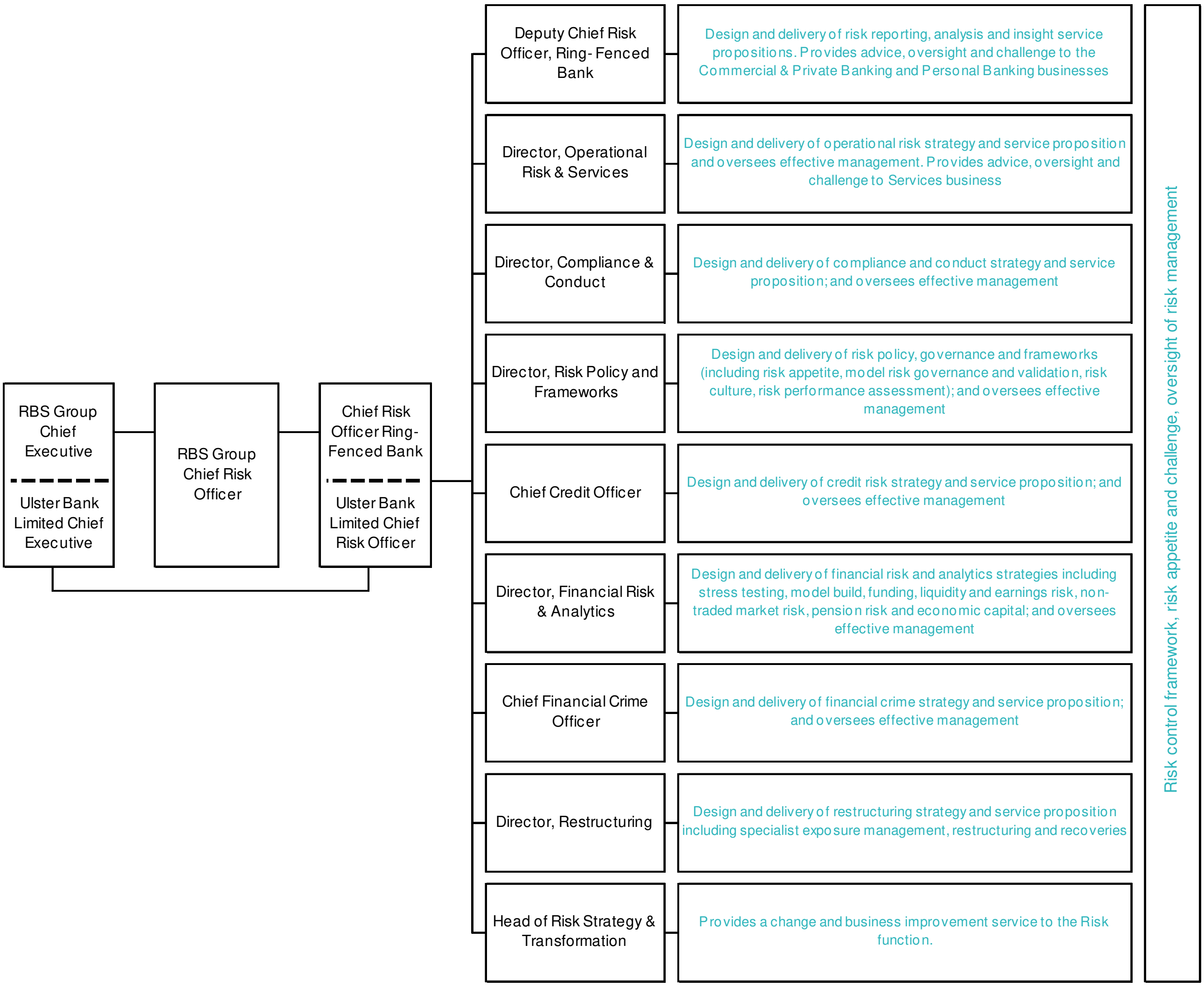
Note:

(1) The diagram above illustrates the risk governance structure of the Bank. The IFRS 9 Metrics Oversight Committee has delegated authority from the Provisions Committee to approve the Significant Deterioration framework, the data rules for missing variables, materiality decisions relating to the expected credit loss calculation, adjustments relating to the expected credit loss calculation if necessary, and changes in expected credit loss provision calculation methodology.

14. Risk management – Risk management framework (unaudited) continued

Risk management structure

The diagram illustrates the Bank's risk management structure in 2018 and key risk management responsibilities.



Notes:

1. The Bank is a wholly-owned subsidiary of NatWest Holdings Limited, which is the ring-fenced sub-Group of the RBS Group. The diagram above illustrates the risk management structure of the Bank.
2. The Ulster Bank Limited CRO reports directly to i) the Ulster Bank Limited CEO, whose role is also undertaken by the same individual who undertakes the roles of NatWest Holdings CEO and RBS Group CEO; and ii) the NatWest Holdings CRO, albeit given both these CRO roles are undertaken by the same individual, in effect, the reporting line is to the RBS Group CRO. There is a further secondary reporting line to the chair of the Ulster Bank Limited BRC and a right of access to the Committee, including the deputy chair, but noting the constituent members of the Committee mirror those of the NatWest Holdings BRC.
3. The Risk function is independent of the franchises and is structured by risk discipline to facilitate effective risk management. Risk committees in the customer businesses and key functional risk committees oversee risk exposures arising from management and business activities and focus on ensuring that these are adequately monitored and controlled.

14. Risk management - Risk management framework (unaudited) continued

Three lines of defence

The Group 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 in the Group, 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 and Prudential Regulation Authority on specific risks and controls.

Risk appetite

Risk appetite defines the level and types of risk the Group 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 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 RBS 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 the RBS Group 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 the RBS Group 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 the Group is well placed to meet its priorities and long-term targets even under challenging economic environments. It is the basis on which the Group remains safe and sound while implementing its strategic business objectives.

14. Risk management - Risk management framework (unaudited) continued

Establishing risk appetite

The Group'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 RBS Group 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.

The Group policies directly support the qualitative aspects of risk appetite, helping to rebuild and maintain stakeholder confidence in the Group'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 the non-trading portfolio.
- 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 the Group faces each day are detailed in the Risk Directory. This provides a common risk language to ensure consistent terminology is used across the RBS Group. 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.

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).

14. Risk management - Risk management framework (unaudited) continued

Model risk continued

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

Model Risk Governance

Model Risk Governance is responsible for setting policy and providing a governance framework for all of the Group'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, the RBS Group'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 the RBS Group's portfolio of models to ensure they appropriately capture underlying business rationale.

Stress testing

Stress testing: capital management

Stress testing is a key risk management tool and a fundamental component of the RBS Group's approach to capital management. It is used to quantify, evaluate and understand the potential impact of specified changes to risk factors on the financial strength of the RBS Group, 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 the RBS Group-specific vulnerabilities and risks. • Define and calibrate scenarios to examine risks and vulnerabilities. • Formal governance process to agree scenarios.
Assess impact	• Translate scenarios into risk drivers. • Assess impact to positions, income and costs. • Impact assessment captures input from across the RBS Group.
Calculate results and assess implications	• Aggregate impacts into overall results. • Results form part of risk management process. • Scenario results are used to inform the RBS Group's business and capital plans.
Develop and agree management actions	• Scenario results are analysed by subject matter experts and appropriate management actions are then developed. • 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.

14. Risk management - Risk management framework (unaudited) continued

Stress testing: capital management continued

Stress testing is used widely across the RBS Group. Key areas are summarised in the diagram below:

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 the RBS Group'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 the RBS Group's recovery plan.

Regular 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 the Group to examine potential vulnerabilities in its business model more fully.

Capital sufficiency - going concern forward-looking view

Going concern capital requirements are examined on a forward-looking basis – including as part of the annual budgeting process – by assessing the resilience of capital adequacy and leverage ratios under hypothetical future states. A range of future states are examined.

In particular, capital requirements are assessed:

- Based on a forecast of future business performance given expectations of economic and market conditions over the forecast period.
- Based on a forecast of 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 the Group 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, the Group 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 the RBS Group but also by the regulators to set specific capital buffers. The RBS Group 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, the RBS Group took part in the Bank of England and European Banking Authority stress tests.

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 the RBS Group'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 the RBS Group-specific capital requirements through the Pillar 2 framework.

Capital allocation

The Group 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.

14. Risk management -Risk management framework (unaudited) continued

Governance continued

The Board approves the Bank's capital plans 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, the Group undertakes the Individual Liquidity Adequacy Assessment Process (ILAAP). This includes assessment of net stressed liquidity outflows. A range of extreme but plausible stress scenarios on the liquidity position over various time horizons are considered, as outlined below.

