Standard Chartered Bank
Reference Number ZC18
Directors’ Report and Financial Statements
31 December 2019

Incorporated in England with limited liability by Royal Charter 1853
Principal Office: 1 Basinghall Avenue, London, EC2V 5DD, England

Standard Chartered Bank
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Our business

Standard Chartered Bank is a leading international banking group.

Our heritage and values are expressed in our brand promise, Here for good. Our operations reflect our purpose, which is to drive commerce and prosperity through our unique diversity.

Our businesses serve four client segments in three regions, supported by nine global functions.

The following are company designations as described in the document:

Standard Chartered Bank Group (Group) – being Standard Chartered Bank and its subsidiaries

Standard Chartered Group (PLC Group) – being the ultimate parent and its subsidiaries

Standard Chartered Bank (Company) – being the standalone Bank legal entity

Standard Chartered PLC (PLC) – being the standalone legal entity of the ultimate parent

About this report

Sustainability reporting - We adopt an integrated approach to corporate reporting, embedding non-financial information throughout our Annual Report. More information is also available in our Sustainability Summary at sc.com/sustainabilitysummary

The Group uses a number of alternative performance measures in the discussion of its performance. These measures exclude certain items which management believe are not representative of the underlying performance of the business and which distort period-on-period comparison. They provide the reader with insight into how management measures the performance of the business.

For more information please visit sc.com

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Unless another currency is specified, the word 'dollar' or symbol '$' in this document means US dollar and the word 'cent' or symbol 'c' means one-hundredth of one US dollar. Those disclosures marked 'unaudited' are not within the scope of KPMG LLP's audit.

Unless the context requires, within this document, 'China' refers to the People's Republic of China and, for the purposes of this document only, excludes Hong Kong Special Administrative Region (Hong Kong), Macau Special Administrative Region (Macau) and Taiwan. 'Korea' or 'South Korea' refers to the Republic of Korea. Greater China & North Asia (GCNA) includes Mainland China, Hong Kong, Japan, Korea, Macau and Taiwan; ASEAN & South Asia (ASA) includes Australia, Bangladesh, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Singapore, Sri Lanka, Thailand and Vietnam; and Africa & Middle East (AME) includes Angola, Bahrain, Botswana, Cameroon, Cote d'Ivoire, Egypt, Gambia, Ghana, Iraq, Jordan, Kenya, Lebanon, Mauritius, Nigeria, Oman, Pakistan, Qatar, Saudi Arabia, Sierra Leone, South Africa, Tanzania, the United Arab Emirates (UAE), Uganda, Zambia and Zimbabwe.

Within the tables in this report, blank spaces indicate that the number is not disclosed, dashes indicate that the number is zero and nm stands for not meaningful.

Our business

OUR PURPOSE AND PROGRESS

Delivering our strategy

We have made good progress in the year and we are on track to deliver our objectives. We continue to integrate sustainability across our business by focusing on sustainable finance, being a responsible company and promoting inclusive communities. Our 11 Sustainability Aspirations, aligned to the UN Sustainable Development Goals, provide tangible targets to drive sustainable business outcomes. We gauge our annual progress against a set of Group key performance indicators (KPIs), a selection of which are shown below, as well as client segment KPIs, some of which are shown on pages 15 and 16.

The Group completed a subsidiary reorganisation during the year. The reorganisation has resulted in the transfers of the GCNA subsidiaries (Hong Kong, China, Korea and Taiwan) to PLC, the Group's ultimate parent. Following the reorganisation, PLC directly owns SCB Hong Kong which in turns owns the subsidiaries of China, Korea and Taiwan. These four entities make up the GCNA hub, within the PLC Group.

The KPIs below are on a continuing basis (i.e. exclude the GCNA hub).

FINANCIAL KPIs AND MEASURES

Underlying basis	Statutory basis
Return on tangible equity	**Return on tangible equity**
4.1%	2.2%
+280bps	+740bps
Read more on page 19	Read more on page 19
Operating Income	**Operating Income**
$9,434m	$9,378m
+4%	+5%
Read more on page 19	Read more on page 22
Profit before tax	**Profit before tax**
$2,106m	$1,719m
+24%	+231%
Read more on page 23	Read more on page 19

CAPITAL KPIs

Common Equity Tier 1 ratio

12.4%

24 bps - continuing operations
(262) bps - compared to 2018 as published

Read more on page 19

NON-FINANCIAL KPIs

Diversity and inclusion: Women in senior roles

26.1%

+0.7%

Our business

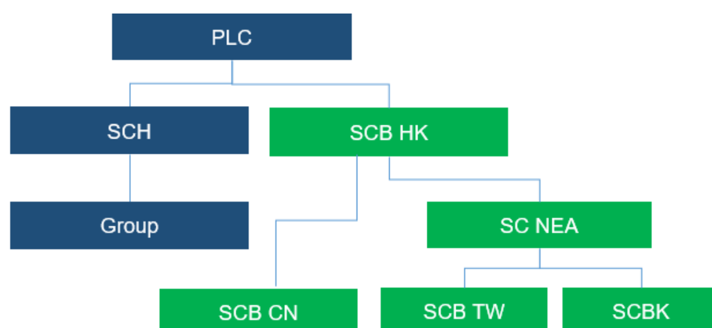
Group subsidiary reorganisation

During the year, the Group transferred its ordinary shares in Standard Chartered Bank (Hong Kong) Limited (SCB HK), Standard Chartered Bank (China) Limited (SCB China), Standard Chartered NEA Limited (SC NEA) (The holding company of Standard Chartered Bank (Korea) Limited) and Standard Chartered Bank (Taiwan) Limited (SCB TW) to other entities within the PLC Group as follows:

- On 4 March 2019, SCB HK was transferred via a dividend in specie to Standard Chartered Holdings ("SCH"), the Group's holding company, who in turn transferred these shares to SC PLC.
- On 1 June 2019, the Group transferred its shareholding in SCB China to SCB HK.
- On 1 October 2019, the Group transferred its shareholding in SC NEA to SCB HK and, on the same day, its shareholding in SCB TW to SC NEA.

The reorganisation has resulted in a discontinued operation loss for the Group of $4,573 million, including $595 million of profit from transferred entities until their transfer date, as well as losses on transfer of $5,168 million, including related goodwill, recycling of accumulated exchange differences on translation of foreign operations and related taxes. (Refer Financial review on page 19 and Note 40 – Discontinued operations).

Final structure



During the year, the majority of the financial assets and liabilities in the Company's Singapore Branch were transferred to Standard Chartered Bank (Singapore) Limited, a subsidiary of the Group. As at 31 December 2018, these assets and liabilities were classified as Held for sale.

The transfer has no impact on the financial position of the Group, however at the Company level the Held for sale assets and liabilities have decreased and intercompany receivables and payables have increased.

Further, a loss on transfer of goodwill was recorded in the Company to the value of $557 million, and a currency translation reserve of $55 million was recycled as a debit to the profit or loss.

On a forward-looking basis, it is anticipated that the Group will derive benefit from the creation of the GCNA hub within the PLC Group as the creation of a dual hub model comprising the Group and the GCNA hub is expected to facilitate a more efficient use of funding and capital for the Group (and the Standard Chartered Group).

The Group on a continuing basis

Standard Chartered Bank is authorised by the Prudential Regulation Authority (PRA) and regulated by the PRA and by the Financial Conduct Authority (FCA). The PRA is the consolidated supervisor in respect of the Group (of which PLC is the ultimate parent).

Standard Chartered Bank is a material subsidiary of the PLC Group for the purposes of the Bank of England led single point of entry preferred resolution strategy for the PLC Group. The Group is a core part of, and critical provider of essential services to the PLC Group and is fundamental to the delivery of the PLC Group's purpose, franchise and strategy.

Clients	- The Group remains the largest CIB origination hub supporting a significant part of CIB revenues and is key to the global network proposition - The Group is the relationship hub for the majority of priority CIB clients, particularly Organisation for Economic Co-operation and Development (OECD) clients - The Group holds the majority of the PLC Group's corporate and financial institutions deposits, a significant part of the PLC Group's USD funding base
Capabilities	- The Group holds key licenses and hosts infrastructure vital for the global franchise such as global USD & EUR clearing - The Group is the main Financial Markets (FM) booking centre supporting the majority of global FM revenues - The Group remains a main access point to high quality USD funding

Critical infrastructure	- The Group is the key liquidity management centre: holding the majority of the PLC Group's high-quality liquid assets for regulatory purposes - The Group provides functional support on a global basis - The Group operates global business services hubs for the benefit of the PLC Group including shared service centres and centres of excellence
Investors	- The Group's UK domicile underpins a unique investor proposition: emerging markets access from a UK regulated platform - A significant number of PLC Group's equity and debt investors are based in the Group's footprint
Recovery and resolution	- Standard Chartered Bank is the largest material subsidiary for the purposes of minimum requirement for own funds and eligible liabilities (MREL) and total loss-absorbing capital (TLAC) - The Group is critical to the delivery of capital and liquidity generating management actions in PLC Group's recovery planning - The Group houses various critical services and critical functions in resolution and resolution management

The Group's Credit Ratings

The subsidiary reorganisation was evaluated by the rating agencies, and the Group's senior unsecured and deposit ratings remained unchanged. The Group remains a highly rated institution (in both absolute and relative terms) with the following long and short-term issuer ratings all with a stable outlook:

	S&P	**Moody's**	**Fitch**
Long Term	A	A1	A+
Short Term	A-1	P-1	F1

Our business

Who we are and what we do

Here for good

At Standard Chartered our purpose is to drive commerce and prosperity through our unique diversity. We offer banking services that help people and companies to succeed, creating wealth and growth across our markets. Our heritage and values are expressed in our brand promise, Here for good.

How we are organised

Global

Corporate & Institutional Banking

Serving large corporations, governments, banks and investors.

Operating income

$4,995m Underlying basis

$4,995m Statutory basis

Private Banking

Helping clients grow and protect their wealth.

Operating income

$366m Underlying basis

$366m Statutory basis

Regional

Commercial Banking

Supporting local corporations and medium-sized enterprises across Asia, Africa and the Middle East.

Operating income

$899m Underlying basis

$900m Statutory basis

Retail Banking

Serving individuals and small businesses.