Type	Description
Idiosyncratic scenario	The market perceives the Group to be suffering from a severe stress event, which results in an immediate assumption of increased credit risk or concerns over solvency.
Market-wide scenario	A market stress event affecting all participants in a market through contagion, counterparty failure and other market risks. The Group 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 Group in conjunction with a broader market stress, causing wider damage to the market and financial sector and severely affecting funding markets and assets.

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

Stress testing - recovery and resolution planning

The Group maintains a recovery plan that sets out credible recovery options that could be implemented in the event of a severe stress to restore its business to a stable and sustainable condition, focusing on addressing the capital and liquidity position of the Group and its constituent legal entities.

The recovery plan sets out a range of triggers that activate the implementation of the recovery plan and sets out the operational plan for implementation of appropriate recovery options.

The recovery plan is a key component of risk management including the framework for managing liquidity, funding and capital.

The recovery plan is prepared and updated annually and approved by the Board. Following Board approval it is also submitted to the PRA each year. The recovery plan is assessed for appropriateness on an ongoing basis, and is maintained in line with regulatory requirements.

Resolution would be implemented if the Group was assessed by the UK authorities to have failed and the appropriate regulator placed the Group into resolution. The process of resolution is owned and implemented by the Bank of England (as UK Resolution Authority).

The Group is working with UK and global regulators to ensure that it is compliant with the principles of resolution planning. This includes, but is not limited to, establishing appropriate loss-absorbing capacity and ability to maintain operational continuity in resolution, across all of RBS Group's main legal entities, including the Bank. Reflecting the degree of change required to ensure the Group is resolvable, a multi-year programme is in place to develop resolution capability and meet regulatory requirements.

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 the Group'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, the Group produces its own internal scenario analysis as part of the financial planning cycles.

Non-traded market risk exposures 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.

14. Risk management -Risk management framework (unaudited) continued

Stress testing: market risk continued

The ICAAP methodology captures at least ten years of historical volatility, produced with 99% confidence level.

Methodologies are reviewed by Model Risk and the results are approved by the Technical Asset & Liability Management Committee.

Capital, liquidity and funding risk

Definitions

Capital consists of reserves and instruments issued that are available that 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 to count 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 with 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 determination of what instruments and financial resources are eligible to be counted as capital is laid down by applicable regulation. Capital is categorised by applicable regulation under two tiers (Tier 1 and Tier 2) according to the ability to absorb losses on either a going or gone concern basis, degree of permanency and the ranking of absorbing losses. 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 Bank'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 RBS 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 RBS Group has failed, or is likely to fail.

Liquidity

The Group maintains a prudent approach to the definition of liquidity resources. The Group manages its liquidity to ensure it is always available when and where required, taking into account regulatory, legal and other constraints. Liquidity risk within the Bank is managed as part of the UK domestic liquidity subgroup (DoLSub), which is regulated by the PRA and comprises the Group's four licensed deposit taking UK banks within the ring fence: The Royal Bank of Scotland plc, National Westminster Bank Plc, Ulster Bank Limited and Coutts & Company.

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

- Primary liquid assets include cash and balances at central banks.
- Secondary liquid assets are eligible as collateral for local central bank liquidity facilities. These assets include 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

The Group maintains a diversified set of funding sources. The Bank's principal source of funding is customer deposits.

Managing capital requirements: regulated entities

In line with paragraph 135 of IAS 1 'Presentation of Financial Statements', the Bank manages capital having regard to regulatory requirements. Regulatory capital is monitored and reported on an individual regulated bank legal entity basis which is the CRR transitional basis. The RBS Group itself is monitored and reported on a consolidated and CRR end-point basis.

Capital management (unaudited)

Capital management is the process by which the Bank ensures that it has sufficient capital and other loss absorbing instruments to operate effectively including meeting minimum regulatory requirements, operating within Board approved risk appetite, maintaining credit ratings and supporting strategic goals.

14. Risk management- Capital, liquidity and funding risk continued

Capital management (unaudited) continued

Capital management is critical in supporting the Bank's businesses and is also considered at Group level. It is enacted through an RBS Group-wide end to end framework.

Capital planning is integrated into the RBS Group's wider annual budgeting process and is assessed and updated at least monthly for the Bank. This is summarised below.

Produce capital plans ↓	• Capital plans are produced for the RBS 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 through the ICAAP or for regulatory purposes. • Shorter term forecasts are developed frequently in response to actual performance, changes in internal and external business environment and to manage risks and opportunities.
Assess capital Adequacy ↓	• Capital plans are developed to maintain capital of sufficient quantity and quality to support the RBS Group's business 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 RBS Group including from businesses.
Inform capital actions	• Capital planning informs potential capital actions including managing capital through buy backs, redemptions or through new issuance to external investors or via internal transactions. • Decisions on capital actions will be influenced by strategic and regulatory requirements, the cost and prevailing market conditions. • As part of capital planning, the RBS Group 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 and funding management follows a similar process to that outlined above for capital.

Liquidity risk management (unaudited)

The Group 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 size of the liquidity portfolio held in the UK DoLSub is determined by referencing the NatWest Holdings Group's liquidity risk appetite. The NatWest Holdings Group retains a prudent approach to setting the composition of the liquidity portfolio, which is subject to internal policies and limits over quality of counterparty, maturity mix and currency mix.

NatWest Bank manages the majority of the UK DoLSub's liquidity portfolio under the responsibility of the RBS Group Treasurer.

Ring-fencing implications

During 2018 NatWest Markets Plc ceased to form part of the UK DoLSub. The majority of the UK DoLSub liquidity portfolio is now held in NatWest Bank.

Funding risk management (unaudited)

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

The asset and liability types broadly match. Customer deposits provide more funding than customer loans utilise.

14. Risk management - Capital, liquidity and funding risk continued

Minimum capital requirements (unaudited)

Capital adequacy ratios

The Bank is subject to minimum requirements in relation to the amount of capital it must hold in relation to its RWAs. The table below summarises the minimum ratios of capital to RWAs that the Bank is expected to have to meet once CRR is fully implemented by 1 January 2019.

Type	CET1	Total Tier 1	Total capital
Minimum capital requirements	4.5%	6.0%	8.0%
Capital conservation buffer	2.5%	2.5%	2.5%
UK countercyclical capital buffer (1)	0.9%	0.9%	0.9%
Total (2)	7.9%	9.4%	11.4%

Notes:
1. The institution specific countercyclical capital buffer requirement is based on the weighted average of geographical exposures. The Financial Policy Committee (FPC) sets the UK countercyclical capital buffer, which is currently 1.0% (effective from November 2018). The rate had previously increased from 0.0% to 0.5% (effective June 2018).
2. The minimum requirements do not include any capital that the Bank may be required to hold as a result of the Pillar 2 assessment.

Leverage ratio

In November 2017, the European Commission published a proposal for the adoption of a legally binding 3% of Tier 1 capital minimum leverage ratio as part of the CRR 2 package of legislation. There remains considerable uncertainty regarding the timing of the implementation of CRR 2 proposals and at present there is no binding minimum ratios of capital to leverage exposure that applies to individual bank entities as regulated by the PRA in the UK.

Liquidity and funding ratios (unaudited)

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

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

Notes:
1. BCBS issued its final recommendations for the implementation of the net stable funding ratio in October 2014, proposing an implementation date of 1 January 2018 by which time banks were expected to meet and maintain a ratio of 100%. In November 2016, the European Commission (EC) included a net stable funding ratio of 100% as part of the CRR 2 package of legislative proposals. The timing of binding NSFR coming into force in the European Union and United Kingdom remains subject to uncertainty. In the meantime, RBS Group uses the definitions from the BCBS guidelines, and its own interpretations, to calculate the NSFR. RBS Group's ratios may not be comparable with those of other financial institutions.

14. Risk management - Capital, liquidity and funding risk continued

Measurement

Capital resources (unaudited)

Under Capital Requirements Regulation (CRR), regulators within the European Union monitor capital and leverage on a legal entity basis, with local transitional arrangements on the phasing in of end-point CRR. The capital resources, leverage and RWAs based on the relevant transitional basis for the Bank are set out below.

	2018 £m	2017 £m
Shareholders' equity	486	486
Paid-in equity	(60)	(60)
	426	426
Regulatory adjustments and deductions		
Deferred tax assets	(17)	(10)
Excess of expected losses over provisions	-	(12)
Other adjustments for regulatory purposes	(46)	(40)
	(63)	(62)
CET1 capital	363	364
Additional Tier 1 (AT1) capital		
Eligible AT1	60	60
Tier 1 capital	423	424
Qualifying Tier 2 capital		
Qualifying items and related share premium	107	107
Excess provisions over expected losses	3	-
Tier 2 capital	110	107
Total regulatory capital	533	531
RWAs		
Credit risk		
- non-counterparty	2,051	1,960
- counterparty	6	7
Market risk	1	-
Operational risk	330	277
Total RWAs	2,388	2,244
Risk asset ratios	%	%
CET1	15.20%	16.20%
Tier 1	17.70%	18.90%
Total	22.30%	23.70%

In the management of capital resources, the Bank is governed by the RBS Group's 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, the Group 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, excluding capital buffers should not be less than 8% with a Common equity Tier 1 component of not less than 4%. The Bank has complied with the PRA's capital requirements throughout the year.

14. **Risk management -** Capital, liquidity and funding risk continued

Contractual maturity

The table shows the residual maturity of financial instruments, based on contractual date of maturity. Mandatory fair value through profit or loss (MFVPL) 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.

	Other than MFVPL and HFT												
	Less than 1 month	1–3 months	3–6 months	6 months-1 year	Sub total	1–3 years	3–5 years	More than 5 years	Total excluding MFVPL and HFT	MFVPL and HFT	Impairment provisions	Amounts due from/to holding companies and fellow subsidiaries	Total
2018	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Cash and balances at central banks	1,063	-	-	-	1,063	-	-	-	1,063	-	-	-	1,063
Derivatives	-	-	-	-	-	-	-	-	-	5	-	-	5
Loans to banks - amortised cost	44	-	14	-	58	-	-	-	58	-	-	-	58
Loans to customers - amortised cost	415	218	112	182	927	629	556	1,670	3,782	-	(83)	-	3,699
Total financial assets	1,522	218	126	182	2,048	629	556	1,670	4,903	5	(83)	6,750	11,575
2017													
Total financial assets	1,502	216	103	252	2,073	648	466	1,758	4,945	9	(119)	7,091	11,926
Bank deposits - amortised cost	5	-	-	-	5	-	-	-	5	-	-	-	5
Customer deposits - amortised cost	6,795	65	48	55	6,963	-	-	-	6,963	-	-	-	6,963
Customer deposits - DFVPL	2	4	3	1	10	-	-	-	10	-	-	-	10
Derivatives	-	-	-	-	-	-	-	-	-	9	-	-	9
Total financial liabilities	6,802	69	51	56	6,978	-	-	-	6,978	9	-	3,299	10,286
2017													
Total financial liabilities	7,661	60	52	60	7,833	10	-	-	7,843	18	-	2,780	10,641

14. Risk management continued

Credit risk

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

Sources of credit risk (unaudited)
The principal sources of credit risk are lending and related undrawn commitments. The Group is also exposed to settlement risk through foreign exchange and payments activities.

Risk governance (unaudited)
Credit risk management is led by the Chief Credit Officer (CCO). 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.

The CCO has overall responsibility for the credit risk function and chairs the Wholesale and Retail Credit Risk Committees. These committees review, recommend or approve risk appetite limits (depending on their materiality) within the appetite set by the Board.

The Provisions Committee has authority over provisions adequacy and approves proposals from business provisions committees in accordance with approval thresholds. The Provisions Committee is chaired either by the CCO or the Head of Provisions & Restructuring Credit.

Risk appetite (unaudited)
The Group'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 (e.g. strategic and emerging risks) that influence the ability to operate within risk appetite. Tools such as stress testing and economic capital are used to measure credit risk volatility and develop links between the credit risk appetite frameworks and risk appetite limits. The frameworks are supported by a suite of transaction acceptance standards that set out the risk parameters within which franchises should operate.

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

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

Framework	Basis for classification	
	Measure	Other
Single name concentration	Exposure	Risk – based on loss given default (LGD) for a given probability of default
Sector	Exposure	Risk – based on economic capital and other qualitative factors
Country	Exposure	Probability of default of a sovereign, average LGD
Product and asset class	Exposure	Risk – based on heightened risk characteristics

Risk controls (unaudited)
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 (unaudited)
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.

Risk models (unaudited)
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 ***(unaudited)***
Credit grades are assigned at customer level for Wholesale customers.

All credit grades map to both an internal 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%).

14. Risk management - Credit risk continued

Risk mitigation (unaudited)

Risk mitigation techniques, as set out in the appropriate credit policies, are used in the management of credit portfolios across the Group. 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 - The Group takes collateral in the form of residential property to mitigate the credit risk arising from mortgages. The Group values residential property during the loan underwriting process by either appraising properties individually or valuing them collectively using statistically valid models. The Group updates Northern Ireland residential property values quarterly using the UK House Price Index (published by the Land Registry).

The current indexed value of the property is a component of the expected credit loss provisioning calculation.

Commercial real estate valuations – The Group has a panel of chartered surveying firms that cover the spectrum of geography and property sectors in which the Group 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. 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. The current indexed value of the property is a component of the expected credit loss provisioning calculation.

Risk assessment and monitoring (unaudited)

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, the Group 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 the Group and other lenders).

The Group then sets its lending rules accordingly, developing different rules for different products.

The process is then largely automated, with each customer receiving an individual credit score that reflects both internal and external behaviours and this score is compared with the lending rules set. For relatively high-value, complex personal loans, including some residential mortgage lending, specialist credit managers make the final lending decisions. These decisions are made within specified delegated authority limits that are issued dependent on the experience of the individual.

Underwriting standards and portfolio performance are monitored on an ongoing basis to ensure they remain adequate in the current market environment and are not weakened materially to sustain growth.

Wholesale

Wholesale customers – including corporates, banks and other financial institutions – are grouped by industry sectors and geography as well as by product/asset class and are managed on an individual basis. Consideration is given to identifying groups of individual customers with sufficient inter-connectedness to merit assessment as a single risk.

A credit assessment is carried out before credit facilities are made available to customers. The assessment process is dependent on the complexity of the transaction.

For lower risk transactions below specific thresholds, credit decisions can be approved through self-sanctioning within the business. This process is facilitated through an auto-decision making system, which utilises scorecards, strategies and policy rules to provide a recommended credit decision. Such credit decisions must be within the approval authority of the relevant business sanctioner.

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.

14. Risk management – Credit risk continued

Risk assessment and monitoring (unaudited) continued

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 (unaudited)

Early Problem Identification

Personal credit risk has pre-emptive triggers in place to help identify customers that may be at risk of being in financial difficulty. These triggers are both internal, using our data systems 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 our Collections and Recoveries functions.

Personal customers experiencing financial difficulty are managed by the Collections function. If the Collections function is unable to provide appropriate support after discussing suitable options with the customer, management of that customer moves into Recoveries. 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 the Group 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.

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 (unaudited)

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 the Group. 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 the Group's default criteria (AQ10 exposures). Defaulted exposures are categorised as Stage 3 impaired for provisioning purposes.

Heightened Monitoring customers are performing customers that have met certain characteristics, which have led to significant credit deterioration. Collectively, characteristics reflect circumstances that may affect the customer's ability to meet repayment obligations. Characteristics include trading issues, covenant breaches, material PD downgrades and past due facilities. Heightened Monitoring customers require pre-emptive actions (outside the customer's normal trading patterns) to return or maintain their facilities within the bank's current risk appetite prior to maturity.

Risk of Credit Loss customers are performing customers that have met the criteria for Heightened Monitoring and also pose a risk of credit loss to the bank in the next 12 months (should mitigating action not be taken or not be successful).

Once classified as either Heightened Monitoring or Risk of Credit Loss, a number of mandatory actions are taken in accordance with policies. Actions include a review of the customer's credit grade, facility and security documentation and the valuation of security.

Depending 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.

14. Risk management - Credit risk continued

Problem debt management continued

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 the Group.

Appropriate corrective action is taken when circumstances emerge that may affect the customer's ability to service its debt (see 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 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 predominantly managed by the Restructuring team (excluding customers managed by PBB). The purpose of Restructuring is to protect the Bank'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

Forbearance takes place when a concession is made on the contractual terms of a loan/debt in response to a customer's financial difficulties.

The aim of forbearance is to support and restore the customer to financial health while minimising risk. To ensure that forbearance is appropriate for the needs of the customer, minimum standards are applied when assessing, recording, monitoring and reporting forbearance.

A loan/debt may be forborne more than once, generally where a temporary concession has been granted and circumstances warrant another temporary or permanent revision of the loan's terms.

In the Personal portfolio, loans are considered forborne until they meet the exit criteria set out by the European Banking Authority. These include being classified as performing for two years since the last forbearance event, making regular repayments and the loan/debt being less than 30 days past due. Exit criteria are not currently applied for Wholesale portfolios.

Types of forbearance

Personal

In the Personal portfolio forbearance may involve payment concessions and loan rescheduling (including extensions in contractual maturity) and/or capitalisation of arrears. 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 whilst 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, the Group 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.

14. Risk management - Credit risk continued

Provisioning for forbearance – Personal continued

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 (PBB collections function).

For Expected Credit Loss (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.

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

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 to Accounting policy 13 and Note 9 to the accounts).

Transition from IAS 39 to IFRS 9

In line with the Group, the Bank 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 (Note 21).