Operating income

$2,334m Underlying basis

$2,334m Statutory basis

Central & other items (segment)

Operating income

$840m Underlying basis

$783m Statutory basis

Total operating income

$9,434m Underlying basis

$9,378m Statutory basis

Read more about our client segments' performance on page 15 and 16

Our business

Where we do it

Our regions are:

ASEAN & South Asia

Our largest markets by income are Singapore and India. We are active in all 10 ASEAN countries

Operating income

$4,179m
Underlying basis

$4,177m
Statutory basis

Africa & Middle East

Present in 25 markets, of which the most sizeable by income are the UAE, Nigeria and Kenya.

Operating income

$2,551m
Underlying basis

$2,551m
Statutory basis

Europe and Americas

Centred in London and New York with a presence across both continents. A key income originator for the Group

Operating income

$1,829m
Underlying basis

$1,829m
Statutory basis

Central and other items[1]

Operating income

$875m
Underlying basis

$821m
Statutory basis

1 Includes residual GCNA business (primarily Japan)

Total operating income

Operating income

$9,434m
Underlying basis

$9,378m
Statutory basis

Our business

Global functions

Our client-facing businesses are supported by our global functions, which work together to ensure the Group's operations run smoothly and consistently with our legal and regulatory obligations, our purpose and our risk appetite.

Human Resources

Enables business performance through recruiting, developing and engaging colleagues.

Legal

Enables sustainable business and protects the Group from legal-related risk.

Technology & Innovation

Responsible for the Group's operations, systems development and technology infrastructure.

Risk

Responsible for the sustainability of our business through good management of risk across the Group and ensuring that business is conducted in line with regulatory expectations.

Operations

Responsible for all client operations, end-to-end, and ensures the needs of our clients are at the centre of our operational framework. The function's strategy is supported by consistent performance metrics, standards and practices that are aligned to client outcomes.

Group CFO

Comprises seven support functions: Finance, Treasury, Strategy, Investor Relations, Corporate Development, Supply Chain and Property.

Corporate Affairs & Brand and Marketing

Manages the Group's communications and engagement with stakeholders in order to protect and promote the Group's reputation, brand and services.

Group Internal Audit

An independent function whose primary role is to help the Court and Executive Management to protect the assets, reputation and sustainability of the Group.

Conduct, Financial Crime and Compliance

Enables sustainable business by delivering the right outcomes for our clients and our markets by driving the highest standards in conduct, fighting financial crime and compliance.

Valued behaviours

Our valued behaviours demand that we do things differently, in order for us to succeed. Only then will we realise our potential and truly be Here for good.

Never settle

Continuously improve and innovate

Simplify

Learn from your successes and failures

Better together

See more in others

"How can I help?"

Build for the long term

Do the right thing

Live with integrity

Think client

Be brave, be the change

Market environment

Macroeconomic factors affecting the global landscape

Trends in 2019

- Global growth slowed in 2019, likely growing at 3.0 per cent, weaker than the 3.8 per cent growth witnessed in 2018
- Asia continued to be the main driver of global growth though growth slowed here as well
- Amongst the majors, the US was an outperformer, supported by a strong labour market though growth slowed as the impact of earlier fiscal stimulus faded
- The euro-area economy growth likely eased to 1.1 per cent in 2019 from 1.9 per cent in 2018 on the back of global trade slowdown and Brexit uncertainty
- Major central banks eased policy to guard against rising recession risks

Outlook for 2020

- Global growth is expected to stabilise around 3 per cent in 2020, the slowest pace of growth since the 2008-09 global financial crisis (GFC) though well above growth seen in the GFC years
- Asia will remain the fastest growing region in the world and will continue to drive global growth, expanding by more than 5 per cent
- Our core scenario is that the novel coronavirus (Covid-19) outbreak will be contained by late March, paving the way for a Q2 recovery. However, the evolution of the coronavirus situation globally remains a key uncertainty
- Monetary and fiscal policy support will cushion the negative coronavirus impact but will not be able to fully compensate for the deadweight loss to growth that is likely in Q1
- There are several downside risks to this outlook including escalation of US-China trade tensions or a geopolitical event risk resulting in an oil price spike

Regional trends and outlooks

Actual and projected growth by country in 2019 and 2020

Region	Country	2020	2019
ASEAN & South Asia	**India**	**5.6%**	5.0%
	Indonesia	**5.0%**	5.0%
	Singapore	**0.8%**	0.7%
Africa & Middle East	**Nigeria**	**3.0%**	2.4%
	UAE	**2.1%**	1.7%
Europe & Americas	**UK**	**1.0%**	1.2%
	USA	**1.7%**	2.3%
Greater China & North Asia[1]	**China**	**5.5%**	6.1%
	Hong Kong	**(2.4%)**	(1.2%)
	Korea	**2.0%**	2.0%

1 Includes actual and projected growth for GCNA given potential macro/global impact of the region

Medium and long-term view

- Ongoing global growth recovery is cyclical in nature and therefore vulnerable; structural challenges remain. Productivity growth is weak, especially in developed countries
- Long-term growth in the developed world is constrained by high levels of indebtedness and ageing populations
- Relatively younger populations in many emerging markets as well as adoption of digital technology will allow emerging markets to become increasingly more important for the global growth story
- Rising nationalism, anti-globalisation and protectionism are a threat to long-term growth prospects for emerging markets
- Emerging countries will have to focus on education and upskilling to meet the threat of rising joblessness due to automation

Trends and outlook for our three regions

ASEAN & South Asia

- ASEAN growth will be hurt by the coronavirus outbreak but will still be one of the fastest growing regions in 2020
- We expect Singapore to grow by 0.8 per cent in 2020, unchanged compared to 2019. Growth will stay weak due to the impact of the coronavirus outbreak. We expect the central bank to ease policy to support growth
- The growth outlook remains supported by domestic demand – especially government infrastructure spending – in some countries such as Indonesia and the Philippines
- India witnessed a broad-based slowdown in 2019, with growth likely slipping from 6.1 per cent in 2018 to 5.0 per cent in 2019
- India is likely to see a gradual recovery to 5.6 per cent in 2020 given challenges in the financial sector, sluggish private investment and limited policy levers domestically

Africa & Middle East

- Growth in Sub-Saharan Africa (SSA) is likely to accelerate in 2020 from a weak base, despite global headwinds
- Non-oil growth will support a strong recovery in Nigeria
- Renewed US-Iran tensions have raised the geopolitical stakes in MENAP with likely spill-overs into the rest of 2020
- OPEC+ cuts constitute a downside risk to oil exporters' recovery in growth in 2020. A sustained expansion in the non-oil economy will depend on fiscal support
- We expect Dubai's hosting of EXPO 2020 to provide a one-off boost to UAE's growth by helping lift UAE's non-oil growth to c3 per cent
- Unlike other regions, there is not much of a dovish wave in SSA. Amid greater risk aversion, central bankers are increasingly wary of capital outflows

Europe & Americas

- US growth is likely to weaken towards trend growth in 2020. Domestic growth is likely to be sluggish given a slowdown in China, the Boeing shutdown and uncertainty related to the US presidential elections. Growth will be supported by a strong labour market and consumer spending
- Fed easing in 2019 is also likely to support growth in 2020. We expect the Fed to remain on hold through 2020 though it could cut rates early if necessary depending upon the evolution of the coronavirus situation
- In 2020, political risks may intensify as the US heads into elections
- For the euro-area, weaker China demand due to the coronavirus outbreak will be a drag on growth while lower oil prices will be growth supportive
- The European Central Bank is likely to stay on hold in 2020, though it could ease if the coronavirus outbreak continues in Q2
- As risks of an imminent Brexit crisis has eased, UK growth is likely to stabilise. Fiscal stimulus is likely to offset some of the headwinds likely to emerge from the post-Brexit UK-EU relationship

Business model

Built on long-term relationships

What makes us different

Our purpose
To drive commerce and prosperity through our unique diversity – is underpinned by our brand promise, **Here for good.**

Client focus

Our clients are our business. We build long-term client relationships through trusted advice, expertise and best-in-class capabilities.

Robust risk management

We are here for the long-term. Effective risk management allows us to grow a sustainable business.

Distinct proposition

Our unique understanding of the markets we operate in and our extensive international network allow us to offer a truly tailored proposition to our clients, combining global expertise and local knowledge.

Sustainable approach to business

We promote social and economic development by contributing to sustainable economic growth through our core business of banking, by being a responsible company and by investing in our communities.

How we are shaping our future

At Standard Chartered Bank, we tailor our business model as needed in order to meet future challenges and opportunities:

- By putting clients at the centre of everything that we do, we make sure that we are developing new products and services that optimally fulfil their needs with the support of state-of-the-art technology
- We help our clients to make the right financial decisions and support them to grow their businesses sustainably
- We strive to remain at the forefront of the fight against financial crime. Achieving the highest standards of conduct is an indispensable part of the sustainability of our business model
- Our unique network and expertise differentiate us from our competition
- We are putting in place the frameworks and guidelines to ensure that our business model is sustainable, enhancing our capabilities and governance for climate risk management

Our resources

We aim to use resources in a sustainable way, to achieve our long-term strategic objectives.

Human capital

Our diversity differentiates us. Achieving our strategic priorities hinges on the way we invest, manage and organise our people, the employee experience we curate and the culture we develop.

Strong brand

We are a leading international banking group with more than 160 years of history. In many of our markets we are a household name.

International network
We have an unparalleled international network, connecting companies, institutions, and individuals to and in some of the world's fastest-growing and most dynamic regions.

Local expertise
We have a deep knowledge of our markets and a privileged understanding of the drivers of the real economy, offering us insights that can help our clients achieve their ambitions.

Financial strength
With over $480 billion in assets on our balance sheet, we are a strong, trusted partner for our clients.

Technology

We possess leading technological capabilities to enable best-in-class customer experience, operations and risk management.

What we deliver

We deliver an extensive set of solutions, products and services, adapted to the needs of our clients

Global	Local
Clients in our global businesses are supported by relationship managers with a global reach	Country-level relationship managers support clients in our local businesses. To ensure efficiency and consistency and to enable greater investment, we have global oversight of our systems and products
Corporate & Institutional Banking	**Retail Banking**
Private Banking	**Commercial Banking**

Products and services

Retail Products
- → Deposits
- → Savings
- → Mortgages
- → Credit cards
- → Personal loans

Wealth Management
- → Investments
- → Portfolio management
- → Insurance and advice
- → Planning services

Corporate Finance
- → Structured and project financing
- → Strategic advice
- → Mergers and acquisitions

Transaction Banking
- → Cash management
- → Payments and transactions
- → Securities services
- → Trade finance products

Financial Markets
- → Investment
- → Risk management
- → Debt capital markets

Financial performance

Income
- → Net interest income
- → Fee income
- → Trading income

Profits

Income gained from providing our products and services minus expenses and impairments

Return on tangible equity

Profit generated relative to tangible equity invested

The value we create

We aim to create long-term value for a broad range of stakeholders, in a sustainable manner

Clients

We enable individuals to grow and protect their wealth. We help businesses to trade, transact, invest and expand. We also help a variety of financial institutions, public sector clients and development organisations with their banking needs.