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.
- 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.
- Change in scope of impaired assets (Stage 3).
- Incorporation of forward-looking information, including multiple economic scenarios (MES). MES are assessed in order to identify non-linearity of losses in the portfolio.

Key differences in moving from IAS 39 to IFRS 9 on impairment loss

	£m
31 December 2017 - IAS 39 impairment provision	119
Impact of IFRS 9 - third party	(4)
1 January 2018 - IFRS 9 ECL	115

14. Risk management - Credit risk continued

Key elements of IFRS 9 impairment provisions

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 Group. 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 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 whilst 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 Group 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. The Group assumed a flat forward view 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 2 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 portfolio subject to this approach is Private Banking.
- 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

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 UK GDP, unemployment rate, House Price Index and Bank of England base rate.

In addition to some of these loss drivers, for Wholesale portfolios, World GDP is a primary loss driver.

Central base case economic scenario

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 the Group's financial planning. The key elements of the current economic base case, which includes forecasts over a five year forecast horizon, are summarised below.

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.

14. Risk management - Credit risk continued

Economic loss drivers continued

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.

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.

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

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.

Wholesale – the approach to MES is a Monte Carlo method that involves simulating a large number of alternative scenarios around the central scenario (adjusted for mean reversion) and averaging the losses and PD values for each individual scenario into unbiased expectations of losses (ECL) and PD.

The simulation of alternative scenarios does not occur on the level of the individual economic loss drivers but operates on the aggregate CCI described earlier. Since the existing Wholesale credit models for PD and LGD were already built within the CCI framework the chosen Monte Carlo method provided a conceptually rigorous but still efficient approach to implement the MES requirement.

The Monte Carlo MES approach increases Wholesale ECL for Stage 1 and Stage 2 by approximately 5% above the single, central scenario outcomes. No additional MES overlay was applied for Wholesale.

For both Personal and Wholesale, the impact from MES is factored in to account level PDs through scalars. These MES-adjusted PDs are used to assess whether a significant increase in credit risk has occurred.

Key economic loss drivers – average over the five year planning horizon (2019 to 2023 for 31 December 2018 and 2018 to 2022 for 1 January 2018) – in the most relevant planning cycle for the central base case and two upside and downside scenarios used for ECL modelling are set out below.

	31 December 2018					1 January 2018				
UK	Upside 2 %	Upside 1 %	Base %	Downside 1 %	Downside 2 %	Upside 2 %	Upside 1 %	Base %	Downside 1 %	Downside 2 %
GDP - change	2.6	2.3	1.7	1.3	0.9	2.2	1.9	1.7	1.5	1.3
Unemployment	3.3	3.8	4.9	5.6	6.7	5.0	5.2	5.3	5.4	5.5
HPI – change	4.6	3.6	1.7	0.9	(0.9)	4.2	3.4	3.1	2.9	2.7
Bank of England base rate	1.6	1.2	1.1	0.4	-	1.7	1.2	0.8	0.4	0.2
World GDP – change	3.9	3.3	2.8	2.4	2.1	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

14. Risk management - Credit risk continued

Probability weightings of scenarios

The Group's approach to IFRS 9 multiple economic scenarios involves selecting suitable 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.

UK economic uncertainty

The Bank's Annual Report and Accounts have been prepared during the run up to the UK leaving the European Union, a period of elevated uncertainty over the UK economic outlook. The Group's approach to capturing that elevated uncertainty is to apply an overlay to ECL that was calculated by referencing the RBS Group's stress testing results that capture key elements of 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 overlay of £1 million booked in the Bank in the third quarter of 2018 remained in place at the year end.

IFRS 9 credit risk modelling

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.

14. Risk management - Credit risk continued

Wholesale models

Wholesale PD models use the existing Credit Cycle Index (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 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.

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. The Group 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. The Group attribute changes in CCFs to changes in exposure management practices.

Therefore the Group does not include forward-looking economic information into projected CCF/EAD. To ensure CCF values reflect most recent exposure management practices, the Group update CCF coefficients in the model frequently (typically annually) using the last five years of observed data.

Governance and post model adjustments

The IFRS 9 PD, EAD and LGD models are subject to the Group's model monitoring and governance frameworks, which include approving post model adjustments calculated to incorporate the most recent data available and made on a temporary basis ahead of the underlying model parameter changes being implemented. These adjustments are subject to over-sight and governance by the Provisions Committee.

Significant increase in credit risk

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). The Group 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 the Group 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 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 $PD^{@DOIR}$

14. Risk management - Credit risk continued

Significant increase in credit risk continued

- 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 adverse credit bureau results in Personal.
- 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

The choice of initial recognition and asset duration is another critical judgement in determining the quantum of lifetime losses that apply.

- The date of initial recognition reflects the date that a transaction (or account) was first recognised on the balance sheet; the PD recorded at that time provides the baseline used for subsequent determination of SICR.
- For asset duration, the approach applied (in line with IFRS 9 requirements) is:
  - Term lending – the contractual maturity date, reduced for behavioural trends where appropriate (such as, expected pre-payment and amortisation).
  - Revolving facilities – for Personal portfolios (except credit cards), asset duration is based on behavioural life and this is normally greater than contractual life (which would typically be overnight). For Wholesale portfolios, asset duration is based on annual counterparty review schedules and will be set to the next review date.

In the case of credit cards, the most significant judgement is to reflect the operational practice of card reissuance and the associated credit assessment as enabling a formal re-origination trigger. As a consequence a capped lifetime approach of up to 36 months was used on credit card balances.

The approach reflects the Group 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

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 multiple economic scenarios (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. 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:

- 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 multiple economic scenarios. In the simulation the Group 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.

  The Downside 2 scenario reflects a significant economic downturn as reflected in the macro variables in the following table:

	Base case economic parameters					Downside 2 economic parameters				
	2019 Q4	2020 Q4	2021 Q4	2022 Q4	2023 Q4	2019 Q4	2020 Q4	2021 Q4	2022 Q4	2023 Q4
UK	%	%	%	%	%	%	%	%	%	%
GDP (year-on-year)	1.7	1.5	1.9	1.8	1.8	(1.2)	1.2	2.7	2.0	2.1
Bank of England rate	1.0	1.0	1.3	1.3	1.3	-	-	-	-	-
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
Unemployment rate	4.8	5.0	5.1	5.1	5.1	6.7	7.4	7.3	6.9	6.4
World GDP (year-on-year)	2.7	2.4	2.9	2.7	2.5	(0.8)	3.1	4.4	3.2	2.8

14. Risk management - Credit risk continued

Measurement uncertainty and ECL sensitivity analysis continued

This scenario has been applied to all modelled portfolios in the analysis below. 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, probability of default (PD), simulating a relative 25% upward shift in PDs.

We complemented these common scenarios 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 remain 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 the Group 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.

The Group'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.

	Stage 1 and 2 Exposures			Common scenarios - ECL uplift						Specific scenarios		
				Downside 2			25% PD increase			HPI fall / TTC PD		
	Exposure	of which In Stage 2	ECL provision	potential ECL Uplift		Exposure In Stage 2	potential ECL Uplift		Exposure In Stage 2	potential ECL Uplift		of which In Stage 2
	£bn	%	£m	£m	%	%	£m	%	%	£m	%	%
Personal	2.4	15.70%	24	6	24.23%	19.73%	7	30.11%	18.09%			
of which: mortgages	1.9	14.50%	14							1	7.63%	14.51%
Wholesale	2	4.10%	4	1	25.39%	6.87%	1	22.42%	6.13%	1	41.77%	9.03%

Credit risk- banking activities

Introduction

This section covers the credit risk profile of the Ulster Bank Limited's banking activities. As these activities are mainly within the scope of IFRS 9's expected credit loss (ECL) framework where appropriate comparatives are presented for 1 January 2018 –the effective date of implementation of IFRS 9.

The exception to this is the Personal portfolio for which 31 December 2017 comparatives are presented.

Refer to Note 9 to the accounts for revisions to policies and critical judgements relating to impairment loss determination.

Financial instruments within the scope of the IFRS 9 ECL framework

Refer to Note 8 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.

14. Risk management – Credit risk continued

Portfolio summary - sector analysis

The table below summarises financial assets and off-balance sheet exposures gross of ECL, related ECL provisions, impairment and past due by sector and asset quality.