Colleagues

We believe that great client experience is driven by great colleague experience. We want all our people to pursue their ambitions, deliver with purpose and have a rewarding career enabled by great leaders.

Investors

We aim to deliver robust returns and long-term sustainable value for our investors.

Regulators and governments

We engage with relevant authorities to support effective functioning of the financial system and the broader economy.

Society

We strive to operate as a sustainable and responsible company, driving prosperity through our core business, and collaborating with local partners to promote social and economic development.

Suppliers

We work with local and global suppliers to ensure they can provide the right goods and services for our business, efficiently and sustainably.

Our strategy

The strategy outlined here, refers to our overall Group strategy

Taking Standard Chartered Bank to the next level

Transforming the way we deliver services to meet our clients needs is at the core of our strategic priorities and critical to our success.

We are executing our refreshed strategic priorities that we announced in February 2019. We have made good progress in the year and we are on track to deliver our objectives. Going forward, we remain committed to these objectives while leading the transformation of the banking industry.

Our strategic priorities

1. Purpose and people

Understand our responsibilities: We view our experience and expertise in managing risk across complex markets and products as a competitive advantage. We aim to drive up standards of governance, ensure fair outcomes for clients and markets and continue to partner with others in fighting financial crime. We are further developing our Financial Information Sharing Partnership and increasing our Correspondent Banking Academy Program.

Lead sustainable financing across emerging markets: We are maintaining our focus on supporting sustainable economic growth, expanding renewables financing and investing in sustainable infrastructure where it matters most. We will continue to facilitate the movement of capital to drive positive social and economic impact in our markets.

Support the communities where we live and work: We tackle inequality in our markets through Futuremakers by Standard Chartered, which works with local and global partners to deliver community programmes focused on education, employability and entrepreneurship. Our programmes support young people, particularly girls, women and people with visual impairment. The Standard Chartered Foundation, set up in 2019 to advance charitable purposes, will be the lead delivery partner for Futuremakers.

Maximise return from investment in our people: We want to deliver a client-centric environment with an inclusive culture that capitalises on the experience and unique diversity of our people. We are building a future-ready workforce, embedding digital, agile and people leadership skills. We aim to amplify the impact of our people by deploying them in markets that fit their capabilities and career aspirations.

2. Deliver our network

Leverage our unique footprint: Our unique network is a long-term source of growth and sustainably higher returns. We have continued to deepen our penetration among our core clients to fully realise the revenue potential of our network. Our footprint has enabled us to capture strong client flows as we focus on multinational corporates operating extensively in Asia, Africa and the Middle East, as well as investors and financial institutions that are seeking emerging market solutions. We are also positioned to take advantage of increasing sustainable finance opportunities in emerging markets.

Grow with Africa: We aim to grow with our clients in Africa, focusing on capturing inbound flows of financial institutions, multinational corporations, and Belt & Road clients. Meanwhile, we have continued our Retail Banking client growth in Africa with our cost-efficient digital bank capabilities. We have now acquired over 151k customers on this digital platform (trebling previous client acquisition rates).

3. Grow our affluent business

Meet the wealth needs of the affluent and emerging affluent: By continuously enhancing our offering for clients, we have been able to grow income as we attract new clients and improve our product mix. In 2019 we launched a forex (FX) derivatives platform and introduced a 'Premium' banking service.

Enhance client experience with data and technology: We will increase our investment in data and analytics capabilities to generate a unique understanding of our clients and their needs, and in turn improve our offerings, deliver a personalised experience and increase client engagement. In 2019, we launched the Trade AI Engine in partnership with IBM to enhance the client experience in trade document processing. We have been a core part of developing the FEAT (Fairness, Ethics, Accountability and Transparency) framework in Singapore and are embedding these principles in all AI offerings we develop.

Scale the non-affluent segment in a targeted manner: The rise of the emerging affluent is an important growth opportunity for our business. To profitably capture this opportunity, we will implement new business models, harness technology and work with non-bank partners to acquire and serve non-affluent clients with our target profile in a cost-efficient manner.

4. Optimise low-returning markets

Improve returns in markets where we are an international bank with trusted local capabilities: In markets where we can utilise our local and international capabilities, we have continued to improve our returns through our sharpened participation in Corporate & Institutional Banking and selectively in Commercial Banking and/or Retail Banking. In particular, we have focused on optimising the performance of three high-potential markets, namely India, Indonesia and the UAE.

Accelerate growth in our largest and most profitable markets: In markets where we are a top local universal bank and have attractive returns, we will participate in all of our business segments and invest to grow our market share.

Focus on Corporate & Institutional Banking in other markets: In markets where our capabilities are geared towards international business, we will reinforce our focus on originating and facilitating cross-border business with our Corporate & Institutional Banking presence.

5. Improve productivity

Continue investing in productivity: Our investment in digitisation will continue to support productivity improvements and enhance client experience. We refreshed our digital platform with unified trade and FX capabilities in Corporate & Institutional Banking. In Retail Banking, we launched real-time client onboarding on digital channels and refreshed wealth and FX platforms with full mobile access.

Organise around client journeys: We are shaping our organisation around the journeys of our clients, to better align our processes and way of working with the needs of our clients and partners. In 2019, we launched journeys in cash management cross-border payments, retail credit card and personal loan onboarding, FX, wealth lending, Private Banking onboarding and investment advisory.

Unlock capital and liquidity efficiency: Since making Standard Chartered Bank (Hong Kong) Limited a wholly owned direct subsidiary of PLC, the Group has moved its China, Korea and Taiwan subsidiaries under the new entity. We also consolidated our activities in Singapore in a new legal entity hub. These actions allow more efficient use of capital and liquidity that will over time result in a lower cost of funds for the Group.

6. Transform and disrupt with digital

Transform our Retail Banking business with digital: We have continued our strong momentum in digitising our Retail Banking business. For example, we have rolled out a full-service, cost-efficient digital bank in eight markets in Africa. Going forward, we aim to adapt and replicate these capabilities as appropriate across our footprint to enhance client experience, improve efficiency, gain market share, disrupt and build a future-proof retail bank.

Consolidate strong position with corporate clients: We have been leading disruptive innovations in corporate banking. In 2019, we have launched an open digital platform for small and medium-sized enterprises in India.

We will continue to invest in cutting-edge digital tools and new corporate banking models.

Client segment reviews

Corporate & Institutional Banking

Profit before taxation

$1,303m

underlying basis

$1,244m

statutory basis

Segment overview

Corporate & Institutional Banking supports clients with their transaction banking, corporate finance, financial markets and borrowing needs across markets, providing solutions to clients in some of the world's fastest-growing economies and most active trade corridors.

Our clients include large corporations, governments, banks and investors operating or investing in Asia, Africa and the Middle East. Our strong and deep local presence across these markets enables us to connect our clients multi-laterally to investors, suppliers, buyers and sellers and enable them to move capital, manage risk, invest to create wealth, and co-creating to provide bespoke financing solutions.

We collaborate increasingly with other segments, introducing Commercial Banking services to our clients' ecosystem partners – their networks of buyers, suppliers, customers and service providers – and offering our clients' employees banking services through Retail Banking.

Finally, we are committed to sustainable finance, delivering on our ambitions to increase support and funding for financial products and services that have a positive impact on our communities and environment.

Performance highlights

- Underlying profit before taxation of $1,303 million was up 16 per cent, primarily driven by income up 8 per cent, partly offset by higher impairment.
- Underlying Income of $4,995 million was up 8 per cent driven by higher fees and other income
- Total assets were down 16 per cent reflecting the impact of the movement of assets booked in Hong Kong, China, Korea and Taiwan outside of the Group, as part of the subsidiary reorganisation detailed on page 4.

Retail Banking

Profit before taxation

$361m

underlying basis

$344m

statutory basis

Segment overview

Retail Banking serves individuals and small businesses, with a focus on affluent and emerging affluent in many of the world's fastest-growing cities. We provide digital banking services with a human touch to our clients with services spanning across deposits, payments, financing products and Wealth Management, as well as supporting their business banking needs.

Retail Banking represents approximately one-quarter of the Group's underlying operating income and one-fifth of the Group's underlying operating profit. We are closely integrated with the Group's other client segments, for example offering employee banking services to Corporate & Institutional Banking clients, and Retail Banking provides a high-quality liquidity source for the Group.

Increasing levels of wealth across Asia, Africa and the Middle East support our opportunity to grow the business sustainably. We aim to improve productivity and client experience through driving digitisation, cost efficiencies and simplifying processes.

Performance highlights

- Underlying profit before taxation of $361million was 11 per cent higher driven by higher income, lower expenses and lower impairments
- Underlying income of $2,334 million was up on last year
- Total assets were down 67 per cent reflecting the impact of the movement of assets booked in Hong Kong, China, Korea and Taiwan outside the Group, as part of the subsidiary reorganisation detailed on page 4

Commercial Banking

Profit before taxation

$254m

underlying basis

$252m

statutory basis

Segment overview

Commercial Banking serves local corporations and medium-sized enterprises in several markets across Asia, Africa and the Middle East. We aim to be our clients' main international bank, providing a full range of international financial solutions in areas such as trade finance, cash management, financial markets and corporate finance.

Through our close linkages with Retail Banking and Private Banking, our clients can access additional services they value including employee banking services and personal wealth solutions. We also collaborate with Corporate & Institutional Banking to service their clients' end-to-end supply chains.

Our clients represent a large and important portion of the economies we serve and are potential future multinational corporates. Commercial Banking is at the heart of our shared purpose to drive commerce and prosperity through our unique diversity.

Performance highlights

- Underlying profit before taxation of $254 million was up 195 per cent driven primarily by lower impairment and higher income.
- Underlying income of $899 million was up 5 per cent driver by increase in net interest income.
- Total assets were down 46 per cent reflecting the impact of the movement of assets booked in Hong Kong, China, Korea and Taiwan outside of the Group, as part of the subsidiary reorganisation detailed on page 4

Private Banking

Profit before taxation

$75m

underlying basis

$65m

statutory basis

Segment overview

Private Banking offers a full suite of investment, credit and wealth planning solutions to grow and protect the wealth of high-net worth individuals across our footprint.