31 December 2018	Personal £m	Wholesale £m	Total £m
Loans by geography	2,308	1,495	3,803
- UK	2,308	1,443	3,751
- RoI	-	18	18
- Other Europe	-	10	10
- RoW	-	24	24
Loans by asset quality			
- AQ 1 - 4	1,326	344	1,670
- AQ 5 - 8	883	1,043	1,926
- AQ 9	20	9	29
- AQ 10	79	99	178
Loans by stage			
- Stage 1	1,787	1,266	3,053
- Stage 2	442	130	572
- Stage 3	79	99	178
Loans - past due analysis			
Total	2,308	1,495	3,803
- Not past due	2,073	1,379	3,452
- Past due 1-29 days	33	43	76
- Past due 30-89 days	128	31	159
- Past due 90-180 days	9	1	10
- Past due > 180 days	65	41	106
Stage 2	442	130	572
- Not past due	288	110	398
- Past due 1-29 days	28	2	30
- Past due 30 - 89 days	126	18	144
- Past due 90 - 180 days	-	-	-
- Past due > 180 days	-	-	-
Weighted average 12 month PDs			
IFRS 9 (%)	0.88	1.11	0.96
Basel (%)	1.01	1.70	1.28
ECL provision by geography (total)	43	41	84
- UK	43	38	81
- RoI	-	1	1
- Other Europe	-	-	-
- RoW	-	2	2
ECL provision by stage (total)	43	41	84
- Stage 1	2	3	5
- Stage 2	20	4	24
- Stage 3	21	34	55
ECL Provision coverage (%)			
- Stage 1 (%)	0.11	0.24	0.17
- Stage 2 (%)	4.53	2.64	4.10
- Stage 3 (%)	26.43	34.49	30.91
ECL charge (total)	(7)	1	(6)
ECL loss rate (%)	(0.31)	0.06	0.15
Amounts written off (total)	23	16	39
Other financial assets by asset quality			
- AQ 1-4	-	974	974
- AQ 5-8	-	-	-
- AQ 9	-	-	-
- AQ10	-	-	-
Off balance sheet			
Loan commitments	370	433	803
Financial guarantees	-	67	67
Off balance sheet by asset quality			
- AQ 1 - 4	185	217	402
- AQ 5 - 8	181	273	454
- AQ 9	-	3	3
- AQ 10	4	7	11

14. Risk management continued

Collateral and credit enhancement - Total

The table below summarises financial assets of modelled portfolios within the scope of the ECL framework as well as credit mitigation and credit enhancements. Refer to the Policy elections and simplifications relating to IFRS 9 section for details on non-modelled portfolios.

31 December 2018	Gross exposure	ECL	Maximum exposure to credit risk	Maximum exposure to credit risk: of which stage 3	Credit Enhancements			Total credit enhancements	Total credit enhancements: of which stage 3	Exposure post credit mitigation & enhancement	Exposure post credit mitigation & enhancement: of which stage 3
					Financial	Property	Other				
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Financial assets											
Cash and balances at central banks	974	-	974	-	-	-	-	-	-	974	-
Loans - amortised cost											
Personal	2,193	39	2,154	55	-	1,961	-	1,961	14	193	41
Wholesale	1,495	41	1,454	65	8	563	180	751	59	703	6
Other financial assets	-	-	-	-	-	-	-	-	-	-	-
Total	4,662	80	4,582	120	8	2,524	180	2,712	73	1,870	47
Contingent liabilities and commitments											
Personal	370	-	370	4	-	-	-	-	-	370	4
Wholesale	500	1	499	7	9	67	32	108	1	391	6
Total	870	1	869	11	9	67	32	108	1	761	10
Total Exposure	5,532	81	5,451	131	17	2,591	212	2,820	74	2,631	57

The Group holds collateral in respect of individual loans. This collateral includes mortgages over property (both personal and commercial). Property valuations are capped at the loan value.

14. Risk management – Credit risk continued

Personal portfolio

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. Weighted average LTVs are separated into owner-occupied and buy-to-let categories.

Personal lending	2018 £m	2017 £m
Mortgages	2,055	2,220
Owner occupied	1,894	2,049
Buy-to-let	161	171
Interest only - variable	303	334
Interest only - fixed	33	30
Mixed (1)	55	61
ECL provisions (2)	26	40
Other lending (3)	234	211
ECL provisions (2)	15	16
Total personal lending	2,289	2,431
Mortgage LTV ratios (3)		
- Total portfolio	65%	68%
- Stage 1/performing	63%	67%
- Stage 2/performing	86%	67%
- Stage 3/non-performing	87%	90%
- Buy-to-let	75%	78%
- Stage 1	74%	80%
- Stage 2	88%	80%
- Stage 3	77%	86%
Gross new mortgage lending	137	229
Owner occupied exposure	134	222
Weighted average LTV (4)	67%	69%
Buy-to-let	3	7
Weighted average LTV (4)	64%	63%
Interest only variable rate	-	1
Interest only fixed rate	-	-
Mixed (1)	-	-
Mortgage forbearance (audited)		
Forbearance flow	3	4
Forbearance stock	27	41
Current	8	15
1-3 months in arrears	2	5
>3 months in arrears	17	21

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.
(3) Excludes loans that are commercial in nature, for example loans guaranteed by a company and commercial real estate lending to personal customers.
(4) Weighted by current exposure gross of provisions.

14. Risk management – Credit risk continued

Personal portfolios

Mortgage LTV distribution by stage

The table below summarises gross mortgage lending and related ECL by LTV band.

	31 December 2018														31 December 2017			
	Drawn exposure - Total book					Of which:	ECL provisions				ECL provisions coverage [1]				Drawn exposure - Total book			Of which:
	Stage 1 £m	Stage 2 £m	Stage 3 £m	Not within IFRS 9 ECL scope £m	Total £m	Gross new lending £m	Stage 1 £m	Stage 2 £m	Stage 3 £m	Total £m	Stage 1 %	Stage 2 %	Stage 3 %	Total %	Performing £m	Non-performing £m	Total £m	Gross new lending £m
≤50%	509	38	11	75	633	32	1	1	2	4	0.0%	2.7%	22.3%	0.6%	602	13	615	50
>50% and ≤70%	482	51	10	26	569	27	-	2	1	3	0.0%	4.6%	21.9%	0.8%	559	11	570	46
>70% and ≤80%	294	42	4	7	347	19	-	2	1	3	0.1%	4.3%	15.2%	0.8%	347	5	352	33
>80% and ≤90%	179	35	5	5	224	48	-	2	1	3	0.1%	4.3%	18.0%	1.1%	304	5	309	90
>90% and ≤100%	47	24	5	4	80	7	-	1	1	2	0.1%	7.6%	15.1%	3.2%	80	5	85	8
>100% and ≤110%	32	17	3	1	53	-	-	1	-	1	0.1%	5.5%	15.1%	2.8%	60	4	64	-
>110% and ≤130%	41	30	6	2	79	-	-	2	1	3	0.1%	6.0%	13.0%	3.3%	84	7	91	-
>130% and ≤150%	16	22	5	-	43	-	-	1	1	2	0.1%	6.4%	13.8%	5.0%	46	5	51	-
>150%	3	10	3	-	16	-	-	1	1	2	0.1%	6.2%	17.3%	7.2%	25	8	33	-
Total with LTVs	1,603	269	52	120	2,044	133	1	13	9	23	0.0%	4.9%	17.9%	1.1%	2,107	63	2,170	227
Other	3	3	3	2	11	4	-	1	2	3	0.3%	15.9%	64.2%	21.4%	43	7	50	2
Total	1,606	272	55	122	2,055	137	1	14	11	26	0.0%	5.0%	20.3%	1.2%	2,150	70	2,220	229

Note:

(1) ECL provisions coverage is ECL provisions divided by drawn exposure.

14. Risk management – Credit risk continued

Flow statements

The ECL flow statement analyses the key elements that drive the movement of ECL and the related income statement impact over the reporting period including the following key elements:

- Stage transfers (e.g. exposures moving from Stage 1 to Stage 2) – these 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 – this 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.
- Amounts written-off – these represent the gross asset written-down against accounts with ECL, including the net asset write-down for debt sale activity.
- Other (P&L only items) – these include any subsequent changes in the value of written-down assets (e.g. 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.
- The related financial asset movements that support these ECL flow statements are also analysed.
- The impact of model changes during 2018 were not material at total level or on portfolios disclosed below.

	Stage 1		Stage 2		Stage 3		Total	
	Financial assets £m	ECL £m	Financial assets £m	ECL £m	Financial assets £m	ECL £m	Financial assets £m	ECL £m
At 1 January 2018	3,954	5	644	18	140	94	4,738	117
Currency translation and other adjustments	-	1	-	-	-	(2)	-	(1)
Transfers from Stage 1 to Stage 2	(287)	(1)	287	1	-	-	-	-
Transfers from Stage 2 to Stage 1	225	4	(225)	(4)	-	-	-	-
Transfers to Stage 3	(6)	-	(74)	(2)	80	2	-	-
Transfers from Stage 3	2	-	14	4	(16)	(4)	-	-
Net re-measurement of ECL on stage transfer	-	(4)	-	6	-	4	-	6
Changes in risk parameters (model inputs)	-	1	-	2	-	10	-	13
Other changes in net exposure	82	-	(69)	-	(9)	(9)	4	(9)
Other (P&L only items)	-	1	-	-	-	(4)	-	(3)
Income statement (releases)/charges	-	(2)	-	8	-	1	-	7
Amounts written-off	-	-	(1)	(1)	(38)	(38)	(39)	(39)
Unwinding of discount	-	-	-	-	-	(2)	-	(2)
At 31 December 2018	3,970	6	576	24	157	55	4,703	85
Net carrying amount	3,964		552		102		4,618	

Asset quality (unaudited)

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 the Group 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.

The mapping to the S&P ratings is used by the Group 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.

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

14. Risk management – Credit risk continued

Sector and geographical concentration

Industry analysis plays an important part in assessing the potential for concentration risk in the loan portfolio. Particular attention is given to industry sectors where the Bank believes there is a high degree of risk or potential for volatility in the future. The tables below analyse credit risk assets by industry sector. All balances were transacted from a UK office.

2018	Gross loans to banks and customers £m	Derivatives £m	Total £m	Netting and offset(1) £m
Central and local government	20	-	20	20
Manufacturing	303	-	303	21
Construction	54	-	54	16
Finance	83	5	88	1
Service industries and business activities	472	-	472	56
Agriculture, forestry and fishing	246	-	246	1
Property	372	-	372	1
Individuals				
Home mortgages	2,055	-	2,055	-
Other	229	-	229	-
Interest accruals	6	-	6	-
	3,840	5	3,845	116

2017	Gross loans to banks and customers £m	Derivatives £m	Total £m	Netting and offset(1) £m
Central and local government	15	-	15	15
Manufacturing	274	-	274	22
Construction	52	-	52	11
Finance	80	8	88	1
Service industries and business activities	488	1	489	68
Agriculture, forestry and fishing	233	-	233	1
Property	340	-	340	-
Individuals				
Home mortgages	2,222	-	2,222	-
Other	204	-	204	-
Interest accruals	5	-	5	-
	3,913	9	3,922	118

Note:

(1) This column shows the amount by which the Bank's credit risk exposures is reduced through arrangements, such as master netting agreements, which give the Bank a right to set-off the financial asset against a financial liability due to the same counterparty.

14. Risk management - Credit risk continued

Key IFRS 9 terms and differences to previous accounting and current regulatory framework

Attribute	IFRS 9	IAS 39	Regulatory (CRR)
Default / credit impairment	To determine the risk of a default occurring, management applies a default definition that is consistent with the Basel/regulatory definition of default. Assets that are defaulted are shown as credit impaired. RBS Group uses 90 days past due as a consistent measure for default across all product classes. The population of credit impaired assets is broadly consistent with IAS 39, though measurement differs because of the application of MES. Assets that were categorised as potential problems with no impairment provision are now categorised as Stage 3.	Default aligned to loss events, all financial assets where an impairment event has taken place - 100% probability of default and an internal asset quality grade of AQ10 - are classed as non-performing. Impaired financial assets are those for which there is objective evidence that the amount or timing of future cash flows have been adversely impacted since initial recognition.	A default shall be considered to have occurred with regard to a particular financial asset when either or both of the following have taken place: - RBS Group considers that the customer is unlikely to pay its credit obligations without recourse by the institution to 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)	PD is the likelihood of default assessed on the prevailing economic conditions at the reporting date (point in time), adjusted to take into account estimates of future economic conditions that are likely to impact the risk of default; it will not equate to a long run average.	Regulatory PDs adjusted to point in time metrics are 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 current risk management framework has been established. Credit deterioration will be a management decision, subject to approval by governing bodies such as the Group Provisions Committee. 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.	Not applicable.	Not applicable.

14. Risk management - Credit risk continued

Key IFRS 9 terms and differences to previous accounting and current regulatory framework continued

Attribute	IFRS 9	IAS 39	Regulatory
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. 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.	Financial asset carrying values based upon the expectation of future cash flows.	Not applicable.
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 are often used for calculating collective and latent provisions; bespoke LGDs are 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.	Based on the current drawn 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.
Modification	A modification occurs when the contractual cash 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 income statement of any impact on the carrying value and effective interest rate (EIR) or examples of modification events include forbearance and distressed restructuring. The financial impact is recognised in the income statement as an impairment release/(loss).	Modification is not separately defined but accounting impact arises as an EIR adjustment on changes that are not derecognition or impairment events.	Not applicable.

14. Risk management continued

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.

Sources of risk (unaudited)
The principal source of Non-traded market risk in the Bank is interest rate 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.

Risk governance (unaudited)
Responsibility for identifying, measuring, monitoring and controlling market risk arising from non-trading activities lies with the relevant business. Oversight is provided by the Treasury Risk function, which reports into the Director of Financial Risk & Analytics.

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 and accounting volatility risks and quarterly in the case of equity risks).

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

Risk appetite (unaudited)
The RBS Group's qualitative appetite is set out in the non-traded market risk appetite statement.

Its quantitative appetite is expressed in terms of exposure limits. These limits comprise both board risk measures (which are approved by the Board on the recommendation of the Board Risk Committee) and key risk measures (which are approved by the Asset & Liability Management Committee).

The Group's limit framework comprises value-at-risk (VaR), stressed value-at-risk (SVaR), sensitivities and earnings-at-risk limits.

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 the Group remains within its risk appetite, triggers have been set such that if exposures exceed a specified level, action plans are developed and implemented.

Risk monitoring and mitigation (unaudited)

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 the Group or its customer can alter the level and timing of their cash flows. Option risk can be further categorised into automatic option risk and behavioural option risk, such as pipeline risk (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).

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

Risk measurement
The market risk exposures that arise as a result of the Bank's retail and commercial banking activities are measured using a combination of value-based metrics (VaR and sensitivities) and earnings-based metrics.

Structural hedging
The Group has the benefit of a significant pool of stable, non and low interest bearing liabilities, principally comprising equity and money transmission accounts. The RBS Group has a policy of hedging these balances, either by investing directly in longer-term fixed-rate assets (primarily fixed-rate mortgages) or by using interest rate swaps, in order to provide a consistent and predictable revenue stream from these balances.

Prior to 2018, the Group had exposure to longer-term fixed-rate assets (primarily fixed-rate mortgages), but it had not fully implemented the Group policy. The RBS Group's structural hedge was managed at RBS Group level.

14. Risk management continued

Structural hedging continued

During 2018, the ring fence subgroup, comprising NatWest Holdings and its subsidiaries, including the Bank, implemented a structural hedging programme. Interest rate swaps to support the Bank's structural hedging requirements were novated from NatWest Markets to NatWest Bank.

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.

The Group 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. The following table presents one-day internal banking book VaR at a 99% confidence level.

	2018				2017
	Average £m	Maximum £m	Minimum £m	Period-end £m	Period-end £m
Interest rate	0.3	0.4	0.2	0.2	0.4

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. The Bank'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 the Bank's retail and commercial banking activities are included in the banking book VaR table above. 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.

Pension risk (unaudited)

Definition

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

Sources of pension risk

The Bank has exposure to pension risk through its defined benefit scheme, the UBPS.

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. The Bank is exposed to the risk that the scheme's assets, together with future returns and additional future contributions, are insufficient to meet liabilities as they fall due. In such circumstances, the Bank could be obliged (or might choose) to make additional contributions to the scheme, or be required to hold additional capital to mitigate this risk.

Risk governance

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

Risk appetite

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

14. Risk management continued

Pension risk (unaudited) continued

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 Group 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 Forum and the Group Board Risk Committee four times a year in the Risk Management Quarterly Report.

The Group also undertakes stress tests and scenario analysis 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 the Group's balance sheet, income statement and capital position are incorporated into the overall RBS Group stress test results.

Compliance and conduct risk (unaudited)

Definition

Compliance risk is the risk that the behaviour of the Group 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 the Group 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 the Group'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 15 to the accounts, the RBS Group and certain members of staff are party to legal proceedings and are subject to investigation and other regulatory action.

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 the RBS Group.
- Enhanced product monitoring and reporting was introduced.
- Controls, systems and processes were revised to ensure compliance with ring-fencing rules.
- PPI remediation continued in advance of the FCA's August 2019 deadline for claims.
- Work to address legacy GRG complaints continued. The process closed to new complaints on 22 October 2018.
- Product and pricing continued to be simplified for new and existing customers.

Risk governance

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

Risk appetite

Risk appetite for compliance and conduct risks is set at RBS Group Board level. 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

The RBS Group 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 the RBS Group's senior risk committees and at RBS Group 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 the RBS Group's strategic planning cycle.

Risk mitigation

Activity to mitigate the most-material compliance and conduct risks is carried out across the RBS Group 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 the RBS Group. Independent assessments of compliance with applicable regulations are also carried out at a legal entity level.