Our investment advisory capabilities and product platform are independent from research houses and product providers, allowing us to put client interests at the centre of our business. This is coupled with an extensive network across Asia, Africa and the Middle East which provides clients with relevant market insights and cross-border investment and financing opportunities.

As part of our universal banking proposition, clients can also leverage our global Commercial Banking and Corporate & Institutional Banking capabilities to support their business needs.

Performance highlights

- Underlying profit before taxation of $75 million driven by income growth and lower expenses and includes a $34 million credit towards impairment release
- Underlying income of $366 million was up 3 per cent

Regional reviews

ASEAN & South Asia

Profit before taxation

$1,005m

underlying basis

$1,020m

statutory basis

Region overview

The Group has a long-standing and deep franchise across the ASEAN & South Asia region. As the only international bank present in all 10 ASEAN countries and with meaningful operations across many key South Asian markets, we are in a strong position to be the "go-to" banking partner for our clients. The two markets in the region contributing the highest income are Singapore and India, where we have had a deep-rooted presence for over 160 years.

The strong underlying economic growth in the ASEAN & South Asia region enables us to help our clients achieve their growth ambitions and sustainably improve returns. The region is benefiting from rising trade flows, including activity generated from the Belt and Road initiative, continued strong investment and a rising middle class which is driving consumption growth and improving digital connectivity.

Performance highlights

- Underlying profit before taxation grew by 5 per cent to $1,005 million, driven by higher income and lower expenses, partly offset by higher impairments.
- Underlying income of $4,179 million up 5 per cent driven primarily by higher other income.
- Total assets were up 2 per cent.

Africa & Middle East

Profit before taxation

$674m

underlying basis

$656m

statutory basis

Region overview

We have a deep-rooted heritage of over 160 years in Africa & Middle East and are present in 25 markets, of which the UAE, Nigeria, Pakistan and Kenya are the largest by income. We are present in the largest number of sub-Saharan African markets of any international banking group.

A rich history, deep client relationships and a unique footprint in the region and across key origination centres in Asia, Europe and the Americas enable us to seamlessly support our clients. Africa & Middle East is an important part of global trade and investment corridors, including those on the China's Belt and Road initiative and we are well placed to facilitate these flows.

Macro and geo-political headwinds in 2019 have impacted income momentum across both the Middle East and Africa; however, we remain confident that the opportunities in the region will support long-term sustainable growth for the Group. We continue to invest selectively and drive efficiencies.

Performance highlights

- Underlying profit before taxation of $674 million was 27 per cent higher with lower expenses and improved credit impairment partially offset by lower income.
- Underlying income of $2,551 million down 2 per cent primarily driven by lower net interest income.
- Total assets were up 4 per cent.

Europe & Americas

Profit before taxation

$293m	$261m
underlying basis	statutory basis

Region overview

The Group supports clients in Europe & Americas through hubs in London and New York as well as a presence in several European and Latin American markets. Our extensive expertise in working across our footprint in Asia, Africa and the Middle East allows us to offer our clients unique network and product capabilities.

The region is home to the Group's two biggest payment clearing centres and the largest trading room. Over 80 per cent of the region's income derives from Financial Markets and Transaction Banking products. The business we do across the Group with clients based in Europe & Americas therefore generates above average returns.

Our Private Banking business focuses on serving clients with linkages to our footprint markets.

Performance highlights

- Underlying profit before taxation of $293 million was 58 per cent higher driven by higher income and lower expenses, partly offset by higher impairments
- Underlying income of $1,829 million was up 8 per cent on the back of higher other income partly offset by decline in net interest income.
- Total assets grew 15 per cent.

Financial review

Significant improvement on a fundamentally more resilient platform

Underlying performance summary

Continuing Operations

Underlying profits before taxation for the year is up 24% driven by 4% growth in income and 2% decline in operating expenses. On a statutory basis the profit before tax has improved on the prior year primarily due to lower provision for regulatory matters.

Discontinued Operations

As a result of the Group subsidiary reorganisation, a discontinued operation loss of $4,573 million was primarily attributable to;

- The loss on disposals of Korea ($2,258 million) and China ($731 million), calculated as the difference between the consideration received and net assets transferred of each subsidiary;
- The recycling of the translation reserve on transfer of the subsidiaries ($1,432 million); and
- Goodwill loss on transfer ($618 million).

These losses were offset by the profit after tax each subsidiary earned whilst still within the Group during the year of $595 million. (Hong Kong for 2 months, China for 5 months, Korea and Taiwan for 9 months). In the prior year the 4 subsidiaries transferred earned $1,950 million.

Continuing Operations	**2019 $million**	Restated 2018[1] $million	Change %
Net Interest income	**4,470**	4,739	(6)
Other income	**4,964**	4,364	14
Underlying operating income	**9,434**	9,103	4
Other operating expenses	**(6,280)**	(6,437)	2
UK bank levy	**(347)**	(324)	(7)
Underlying operating expenses	**(6,627)**	(6,761)	2
Underlying operating profit before impairment and taxation	**2,807**	2,342	20
Credit impairment	**(697)**	(659)	(6)
Other impairment	**(11)**	(21)	48
Profit from associates and joint ventures	**7**	33	(79)
Underlying profit before taxation	**2,106**	1,695	24
Provision for regulatory matters	**(226)**	(900)	75
Restructuring	**(129)**	(282)	54
Other items	**(32)**	6	nm[2]
Statutory profit before taxation	**1,719**	519	231
Taxation	**(796)**	(1,058)	25
Profit/(loss) from continuing operations	**923**	(539)	271
(Loss)/profit from discontinued operations	**(4,573)**	1,950	nm[2]
KPIs on continuing operations			
Underlying return on tangible equity (%)	**4.1**	1.3	
Statutory return on tangible equity (%)	**2.2**	(5.2)	
Common Equity Tier 1 (%)	**12.4**	15.0	

1 The Group has changed its accounting policies for net interest income and net trading income. Refer to Note 1 to the financial statements

2 Not meaningful

Income

Operating income for the year is up 4%, primarily driven by higher income across all business segments except for central and other items. At a regional level, income growth has been driven primarily by ASA and Europe & Americas.

Expenses

Operating expenses excluding Bank levy are down 2% generating 6% positive income-to-cost operating leverage (jaws). Lower expenses for the year reflect the continued effort in generating efficiencies with both staff and premises costs down year on year.

Impairment

Total underlying credit impairment at $697 million for the year (2018: $659 million) is 6% higher mainly due to increase in stage 1 and stage 2 impairments around half of which related to a deterioration in macroeconomic variables.

Profit from associates and joint ventures

The Group's principal joint venture is PT Bank Permata Tbk (Permarta). The Group's share of profit of Permata amounts to $48 million (2018: $26 million) and the Group's share of net assets was $800 million (2018: $717 million).

In December 2019 the Group signed a conditional share purchase agreement to sell their 44.56% equity interest in Permata, subject to regulatory and purchaser shareholder approvals. Upon completion of the Transaction, SCB will cease to have any equity interest in Permata. The Group has classified the investment in associate as held for sale. The sale price less costs to sell is higher than the carrying amount of the investment, and as such no impairment has been recognised. As a result, the Group's share of profit of Permata is excluded from underlying results.

The Group's investment in China Bohai Bank which is directly held by Standard Chartered Bank Hong Kong Limited was transferred out of the Group in 2019 as part of the subsidiary reorganisation.

Underlying profit before tax by client segment and geographic region

	2019 $million	2018 $million	Change %
Corporate & Institutional Banking	1,303	1,122	16
Retail Banking	361	324	11
Commercial Banking	254	86	195
Private Banking	75	10	650
Central & other items (segment)	113	153	(26)
Underlying profit before taxation	**2,106**	1,695	24
ASEAN & South Asia	1,005	957	5
Africa & Middle East	674	530	27
Europe & Americas	293	186	58
Central & other items (region)	134	22	nm[1]
Underlying profit before taxation	**2,106**	1,695	24

[1]Not meaningful

Credit quality

Credit Quality was broadly stable in the year compared to last year. The Group continues to focus on investment grade loan originations and our Investment grade corporate exposures remain stable at 62 per cent. The Group remains vigilant as some of our markets have experienced significant volatility.

	2019[1] $million	2018[1,2,3] $million		
	Total	Ongoing business	Liquidation portfolio	Total
Gross loans and advances to customers[4]	144,324	261,221	1,769	262,990
Of which stage 1 and 2	137,651	254,449	86	254,535
Of which stage 3	6,673	6,772	1,683	8,455
Expected credit loss provisions	(5,143)	(5,054)	(1,374)	(6,428)
Of which stage 1 and 2	(511)	(838)	(4)	(842)
Of which stage 3	(4,632)	(4,216)	(1,370)	(5,586)
Net loans and advances to customers	139,181	256,167	395	256,562
Of which stage 1 and 2	137,140	253,611	82	253,693
Of which stage 3	2,041	2,556	313	2,869
Cover ratio of stage 3 before/after collateral (%)	69 / 86	62 / 82	81 / 95	66 / 85
Credit grade 12 accounts ($million)	1,484	1,437	86	1,523
Early alerts ($million)	4,649	4,767	-	4,767
Investment grade corporate exposures (%)	62	62	-	62

1 Balances for 2019 and 2018 reflect interest due but unpaid together with equivalent credit impairment charge
2 2018 stage 3 balances, provisions and cover ratios have been restated
3 With effect from 1 January 2019, the liquidation portfolio has been included within the underlying portfolio. Prior periods have not been restated
4 Includes reverse repurchase agreements and other similar secured lending held at amortised cost of $1,339 million at 31 December 2019 (2018: $3,151 million)

Restructuring and other items

The Group's statutory performance is adjusted for profits or losses of a capital nature, amounts consequent to investment transactions driven by strategic intent, other infrequent and/or exceptional transactions that are significant or material in the context of the Group's normal business earnings for the period and items which management and stakeholders would ordinarily identify separately when assessing underlying performance period-by period.

The provision for regulatory matters primarily relates to the agreement to pay monetary penalties following the resolution of investigations into historical sanctions and financial crime control issues, described further in Note 25 to the financial statements.

The Group incurred net restructuring charges of $129 million in 2019 primarily due to the planned initiatives to reduce ongoing costs. Other normalised items ($32 million) include goodwill impairment ($23 million), debt buy back ($57 million) partly offset by share of profits from the joint venture investment in PT Bank Permata ($48 million).