14. Risk management – Compliance and conduct risk (unaudited) continued

Risk controls
The Compliance & Conduct function operates a framework of controls that ensure business is conducted in accordance with legal and regulatory requirements, as well as delivering good customer outcomes. The function is responsible for compliance and conduct risk-related policies. These include the Complaints Management Policy, the Client Assets & Money Policy, and the Product Lifecycle Policy as well as policies relating to customers in vulnerable situations, cross-border activities, market abuse and the Ring-Fencing Policy. Continuous monitoring and, where appropriate, assurance is used to ensure the controls are adequate and effective.

Risk monitoring and measurement
Compliance and conduct risks are measured and reported through continuous risk assessments and regular monthly reporting to the Group's senior Risk Committees and the Board.

The function monitors a blend of quantitative (board risk and key risk measures) and qualitative data sources in order to assess the Group's compliance and conduct risk profile.

Reliance is placed on effective risk identification, reporting and monitoring by the first line of defence, with continuous oversight, challenge and review by the function. Compliance and conduct risk management is also integrated into the Group's strategic planning cycle.

Risk mitigation
The Compliance & Conduct function is responsible for the development of an Annual Compliance & Conduct Plan. This provides a Group-wide view of the activity proposed to mitigate the most material compliance and conduct risks. It is underpinned by detailed franchise, legal entity or function plans outlining the activity required to manage compliance and conduct within pre-defined risk appetite levels.

Financial crime risk (unaudited)

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

Key developments in 2018
Various enhancements were made across the Financial Crime framework during 2018. These included strengthening the financial crime governance framework, 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.

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 RBS Group Executive Risk Committee and the Group Board Risk Committee.

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

Risk mitigation
Through the financial crime framework, the Group 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. The Group 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.

Risk controls
The Group operates a framework of preventative and detective controls designed to ensure the Group 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 Group'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.

14. Risk management continued

Operational risk (unaudited)

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.

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.
- The Group 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.
- The Group has established an Innovation Risk Oversight team to provide Group-wide oversight of its innovation portfolio to help deliver safely and at pace.
- The Group 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 the Group and its customers. The Group uses proactive threat management and intelligence processes to identify, manage and mitigate credible threats.
- The Group continued to reduce and simplify its internet presence in order 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 the Group experiences continues to fall year-on-year. This is as a result of significant investment in the resilience of IT systems and business processes.
- Internal training programmes ensure all employees are aware of the threats facing the Group and remain vigilant to unauthorised attempts to access systems and data.

Risk governance
A strong operational risk management function is vital to support the Group's ambition 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 the Group.

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 the Group is willing to accept in order to achieve its strategic objectives and business plans.

Appetite exposures for all material risks are regularly reported to business risk committees, OREC, Executive Risk Committee (ERC) and Board Risk Committee (BRC).

The Group-wide operational risk appetite statement encompasses the full range of operational risks faced by its legal entities, franchises and functions, supported by board risk measures which, should the limit be breached, would impact on our ability to achieve business plans and threaten stakeholder confidence. Strategic measures and Group-wide material risks are reviewed at least annually and approved at Group Board.

Risk controls
The Control Environment Certification (CEC) process is a half yearly self-assessment by the CEOs of RBS Group'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.

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 (GAC) and BRC. They are also shared with external auditors.

14. Risk management - Operational risk (unaudited) continued

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 the Group'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.

The Group 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 the Bank's Pillar 2A capital requirement.

Scenario analysis is used to assess how extreme but plausible operational risks will affect the Bank. 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 the Group captures and records operational risk loss 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'.

All losses and recoveries associated with an operational risk event are reported against their financial accounting date. 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. The Group purchases insurance against specific losses and to comply with statutory or contractual requirements.

Operational resilience

The Group 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, the Group 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 (unaudited)

Definition

Business risk is the risk that the Group 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 our chosen strategy as communicated to the market, regulators and other key stakeholders. The risk is that the Group does not deliver its expected business performance which could give rise to deterioration in stakeholder trust and confidence and/or a breach of regulatory thresholds. The Group may not be able to execute its chosen strategy if there are material changes to its internal or external operating environment.

Sources of risk

Business risk arises as a result of the Group'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 the Group's ability to execute its chosen strategic business plan as intended and thus contribute to business risk.

Governance

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

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

14. Risk management – Business risk (unaudited) continued

Governance continued

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

The Group 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 the Group is willing to accept.

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

The Group 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 (unaudited)

Definition

Reputational risk is the risk to the Group's public image from a failure to meet stakeholders' expectations in relation to performance, conduct or business profile. Stakeholders include customers, shareholders, 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 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 sectors identified as presenting heightened reputational risk continued to be reviewed and strengthened.

Other commitments - these include documentary credits, which are commercial letters of credit providing for payment by the Bank 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.

Risk governance

A reputational risk policy supports reputational risk management across the Group. Reputational risk committees review relevant issues at an individual franchise or entity level, while the RBS 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 RBS 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

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

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 the Group's reputation continued to originate from historic and more recent conduct issues. As a result, the Group 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 in Note 15.

15. 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 the Bank is exposed to credit risk in the event of non-performance of the obligations undertaken by customers, the amounts shown do not, and are not intended to, provide any indication of the Bank's expectation of future losses.

	2018 £m	2017 £m
Contingent liabilities:		
Guarantees and assets pledged as collateral security	22	22
Other contingent liabilities	41	48
	63	70
Commitments:		
Documentary credits and other short-term trade related transactions	2	2
Commitments to lend	900	883
Other commitments	7	8
	909	893

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. The Bank's maximum exposure to credit loss, in the event of non-performance by the other party and where all counterclaims, collateral or security proves valueless, is represented by the contractual nominal amount of these instruments included in the table. These commitments and contingent obligations are subject to the Bank's normal credit approval processes.

Contingent liabilities

Guarantees - the Bank gives guarantees on behalf of customers. A financial guarantee represents an irrevocable undertaking that the Bank will meet a customer's obligations to third parties if the customer fails to do so. The maximum amount that the Bank could be required to pay under a guarantee is its principal amount as disclosed in the table above. The Bank expects most guarantees it provides 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.

Commitments

Commitments to lend - under a loan commitment the Bank 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 the Bank 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.

Capital Support Deed

The Bank, together with certain other subsidiaries of NatWest Holdings Limited, is party to a capital support deed ("CSD"). Under the terms of the CSD, the Bank may be required, if compatible with its legal obligations, to make distributions on, or repurchase or redeem, its ordinary shares. The amount of this obligation is limited to the Bank's capital resources in excess of the capital and financial resources needed to meet its regulatory requirements. The CSD also provides that, in certain circumstances, funding received by the Bank from other parties to the CSD becomes immediately repayable, such repayment being limited to the Bank's available resources.

Notes to the accounts

15. **Memorandum items** continued

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:

	Premises	
	2018	2017
Year in which payment will occur:	£m	£m
Minimum rentals payable under non-cancellable leases		
Within 1 year	2	2
After 1 year but within 5 years	5	5
After 5 years	92	95
Total	99	102

	2018	2017
	£m	£m
Property, plant and equipment		
Contracts to purchase goods or services	2	3

	2018	2017
	£m	£m
Amounts recognised in income statement		
Operating lease expense – minimum rentals payable	3	3

Litigation, investigations and reviews

The Bank is involved in litigation arising in the ordinary course of business. No material adverse effect on the net assets of the Bank is expected to arise from the ultimate resolution of these claims. Material investigations and reviews involving the Bank are described below.

FCA review of RBS Group's treatment of SMEs

In 2014, the FCA appointed an independent Skilled Person under section 166 of the Financial Services and Markets Act to review RBS Group's treatment of SME customers whose relationship was managed by RBS Group'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 Group 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.

The Bank has made provisions totalling £9m in respect of the above redress steps of which £4m had been utilised by 31 December 2018.

The FCA published a summary of the Skilled Person's report in November 2017. The 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.

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 PRA. 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 FSCS 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 months LIBOR plus 111 basis points or the relevant gilt rate for the equivalent cost of borrowing from HMT.

The Bank has accrued £55k for its share of estimated FSCS levies.

16. Analysis of changes in financing during the year

	Share capital, share premium and paid-in equity		Subordinated liabilities[1]	
	2018	2017	2018	2017
	£m	£m	£m	£m
At 1 January	314	912	107	939
Repayment of subordinated loans	-	-	-	(857)
Issue of Additional Tier 1 loan	-	60	-	-
Net cashflows from financing	314	972	107	82
Currency translation and other adjustments	-	-	-	25
Conversion of preference share capital to retained earnings	-	(658)	-	-
At 31 December	314	314	107	107

Notes:
(1) Included in Amounts due to holding companies and fellow subsidiaries (Note 8).This denotes €120 million undated loan notes held by NatWest Holdings (3months EURIBOR plus 0.80%); repayable at the option of the Bank, only with prior consent of the Prudential Regularity Authority (PRA). Claims in respect of the Bank's loan capital are subordinate to the claims of other creditors. None of the loan capital is secured.