	2019 $million			2018 $million		
	Provision for regulatory matters	**Restructuring**	**Other items**	Provision for regulatory matters	Restructuring	Other items
Operating income	**-**	**1**	**(57)**	-	(184)	6
Operating expenses	**(226)**	**(128)**	**-**	(900)	(169)	-
Credit impairment	**-**	**(2)**	**-**	-	72	-
Other impairment	**-**	**-**	**(23)**	-	(1)	-
Profit from associates and joint ventures	**-**	**-**	**48**	-	-	-
Profit/(loss) before taxation	**(226)**	**(129)**	**(32)**	(900)	(282)	6

Balance sheet and liquidity

The Group's balance sheet is strong, highly liquid and diversified. Loans and advances to customers were up 1 per cent on a continuing basis at $139,181 million with broad-based growth across a range of products.

Customer accounts were up 2 per cent on a continuing basis as the Group continued to focus on improving the quality and mix of its liabilities. The advances-to-deposits ratio was broadly flat year on year.

	2019	2018 (restated)[1] Continuing operations	2018 Continuing and discontinued operations	Increase /(decrease) Continuing operations	Increase /(decrease) Continuing operations
	$million	$million	$million	$million	%
Assets					
Loans and advances to banks	**36,948**	34,692	61,411	2,256	7
Loans and advances to customers	**139,181**	137,714	256,562	1,467	1
Other assets	**310,289**	262,040	371,921	48,249	18
Total assets	**486,418**	434,446[2]	689,894	51,972	12
Liabilities					
Deposits by banks	**24,126**	24,903	29,715	(777)	(3)
Customer accounts	**210,262**	205,494	391,013	4,768	2
Other liabilities	**216,989**	171,049	216,335	45,940	27
Total liabilities	**451,377**	401,446	637,063	49,931	12
Equity	**35,041**	33,000	52,831	2,041	6
Total equity and liabilities	**486,418**	434,446	689,894	51,972	12
Advances-to-deposits ratio[3]	**62%**	63%	65%		
Liquidity coverage ratio	**over 100%**	over 100%	over 100%		

1 Comparative is restated to show only Continuing operations

2 Total assets (continuing operations) have decreased by $255 billion as a result of the transfer of the Greater China and North Asia subsidiaries to Standard Chartered PLC as part of the subsidiary reorganisation completed during the year

3 In calculating the advances-to-deposits ratio, the Group now excludes $9,109 million held with central banks (2018: $7,412 million) that have been confirmed as repayable at the point of stress

	2019 $million	2018 $million
Common Equity Tier 1 capital	**22,925**	38,553
Additional Tier 1 (AT1) capital instruments	**6,606**	6,480
Tier 1 capital	**29,531**	45,033
Tier 2 capital	**10,336**	10,431
Total capital	**39,867**	55,464
Common Equity Tier 1 capital ratio end point (%)	**12.4**	15.0
Total capital ratio transitional (%)	**21.5**	21.5
Leverage ratio (%)	**4.8**	5.4

Capital base and ratios

Following the transfer of shares in the Group's entities in Hong Kong, China, Korea and Taiwan to other entities within the PLC Group as part of the restructuring exercise to create a GCNA hub entity under the Group's parent PLC, the Group's CET1 ratio capital position remained strong at 12.4%. Compared to 31 December 2018, the Group's CET1 ratio declined 262 bps mainly due to the creation of the GCNA hub. The Group continues to operate through a network of branches and subsidiaries, all of which remain above any applicable regulatory CET1 requirement or CET1 risk appetite.

Summary and outlook

The momentum in 2019 continued in the opening weeks of 2020 but lower interest rates, slower global economic growth, and the unpredictable impact of the recent novel coronavirus outbreak will likely result in income growth in 2020 below our medium-term range target range.

These headwinds are expected to be transitory, but it will take longer to achieve an improved RoTE ratio unless they recede in the near-term.

Underlying versus statutory results reconciliations

Reconciliation between underlying and statutory results are set out in the tables below:

Operating income by client segment

	2019					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Underlying operating income	**4,995**	**2,334**	**899**	**366**	**840**	**9,434**
Restructuring	**-**	**-**	**1**	**-**	**-**	**1**
Losses arising on repurchase of senior and subordinated liabilities	**-**	**-**	**-**	**-**	**(57)**	**(57)**
Statutory operating income	**4,995**	**2,334**	**900**	**366**	**783**	**9,378**

	2018					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Underlying operating income	4,616	2,326	855	355	951	9,103
Restructuring	(193)	-	(1)	2	8	(184)
Gains arising on repurchase of senior and subordinated liabilities	3	-	-	-	3	6
Statutory operating income	4,426	2,326	854	357	962	8,925

Operating income by region

	2019				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Underlying operating income	**4,179**	**2,551**	**1,829**	**875**	**9,434**
Restructuring	**(2)**	**-**	**-**	**3**	**1**
Losses arising on repurchase of senior and subordinated liabilities	**-**	**-**	**-**	**(57)**	**(57)**
Statutory operating income	**4,177**	**2,551**	**1,829**	**821**	**9,378**

	2018				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Underlying operating income	3,963	2,591	1,693	856	9,103
Restructuring	21	1	3	(209)	(184)
Gains arising on repurchase of senior and subordinated liabilities	-	-	3	3	6
Statutory operating income	3,984	2,592	1,699	650	8,925

Profit before taxation

	2019						
	Underlying $million	Provision for regulatory matters $million	Restructuring $million	Losses arising on repurchase of senior and subordinated liabilities $million	Goodwill impairment $million	Share of profits of PT Bank Permata Tbk joint venture $million	Statutory $million
Operating income	9,434	-	1	(57)	-	-	9,378
Operating expenses	(6,627)	(226)	(128)	-	-	-	(6,981)
Operating profit/(loss) before impairment losses and taxation	2,807	(226)	(127)	(57)	-	-	2,397
Credit impairment	(697)	-	(2)	-	-	-	(699)
Other impairment	(11)	-	-	-	(23)	-	(34)
Profit from associates and joint ventures	7	-	-	-	-	48	55
Profit/(loss) before taxation	2,106	(226)	(129)	(57)	(23)	48	1,719

	2018						
	Underlying $million	Provision for regulatory matters $million	Restructuring $million	Gains arising on repurchase of senior and subordinated liabilities $million	Goodwill impairment $million	Share of profits of PT Bank Permata Tbk joint venture $million	Statutory $million
Operating income	9,103	-	(184)	6	-	-	8,925
Operating expenses	(6,761)	(900)	(169)	-	-	-	(7,830)
Operating profit/(loss) before impairment losses and taxation	2,342	(900)	(353)	6	-	-	1,095
Credit impairment	(659)	-	72	-	-	-	(587)
Other impairment	(21)	-	(1)	-	-	-	(22)
Profit from associates and joint ventures	33	-	-	-	-	-	33
Profit/(loss) before taxation	1,695	(900)	(282)	6	-	-	519

Profit before taxation by client segment

	2019					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Operating income	4,995	2,334	899	366	840	9,434
External	5,173	2,038	1,082	226	915	9,434
Inter-segment	(178)	296	(183)	140	(75)	-
Operating expenses	(3,232)	(1,799)	(547)	(325)	(724)	(6,627)
Operating profit before impairment losses and taxation	1,763	535	352	41	116	2,807
Credit impairment	(455)	(175)	(98)	34	(3)	(697)
Other impairment	(5)	1	-	-	(7)	(11)
Profit from associates and joint ventures	-	-	-	-	7	7
Underlying profit before taxation	1,303	361	254	75	113	2,106
Provision for regulatory matters	-	-	-	-	(226)	(226)
Restructuring	(59)	(17)	(2)	(10)	(41)	(129)
Losses arising on repurchase of senior and subordinated liabilities	-	-	-	-	(57)	(57)
Goodwill impairment	-	-	-	-	(23)	(23)
Share of profits of PT Bank Permata Tbk joint venture	-	-	-	-	48	48
Statutory profit/(loss) before taxation	1,244	344	252	65	(186)	1,719

	2018					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Operating income	4,616	2,326	855	355	951	9,103
External	4,869	2,212	1,080	207	735	9,103
Inter-segment	(253)	114	(225)	148	216	-
Operating expenses	(3,204)	(1,819)	(546)	(345)	(847)	(6,761)
Operating profit before impairment losses and taxation	1,412	507	309	10	104	2,342
Credit impairment	(262)	(183)	(223)	-	9	(659)
Other impairment	(28)	-	-	-	7	(21)
Profit from associates and joint ventures	-	-	-	-	33	33
Underlying profit/(loss) before taxation	1,122	324	86	10	153	1,695
Provision for regulatory matters	(50)	-	-	-	(850)	(900)
Restructuring	(183)	(49)	(6)	(25)	(19)	(282)
Gains arising on repurchase senior and of subordinated liabilities	3	-	-	-	3	6
Statutory profit/(loss) before taxation	892	275	80	(15)	(713)	519

Profit before taxation by region

	2019				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Operating income	4,179	2,551	1,829	875	9,434
Operating expenses	(2,669)	(1,746)	(1,435)	(777)	(6,627)
Operating profit before impairment losses and taxation	1,510	805	394	98	2,807
Credit impairment	(504)	(132)	(101)	40	(697)
Other impairment	(1)	1	-	(11)	(11)
Profit from associates and joint ventures	-	-	-	7	7
Underlying profit before taxation	1,005	674	293	134	2,106
Provision for regulatory matters	-	-	-	(226)	(226)
Restructuring	(33)	(18)	(32)	(46)	(129)
Losses arising on repurchase of senior and subordinated liabilities	-	-	-	(57)	(57)
Goodwill impairment	-	-	-	(23)	(23)
Share of profits of PT Bank Permata Tbk joint venture	48	-	-	-	48
Statutory profit/(loss) before taxation	1,020	656	261	(218)	1,719

	2018				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Operating income	3,963	2,591	1,693	856	9,103
Operating expenses	(2,715)	(1,809)	(1,442)	(795)	(6,761)
Operating profit before impairment losses and taxation	1,248	782	251	61	2,342
Credit impairment	(322)	(252)	(82)	(3)	(659)
Other impairment	5	-	17	(43)	(21)
Profit from associates and joint ventures	26	-	-	7	33
Underlying profit/(loss) before taxation	957	530	186	22	1,695
Provision for regulatory matters	-	-	(50)	(850)	(900)
Restructuring	105	(100)	(11)	(276)	(282)
Gains arising on repurchase of senior and subordinated liabilities	-	-	3	3	6
Statutory profit/(loss) before taxation	1,062	430	128	(1,101)	519

Return on tangible equity (RoTE)

	2019 %	2018 %
Underlying RoTE	**4.1**	1.3
Provision for regulatory matters	**(1.1)**	(4.6)
Restructuring		
Of which: Income	**-**	(0.9)
Of which: Expenses	**(0.7)**	(0.9)
Of which: Credit impairment	**-**	0.4
Gains / (losses) arising on repurchase of senior and subordinated liabilities	**(0.3)**	-
Goodwill impairment	**(0.1)**	-
Share of profits of PT Bank Permata Tbk joint venture	**0.2**	-
Tax on normalised items	**0.1**	(0.5)
Statutory RoTE	**2.2**	(5.2)

Standard Chartered Bank
Strategic report

Alternative performance measures

An alternative performance measure is a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework. The following are key alternative performance measures used by the Group to assess financial performance and financial position.