17. Analysis of cash and cash equivalents

	2018	2017
	£m	£m
At 1 January		
Cash	1,032	1,027
Cash equivalents	4,988	3,384
	6,020	4,411
Net cash (outflow)/inflow	(550)	1,603
Effect of exchange rate changes on cash and cash equivalents	1	6
At 31 December	5,471	6,020
Comprising:		
Cash and balances at central banks	1,063	1,032
Loans to banks [1]	4,408	4,988
Cash and cash equivalents	5,471	6,020

Notes:

(1) Included in Amounts due from holding companies and fellow subsidiaries (Note 8).

18. Directors' and key management remuneration

Up to 30 April 2018 the directors of the Bank were aligned to the directors of the ultimate holding company RBSG. From 30 April 2018 the executive and non executive directors of the Bank were aligned to the immediate holding company NatWest Holdings. In both periods the directors were remunerated for their services to the RBS Group as a whole and the Bank did not remunerate them nor could their remuneration be apportioned in respect of their services to the Bank.

The directors' emoluments in the table below represents the NatWest Holdings Group emoluments of the directors from April 2018 and the remuneration they received from the RBS Group prior to that. The remuneration of the RBSG directors is disclosed in the 2018 Annual Report and Accounts of the RBS Group. Where directors of the Bank are also directors of RBSG, details of their share interests can be found in the 2018 Annual Report and Accounts of the RBS Group, in line with regulations applying to RBSG as a premium listed company.

	2018	2017
Directors' remuneration	£'000	£'000
Non-executive directors emoluments	2,209	1,747
Chairman and executive directors emoluments	4,802	5,299
	7,011	7,046
Amounts receivable under long-term incentive plans and share options plans	-	1,225
	7,011	8,271

18. Directors' and key management remuneration continued

The total emoluments and amounts receivable under long-term incentive plans and share option plans of the highest paid director were £2,467k (2017 - £3,688k).

During the financial year there were no emoluments in respect of compensation payments for loss of office (2017 - nil).

No directors accrued benefits under defined benefit schemes or money purchase schemes during 2018 and 2017. The executive directors may participate in RBS Group's long-term incentive plans, executive share option and sharesave schemes.

Compensation of key management

The aggregate remuneration of directors and other members of key management during the year was as follows:

	2018 £'000	2017 £'000
Short term benefits	17,461	19,019
Post employment benefits	60	434
Share-based benefits	-	3,558
	17,521	23,011

Key management comprises members of the Bank Executive Committee.

19. Transactions with directors and key management

(a) 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 £705,832 in respect of loans to six persons who were directors of the Bank at any time during the financial period.

(b) For the purposes of IAS 24 'Related Party Disclosures', key management comprise directors of the Bank and members of the Bank Executive Committee. Applying the captions in the Bank's primary financial statements the following amounts(1) attributable, in aggregate, to key management:

	2018 £'000	2017 £'000
Loans to customers	1,530	18
Customer deposits	28,728	655

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.

Key management had no reportable transactions or balances with the ultimate holding company.

Note:

(1) Amounts are attributed to each person at their highest level of RBS Group key management.

20. 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. During 2015, all of the B shares held by the UK Government were converted into ordinary shares of £1 each.

The Bank 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 6) and value added tax; national insurance contributions; local authority rates; and regulatory fees and levies; together with banking transactions such as loans and deposits undertaken in the normal course of banker-customer relationships.

20. Related parties continued

Bank of England facilities

The Bank may participate in a number of schemes operated by the Bank of England in the normal course of business.

As a UK authorised institution the Bank is required to maintain a non-interest bearing (cash ratio) deposit with the Bank of England amounting to 0.296% of average eligible liabilities in excess of £600 million. The Bank also has access to Bank of England reserve accounts. These are sterling current accounts that earn interest at the Bank of England Rate.

Other related parties

In its role as a provider of finance, the Bank provides 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. 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.

Related undertakings

The following are the active related undertakings incorporated in the United Kingdom which are 100% owned by the Bank and fully consolidated into NatWest Bank for accounting purposes.

Entity name	Activity [1]
Ulster Bank Pension Trustees Limited	TR
Ulster Bank Commercial Services (NI) Limited (in liquidation)	BF
West Register (Northern Ireland) Property Limited (in liquidation)	INV
WR (NI) Property Investments Limited (in liquidation)	INV
WR (NI) Property Realisations Limited (in liquidation)	INV

Notes:

(1) Activity - Banking and Financial institution (BF), Investment (shares or property) holding company (INV), Trustee (TR).

The registered office for all of the above undertakings is 11-16 Donegall Square East, Belfast, BT1 5UB, except for Ulster Bank Commercial Services (NI) Limited (in liquidation) whose registered office is 2 Donegall Square West, Belfast, BT2 7GP.

At the balance sheet date the carrying value of the Bank's shares in subsidiary undertakings was £400,113 (2017: £400,113).

The table below discloses items included in income and operating expenses on transactions between the Bank and fellow subsidiaries of the RBS Group.

	2018 £m	2017 £m
Income		
Interest receivable	64	44
Interest payable	(22)	(18)
Fees and commissions receivable	3	1
Other operating income	44	50
Other administrative expenses	(49)	(38)
	40	39

21. Adoption of IFRS 9

The Bank's accounting policies have significantly changed on the adoption of IFRS 9 'Financial Instruments' with effect from 1 January 2018. Prior year is re-presented but there has been no restatement of prior years. Differences arising from the adoption of IFRS 9 have been recognised directly in retained earnings as of 1 January 2018.

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 are 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.

The impact on the Bank's balance sheet at 1 January 2018 and the key movements in relation to the impact on classification and measurement are as follows:

21. Adoption of IFRS 9 continued

	31 December 2017 (IAS 39)	New presentation	31 December 2017 re-presented	Impact of IFRS 9			1 January 2018 (IFRS 9)	
				Classification & measurement	Expected credit losses	Tax		
	£m	£m	£m	£m	£m	£m	£m	
Assets								Assets
Cash and balances at central banks	1,032	-	1,032	-	-	-	1,032	Cash and balances at central banks
Derivatives	9	-	9	-	-	-	9	Derivatives
Loans and advances to banks	7,149	(7,091)	58	-	-	-	58	Loans to banks - amortised cost
Loans and advances to customers	3,736	-	3,736	(7)	4	-	3,733	Loans to customers - amortised cost
Amounts due from holding companies and fellow subsidiaries	-	7,091	7,091	-	-	-	7,091	Amounts due from holding companies and fellow subsidiaries
Other assets	61	-	61	-	-	1	62	Other assets
Total assets	11,987	-	11,987	(7)	4	1	11,985	
Liabilities								Liabilities
Deposits by banks	2,675	(2,654)	21	-	-	-	21	Bank deposits - amortised cost
Customer accounts	7,841	(55)	7,786	-	-	-	7,786	Customer deposits - amortised cost
Customer deposits - DFVPL	-	36	36	-	-	-	36	Customer deposits - DFVPL
Amounts due to holding companies and fellow subsidiaries	-	2,780	2,780	-	-	-	2,780	Amounts due to holding companies and fellow subsidiaries
Derivatives	18	-	18	-	-	-	18	Derivatives
Subordinated liabilities	107	(107)	-	-	-	-	-	
Other liabilities	860	-	860	-	2	-	862	Other liabilities
Total liabilities	11,501	-	11,501	-	2	-	11,503	Total liabilities
Owners' equity	486	-	486	(7)	2	1	482	Owners' equity
Total liabilities and equity	11,987	-	11,987	(7)	4	1	11,985	Total liabilities and equity

The table below reflects the impact of IFRS 9 on total equity

	£m
At 31 December 2017 - under IAS 39	486
Classification & measurement	(7)
Expected credit losses	
- Amortised cost assets	4
- Contingent liabilities and commitments	(2)
Tax	1
At 1 January 2018 - under IFRS on transition to IFRS 9	482

22. Ultimate holding company

The Bank's ultimate holding company is The Royal Bank of Scotland Group plc which is incorporated in Great Britain and registered in Scotland and its immediate holding company is National Westminster Bank Plc which is incorporated in Great Britain and registered in England.

As at 31 December 2018, The Royal Bank of Scotland Group plc heads the largest group in which the Bank is consolidated. Copies of the consolidated accounts may be obtained from The Secretary, The Royal Bank of Scotland Group plc, Gogarburn, PO Box 1000, Edinburgh, EH12 1HQ.

Following placing and open offers by The Royal Bank of Scotland Group plc in December 2008 and April 2009, the UK Government, through HM Treasury, currently holds 62.3% of the issued ordinary share capital of the holding company and is therefore the Bank's ultimate controlling party.

23. Post balance sheet events

There have been no significant events between the financial year end and the date of approval of the accounts which would require a change to or additional disclosure in the accounts.