Measure	Definition
Constant currency basis	A performance measure on a constant currency basis is presented such that comparative periods are adjusted for the current year's functional currency rate. The following balances are presented on a constant currency basis when described as such: → Operating income → Operating expenses → Profit before tax → RWAs or Risk-weighted assets
Underlying	A performance measure is described as underlying if the statutory result has been adjusted for restructuring and other items representing profits or losses of a capital nature; amounts consequent to investment transactions driven by strategic intent; and other infrequent and/or exceptional transactions that are significant or material in the context of the Group's normal business earnings for the period, and items which management and investors would ordinarily identify separately when assessing performance period-by-period. A reconciliation between underlying and statutory performance is contained in Note 2 to the financial statements. The following balances and measures are presented on an underlying basis when described as such: → Operating income → Operating expense → Profit before tax → Cost to income ratio → Jaws → RoTE or Return on tangible equity
Advances-to-deposits/customer advances-to-deposits (ADR) ratio	The ratio of total loans and advances to customers relative to total customer accounts, excluding approved balances held with central banks, confirmed as repayable at the point of stress. A low advances-to-deposits ratio demonstrates that customer accounts exceed customer loans resulting from emphasis placed on generating a high level of stable funding from customers.
Cost to income ratio	The proportion of total operating expenses to total operating income.
Cover ratio	The ratio of impairment provisions for each stage to the gross loan exposure for each stage.
Cover ratio after collateral / cover ratio including collateral	The ratio of impairment provisions for Stage 3 loans and realisable value of collateral held against these non-performing loan exposures to the gross loan exposure of Stage 3 loans.
Jaws	The difference between the rates of change in revenue and operating expenses. Positive jaws occurs when the percentage change in revenue is higher than, or less negative than, the corresponding rate for operating expenses.
Loan loss rate	Total credit impairment for loans and advances to customers over average loans and advances to customers.
Net tangible asset value per share	Ratio of net tangible assets (total tangible assets less total liabilities) to the number of ordinary shares outstanding at the end of a reporting period.
NIM or Net interest margin	Net interest income adjusted for interest expense incurred on amortised cost liabilities used to fund the Financial Markets business, divided by average interest-earning assets excluding financial assets measured at fair value through profit or loss.
RAR per FTE or Risk adjusted revenue per full-time equivalent	Risk adjusted revenue (RAR) is defined as underlying operating income less underlying impairment over the past 12 months. RAR is then divided by the 12 month rolling average full-time equivalent (FTE) to determine RAR per FTE.
RoE or Return on equity	The ratio of the current year's profit available for distribution to ordinary shareholders to the weighted average ordinary shareholders' equity for the reporting period.
RoTE or Return on ordinary shareholders tangible equity	The ratio of the current year's profit available for distribution to ordinary shareholders, to the weighted average ordinary shareholders' equity less the average goodwill and intangible assets for the reporting period. Where a target RoTE is stated, this is based on profit and equity expectations for future periods.
TSR or Total shareholder return	The total return of the Group's equity (share price growth and dividends) to investors.

Risk review

Staying strong in challenging times

Following the creation of the Greater China & North Asia hub in October 2019, the PLC Group has operated under a two-hub governance model. As the Group covers the vast majority of the PLC Group's total footprint, and the Group's operations are global, the same risks and uncertainties will apply to both the Group and PLC Group. Given this level of overlap, the board and committee governance of the Company runs in parallel with that of PLC, but the Standard Chartered Bank Board of Directors ("Court"), oversee and manage the risks specific to the Group. Ultimate responsibility for risk management rests with the Court while executive responsibility rests with two management- level committees namely Standard Chartered Bank Executive Risk Committee and Standard Chartered Bank Asset and Liability Management Committee. The Company aims to adopt the Standard Chartered PLC Enterprise Risk Management Framework and elaborate on its own Risk Appetite at the legal entity level in the course of 2020. Therefore, the risk management approach described across this Risk Review is written in the context of PLC and is consistent with the risk management practices of the Company.

2019 saw considerable geopolitical and macroeconomic uncertainty, with global growth slowing and the long-term impacts of US-China trade tensions, low interest rates, social unrest in Hong Kong and Brexit dominating the financial landscape. This has continued into 2020, with the recent novel coronavirus (Covid-19) outbreak affecting many of our key markets. While ensuring appropriate support of clients, we have taken measures to ensure the ongoing effectiveness of our risk management, maintaining a strong, diversified and resilient portfolio; and ensuring that areas of growth are well controlled and sustainable. Asset quality has remained broadly stable, although credit impairment was higher than 2018 on a continuing basis. Our capital and liquidity positions remain at healthy levels.

We are constantly scanning the risk landscape for new areas of potential concern and in 2020 we have elevated Model Risk to a Principal Risk Type recognising the importance of Model Risk to our business. We have also identified Climate Risk as a material cross-cutting risk that should be considered alongside multiple risk types. Sustainability remains a core item on our agenda and our adoption of the UN's Principles for Responsible Banking demonstrates our commitment to provide the right outcomes for all our stakeholders. We continue to invest in technology to further enhance our risk management capabilities.

An update on our key risk priorities

In view of the challenging risk environment it is essential that we continue to optimise the way risk is managed across the Group. Innovation is at the heart of our agenda, and we are making progress on the Risk, and Conduct, Financial Crime and Compliance (CFCC) priorities set out at half year:

Strengthen our risk culture: Embedding a healthy risk culture continues to be a core objective across all areas of the PLC Group. It underpins an enterprise-level ability to identify and assess, openly discuss, and take prompt action to address all existing and emerging risks. Our PLC Group Enterprise Risk Management Framework (ERMF) has been embedded and rolled out to all countries. It sets out the guiding principles for our people, enabling us to have integrated and holistic risk conversations across the PLC Group. In 2019, we increased focus on non-financial risks and are implementing a revised framework for the management of Operational Risk. Internal messaging from senior management promotes a healthy risk culture by valuing risk-based thinking across each line of defence, encouraging risk awareness, challenging the status quo and creating a transparent, safe and open environment for employees to communicate risk concerns.

Enhance information and cyber security (ICS): A key part of our strategy has been investment in digitisation and partnerships to better serve our clients. A new PLC Group ICS strategy has been developed to align with the overall corporate strategy and drive cohesion on managing ICS Risk. The refreshed approach saw the following deliverables in 2019: an enhanced operating model to clarify accountabilities between the first and second lines of defence; global initiatives to further enhance our cyber capabilities; increased training and awareness alongside crisis management exercises to ensure business responses with focus on clients and critical services; and an enhanced ICS Framework, which has facilitated greater insights into our risk position. In 2020, we will work to implement enhanced ICS capabilities across all our applications and businesses.

Managing Climate Risk: Climate change remains one of the greatest challenges facing the world today, given its widespread and proven impacts on the physical environment and human health, and potential to adversely impact economic growth. We recognise the need to manage both our contribution through direct and financed emissions, and the financial and non-financial risks arising from climate change, and have committed to measure, manage and ultimately reduce the emissions linked to our financing in line with the Paris Agreement. In support of this, in December 2019 we announced a substantial new clean technology and renewables target, and that we will only support clients who actively transition their business to generate less than 10 per cent of earnings from thermal coal by 2030. Governance around management of Climate Risk was significantly strengthened in 2019. To provide oversight on the development and implementation of the Climate Risk framework a Climate Risk Management Forum has been appointed that includes senior leaders from the business, risk and strategy. We have also partnered with external experts to further assess the impact of climate related risks, including engaging Imperial College London as academic advisers and piloting the Munich Re tool for physical risk assessments. Climate Risk has been identified as a material cross-cutting risk and multiple workstreams are underway to incorporate it into the relevant Principal Risk Type Frameworks. Our 2019 Taskforce for Climate-related Financial Disclosures Report provides further details on the our progress.

Manage financial crime risks: We remain committed to our mission of "partnering to lead in the fight against financial crime" and are delivering on the remediation actions arising from the 2019 resolutions. In 2019, we reached a milestone with the termination of the Independent Consultant appointed by the New York State Department of Financial Services (NY DFS), and the business restrictions previously imposed by the NY DFS are no longer in effect as of 31 December 2019. We reclassified the Fraud Risk sub-type from Operational Risk to Financial Crime Risk, thus providing new insights and a more holistic view of Financial Crime threats. We have also further developed our Fighting Financial Crime microsite as well as delivering on many of our system upgrades. We are demonstrating delivery against our mission through our Correspondent Banking Academies, our ongoing deployment of upgraded systems for AML, sanctions, fraud and customer due diligence, and our plan to collaborate with Quantexa, which will support the Financial Crime team in developing innovative solutions to tackle challenges including money laundering, fraud and terrorist financing. We also contribute to industry thinking on reform and information sharing partnerships in a number of markets, as well as working with international forums such as the Wolfsberg Group.

Strengthen our conduct environment: Conduct remains a key focus area. The emphasis in 2019 was to further embed the framework at a more granular level across our footprint, businesses and functions, and ensure that conduct considerations are central to all decisions that we take. The Conduct Risk Type Framework provides a robust and consistent approach to help the identification, monitoring and management of Conduct Risk. The Conduct Risk Appetite metrics were also revised to focus on our main Conduct Risk outcomes: fair outcomes for clients; employee welfare and relations; and effective markets and stakeholder confidence, to provide a better view of the key Conduct Risks that arise. Conduct Plans are a key part of our framework and they identify, document and develop action plans to mitigate Conduct Risks. Ownership of Conduct Plans is with the first line of defence, with review and challenge from CFCC. These will play a significant part in helping us to uphold the highest standards of conduct, acknowledging that while incidents cannot be entirely avoided, we have no appetite for wilful or negligent misconduct.

Enhance our Risk and CFCC infrastructure: We continue to invest in our Risk and CFCC infrastructure to streamline processes, serve clients better and drive internal efficiencies. This includes improvements to stress testing, exposure management and data quality by using agile delivery methods to enhance our workflow and reporting systems. We are further developing our data and analytics infrastructure to enhance the speed and quality of risk decision-making; this includes initiatives driven both by internal innovation and collaboration with fintech partners. Our control capability has continued to strengthen with machine learning functionality and increased scope of surveillance and financial crime platforms, as well as adding availability on mobile devices to provide on-demand access to our automated askCompliance portal. We have also made structural changes including integrating the global financial crime and regulatory compliance teams to provide a single point of contact for the business. This has simplified our structure resulting in a greater client focus with reduced hierarchy, and faster decision-making. A new country operating model has also been designed and is being implemented across the Group. This mirrors the changes (and resulting benefits) at global level by bringing together the financial crime and regulatory compliance teams, providing local teams with better access to specialist knowledge at a regional and group level.

Enhance our Model Risk management: We have elevated Model Risk to a Principal Risk Type and identified its development as a key priority. In 2019, we launched the Model Risk Management Strategic Enhancement Programme which will improve our current capabilities. We have adopted a holistic approach, focusing on areas such as policy and governance, model inventory, Model Risk appetite and risk assessment, roles and responsibilities across first and second line activities, model development and validation standards, model portfolio optimisation and mitigation techniques. We will continue to invest in 2020 to embed the enhanced Model Risk management framework.

Our risk profile and performance in 2019

Our 2019 risk profile indicates strong performance that reflects the good work done in past years to improve our portfolios and secure our foundations, which will serve us well as the macroeconomic environment becomes more challenging. Despite an external backdrop of increasing geopolitical and macroeconomic turbulence, we have remained resilient, with the Group's asset quality remaining broadly stable as well as our capital and liquidity metrics continuing to be at healthy levels. We remain vigilant against existing and emerging risks that may impact our business and utilise portfolio reviews and stress testing to assess the risk landscape.

Credit impairment is $697 million (2018: $659 million on a continuing basis to exclude the impact of Greater China and North Asia Hub) mainly due to an increase of $122m in stage 1 and stage 2 impairments, around half of which related to a deterioration in macroeconomic variables. Stage 3 impairments decreased by $81m despite a $141 million charge booked in the fourth quarter relating to a single client exposure in ASEAN & South Asia.

Gross credit impaired (Stage 3) loans reduced by 21 per cent to $6.7 billion (2018: $8.5 billion), of which $1 billion decrease is due to write offs and repayments mainly in Corporate and Institutional Banking and Commercial banking, and $0.8 billion decrease is due to the transfer of assets booked in Hong Kong, China, Korea and Taiwan outside of the Group. The Stage 3 cover ratio increased to 69 per cent (2018: 66 per cent) due to new impairment charges, repayments and upgrades in Corporate and Institutional Banking. The cover ratio including collateral stands at 86 per cent (2018: 85 per cent).

Further details on our risk performance for 2019 are set out in the Risk profile section pages 45 to 137.

An update to our risk management approach

Since its launch in 2018, we have embedded the Enterprise Risk Management Framework (ERMF) across PLC Group, including branches and subsidiaries. This allows us to identify and manage risks holistically, as well as strengthening our capabilities to understand, articulate and control the nature and level of the risks we take while still effectively serving our clients.

In 2019, we reviewed the ERMF. As part of the review, we have elevated Model Risk to a Principal Risk Type with enhancements to the approach to Model Risk management. This was previously a risk sub-type within the Operational Risk Type Framework. In addition to the Principal Risk Types, Climate Risk is now recognised as a material cross-cutting risk that manifests through other relevant Principal Risk Types. Climate Risk is defined as the potential for financial loss and non-financial detriments arising from climate change and society's response to it. We aim to measure and manage financial and non-financial risks from climate change, and reduce emissions related to our own activities and those related to the financing of clients in alignment with the Paris Agreement. Over time, consideration will be given as to whether any of the other existing or emerging risks should be treated as material cross-cutting risks.

Principal risks are those risks that are inherent in our strategy and business model. These are formally defined in our ERMF which provides a structure for monitoring and control of these risks through the Board-approved PLC Group Risk Appetite. We will not compromise adherence to its Risk Appetite in order to pursue revenue growth or higher returns. The table below provides an overview of the PLC Group's principal risks and how these are managed.

Principal Risk Types	How these are managed
Credit Risk	PLC Group manages its credit exposures following the principle of diversification across products, geographies, client segments and industry sectors
Traded Risk	PLC Group should control its trading portfolio and activities to ensure that traded risk losses (financial or reputational) do not cause material damage to the PLC Group's franchise
Capital and Liquidity Risk	PLC Group should maintain a strong capital position including the maintenance of management buffers sufficient to support its strategic aims and hold an adequate buffer of high-quality liquid assets to survive extreme but plausible liquidity stress scenarios for at least 60 days without recourse to extraordinary central bank support
Country Risk	PLC Group manages its Country Risk exposures following the principle of diversification across geographies and controls the business activities in line with the level of Jurisdiction Risk
Reputational Risk	PLC Group aims to protect the franchise from material damage to its reputation by ensuring that any business activity is satisfactorily assessed and managed by the appropriate level of management and governance oversight
Operational Risk[1]	PLC Group aims to control operational risks to ensure that operational losses (financial or reputational), including any related to conduct of business matters, do not cause material damage to the PLC Group's franchise
Compliance Risk	The PLC Group has no appetite for breaches in laws and regulations, while recognising that regulatory non-compliance cannot be entirely avoided the PLC Group strives to reduce this to an absolute minimum
Conduct Risk	PLC Group has no appetite for negative Conduct Risk outcomes arising from negligent or wilful actions by the PLC Group or individuals recognising that while incidents are unwanted, they cannot be entirely avoided
Financial Crime Risk	PLC Group has no appetite for breaches in laws and regulations related to Financial Crime, recognising that whilst incidents are unwanted, they cannot be entirely avoided
Information and Cyber Security Risk	PLC Group seeks to avoid risk and uncertainty for our critical information assets and systems and has a low appetite for material incidents affecting these or the wider operations and reputation of the bank
Model Risk[2]	PLC Group aims to control Model Risk through appropriate level of governance and oversight to protect the franchise from losses that may occur as a consequence of decisions or the risk of mis-estimation that could be principally based on the output of models due to errors in the development, implementation or use of such models

1 Risks arising from execution capability, governance, reporting, operational resilience (including third party vendor services, and system availability) are managed by the Operational Risk Type Framework. For further details please refer to page 120

2 Model Risk was added as a Principal Risk Type effective from January 2020. Further details on the Model Risk framework will be provided in the 2020 Annual Report

Further details of our Principal Risks and how these are being managed are set out in the Principal Risks section pages 109 to 128)

Emerging Risks

Emerging risks refer to unpredictable and uncontrollable outcomes from certain events and circumstances which may have the potential to impact our business materially. These include near-term risks that are on the horizon and can be measured or mitigated to some extent, as well as longer-term uncertainties that are on the radar but not yet fully measurable.

The table below summarises the emerging risks that PLC Group faces, and the steps we are taking to manage them.

Emerging Risks	Risk trend since 2018[1]	How these are mitigated/next steps
Geopolitical events, in particular: extended trade tensions driven by geopolitical and trade concerns, unrest in Hong Kong, Middle East geopolitical tensions, Brexit implications, and Japan-Korea diplomatic dispute	Risk heightened in 2019	• We monitor and assess geopolitical events and act as appropriate to ensure we minimise the impact to the PLC Group and our clients • We conduct stress tests and portfolio reviews at PLC Group, country and business level to assess the impact of extreme but plausible geopolitical events
Moderation of growth in key footprint markets led by China, political volatility, novel coronavirus and disruptions to global supply chains	Risk heightened in 2019	• We monitor economic trends and conduct stress tests and portfolio reviews at a PLC Group, country and business level to assess the impact of extreme but plausible events • A global downturn with shocks concentrated on China and countries with close trade links with China is one of the regularly run Traded Risk stress tests • The PLC Group has robust Business Continuity Plans that are reviewed regularly to manage a range of scenarios
Climate-related transition and physical risks[2]	Risk heightened in 2019	• We are developing a Climate Risk framework to deliver a consistent PLC Group-wide approach to climate risk management. We are also a member of the Risk Management Working Group under the Bank of England's Climate Financial Risk Forum • We have a public target to fund and facilitate $35 billion towards renewable energy from 2020 to the end of 2024
Interbank offered rate (IBOR) discontinuation and transition	Risk heightened in 2019	• We have implemented a global programme to manage all aspects of the transition • We are actively participating in and contributing to industry associations and business or regulatory forums focusing on different aspects of the LIBOR to Risk-Free Reference Rate (RFR) transition
Regulatory changes	Risk remained consistent	• We actively monitor regulatory initiatives across our footprint to identify any potential impact and change to our business model • We have established relevant project management programmes

Emerging Risks	Risk trend since 2018[1]	How these are mitigated/next steps
	with 2018 level	to review and improve end-to-end processes in terms of oversight and accountability, transparency, permission and controls, legal entry level limits and training
Regulatory reviews, investigations and legal proceedings	Risk remained consistent with 2018 level	• We have invested in enhancing systems and controls, and implementing remediation programmes (where relevant) • We continue to train and educate our people on relevant issues including conduct, conflicts of interest, information security and financial crime compliance in order to reduce our exposure to legal and regulatory proceedings
New technologies and digitisation, including business disruption risk, responsible use of artificial intelligence and obsolescence risk	Risk remained consistent with 2018 level	• We monitor emerging trends, opportunities and risks in the technology space which may have implications on the banking sector • We are engaged in building our capabilities to ensure we remain relevant and can capitalise rapidly on technology trends • We continue to make headway in harnessing new technologies, actively targeting the reduction of obsolescent/end of support technology and ensuring operational resilience
Increased data privacy and security risks from strategic and wider use of data	Risk remained consistent with 2018 level	• We have governance and control frameworks which we continue to enhance to meet the needs of emerging technologies • We have designed a programme to manage the risks posed by rapidly evolving cyber security threats • We maintain a vigilant watch on legal and regulatory developments in relation to data protection to identify any potential impact to the business

1 The risk trend refers to the overall risk score trend which is a combination of potential impact, likelihood and velocity of change

2 Physical risks refer to the risk of increased extreme weather events while transition risks refer to the risk of changes to market dynamics due to governments' response to climate change

Further details on our Emerging Risks can be found on pages 129 to 137

Summary

Risk is an area that provides both challenges and opportunities. The Risk and CFCC functions will remain key to the Group's success. Early in 2020, we have been faced with the outbreak of the novel coronavirus. Major elections are due later in the year and a number of other geopolitical risks remain. Our continued investment and focus on our risk management capabilities will help the Group to navigate these headwinds, with the intention of ensuring a sustainable, innovative, resilient and client-centred bank.

Stakeholders and responsibilities

As an international bank, stakeholder engagement is central to how we understand local, regional and global perspectives and trends that inform our approach to doing business.

This section forms our Section 172 disclosure, describing how the directors considered the matters set out in section 172(1)(a) to (f) of The Companies Act 2006. It also forms the directors' statement required under section 414CZA of the Act.

This section sets out how:

- we engage stakeholders to understand their interests
- we engage employees and respond to their interests
- we respond to stakeholder interests about community investment, the environment, human rights, conduct and financial crime compliance
- our Court considers stakeholders interests when making principal decisions

This section also forms our key non-financial disclosures in relation to sections 414CA and 414CB of the Companies Act. Our non-financial information statement can be found at the end of this section.

Engaging stakeholders

Constructive dialogue with stakeholders is central to delivering sustainable and responsible banking. Regular engagement builds trust with governments, regulators, investors and civil society, and enables us to understand and respond to the long-term challenges facing our markets. This is necessary if we are to deliver our purpose to drive commerce and prosperity in our markets.

During 2019, we increased our dialogue and engagement with stakeholders including civil society, regulators and investors on sustainability. We continued to track short- and long-term issues, assessing them based on business impact and level of stakeholder concern.

Stakeholder feedback is communicated internally to senior management through the relevant forums and governing committees to the PLC Board's Brand, Values and Conduct Committee (BVCC), which oversees our approach to our main government and regulatory relationships. Progress is communicated regularly to external stakeholders through channels such as sc.com and this report.

Clients

How we create value

We enable individuals to grow and protect their wealth. We help businesses to trade, transact, invest and expand. We also help a variety of financial institutions, including banks, public sector and development organisations, with their banking needs.

How we serve and engage

Clients are at the heart of everything we do as a bank. By building and fostering long-term relationships with our clients, we can serve them better, deepen our relationships, uphold our reputation and attract new customers to grow our business.

During 2019, we continued to capture feedback via annual surveys, real-time client experience surveys and third-party studies to benchmark our performance against competitors. Additionally, we launched efforts to work more directly with clients earlier in the development process to co-design new solutions and improve the value proposition of our existing offerings. Through this, clients have told us that we need to simplify our processes and make more effective use of digital technology. In recent years, we have also seen increasing demand from our clients for sustainable finance products.

The increased emphasis on direct interaction allowed us to respond more quickly and completely to our clients' feedback. For example, Private Banking designed more user-friendly communication for customers on corporate actions and enabled payment notifications via email and mobile; and Corporate & Institutional Banking developed innovative new products to meet clients' growing interest in sustainable finance.

Their interests

- Differentiated products, preferred bank
- Digitally enabled and positive experience
- Sustainable Finance

Regulators and Governments

How we create value

We engage with relevant authorities to play our part in supporting the effective functioning of the financial system and the broader economy.

How we serve and engage

We actively engage with governments, regulators and policymakers at a global, regional and national level to share insights, and to support the development of best practice and the adoption of consistent approaches across our markets. In 2019, we engaged with policymakers at all levels to exchange information on topics such as prudential rules, Brexit, supporting trade and economic growth, sustainable banking, fintech, artificial intelligence, cyber security and fighting financial crime, benchmark reform and conduct.

We are committed to complying with legislation, rules and other regulatory requirements applicable to our businesses and operations in the jurisdictions within which we operate. Our compliance with legal and regulatory frameworks across our markets ensures that the Group meets its obligations. In turn, this supports the resilience and effective functioning of the Group and the broader financial system and economy. In support of this, we have a unified Public and Regulatory Affairs team responsible for anticipating changes to relevant legislation and regulation, and managing relationships with regulators and governments. During 2019, we have improved our capacity to identify and analyse the forward horizon of potential and emerging regulatory developments that have strategic impacts on the Group.

We meet all relevant transparency requirements and engage with governments and regulators through ongoing dialogue, submission of responses to formal consultations and by participating in industry working groups.

In 2020, we expect to focus engagement activities on regulation and legislation associated with international trade, emerging technologies and innovations in banking, sustainable banking including climate risk and artificial intelligence including data analytics and privacy.

Their interests

- Robust capital base/strong liquidity position
- Standards for conduct
- Healthy economies, competitive markets and positive social development

Investors

How we create value

We aim to deliver robust returns and long-term sustainable value for our investors.

How we serve and engage

We rely on capital from debt and equity investors to execute our business model. Whether they have short- or long-term investment horizon, we provide all investors with information about all aspects of our financial and sustainability performance.

Our operating footprint and commitment to sustainable and responsible banking enables us to connect investors in capital markets to opportunities in emerging markets. We believe that an integrated approach to environmental, social and governance (ESG) issues and a strong risk and compliance culture provide a competitive advantage. During 2019, we delivered value by executing against our strategic priorities.

Transparent engagement with our investors and the wider market helps us to understand what investors need so that we can tailor our public information accordingly. We communicate with investors through quarterly management statements, half- and full-year results, webinars and media releases. Our Investor Relations team engage directly through calls, conferences and roadshows. For example, during 2019 we hosted investor seminars on our franchise in the Africa & Middle East region and our Financial Markets business to provide greater insights into their opportunities, advantages and underlying drivers of performance.

We continued to respond to the growing interest from mainstream investors on ESG matters including the SDGs, sustainable finance, climate change, coal and human rights. We also engage with sustainability analysts and participate in sustainability indices that provide independent benchmarking of our performance. We are included in FTSE4Good and submit to the Carbon Disclosure Project (CDP).

In 2020, we will continue to engage with investors on how we plan to sustainably improve our returns to create value over the long term.

Their interests

- Safe, strong and sustainable financial performance
- Opportunities for Sustainable Finance
- Environment, social and governance matters

Suppliers

How we create value

We work with local and global suppliers to ensure they can provide the right goods and services for our business, efficiently and sustainably.

How we serve and engage

Engagement with suppliers is guided by our Supplier Charter, which sets out what we expect of suppliers on issues such as ethics, anti-bribery and anti-corruption, human rights and environmental performance. Our suppliers must recommit to the charter annually, and regular engagement to monitor performance is built into our procurement practices and standards.

We engage globally and locally to create value through the supply chain for both our business and our vendors. Small and medium-sized business owners continue to have the opportunity to participate in our sourcing activities and local supply teams help them meet the standards set out in our Supplier Charter. We continue to work with small and medium-sized FinTech's with SC Ventures to drive greater innovation in our supply chain.

We are committed to improving the supplier experience. In 2019, they told us they wanted simpler onboarding and payment processes. To address this, we are streamlining our onboarding processes, improving our use of technology and providing additional training on these process for employees and suppliers.

During 2019, we made good progress embedding sustainability into our procurement practices. We strengthened governance of Modern Slavery and Human Trafficking (MSHT) risk and assessed the MSHT standards and practices of our strategic suppliers' own supply chains.

We have started to enrich our data on supplier diversity and conducted a benchmarking study in preparation for developing a more robust supplier diversity programme in 2020.

Their interests

- Open, transparent and consistent tendering process
- Willingness to adopt supplier driven innovations
- Accurate and on-time payments

Society

How we create value

We strive to operate as a sustainable and responsible business, collaborating with local partners to promote social and economic development.

How we serve and engage

We engage with a wide range of civil society and international and local non-governmental organisations (NGOs) from those focused on environmental and public policy issues to partners delivering our community programmes.

Where NGOs approach us about a specific client or transaction, we aim for constructive dialogue that helps ensure we understand alternative positions that can shape our thinking and that our approach to doing business is understood. This engagement takes the form of individual face to face meetings and calls, as well as written responses on specific topics. In 2019, we continued to engage with organisations on climate change, human rights and tax.

We engage with international and local NGOs to advance our community development agenda to tackle avoidable blindness and promote economic inclusion. We have long-standing relationships with global implementing partners, such as Women Win and the International Agency for the Prevention of Blindness, who deliver our community programmes. These relationships provide valuable insight and act as trusted sounding boards for understanding evolving issues in our communities.

Local NGO partners delivering our community programmes collect regular feedback from participants to shape future activities. For example, girls on our Goal empowerment programme are regularly surveyed to track their individual and collective progress against the programme's objectives. In 2019, we commissioned an independent study to learn more about Goal's impact.

We also encourage employees to use their three days of volunteering leave to build relationships within their own communities.

In 2020, we will host the inaugural Futuremakers Forum, an engagement opportunity that will bring together a broad range of experts, community members and corporates to discuss and promote economic inclusion for young people.

Their interests

- Positive social and economic contribution
- Strong community outreach and sustainability programme
- Climate change and environmental issues

Employees

How we create value

We believe great employee experience drives great client experience. We want all our people to pursue their ambitions, deliver with purpose and have a rewarding career enabled by great people leaders.

How we serve and engage

By engaging employees and fostering a positive experience for them at Standard Chartered, we can better serve our clients and deliver our purpose to drive commerce and prosperity through our unique diversity. Building an inclusive culture enables us to harness our unique diversity to unlock innovation, make better decisions, deliver our business strategy, live our valued behaviours, and embody "Here for good."

Since 2016, the Group has taken steps toward an inclusive, innovative and performance-based culture that emphasises sustainability and conduct. When lived consistently, our valued behaviours (Never settle, Do the right thing and Better together) should deliver our desired culture.

We proactively assess and manage people-related risks, for example, organisation, capability, and culture as part of our group risk management framework.

Their interests

In 2018, we conducted research to understand our Employee Value Proposition (EVP) or the value that employees feel they gain from being part of our organisation. The research also illustrated what potential employees consider important in an employer. Our employees told us they want to: have interesting and impactful jobs; innovate within a unique set of markets and clients; cultivate a brand that sustainably drives commerce and offers enriching careers and development; and be supported by great people leaders. They want these elements to be anchored in competitive reward and a positive work-life balance. Our EVP has been a key input to our refreshed People Strategy, which was approved by the Court in 2019. The strategy will be a key enabler in delivering our business strategy while also creating a differentiated employee experience.

Listening to employees

Listening to employees helps us identify and work to close gaps, between their expectations and their experiences. My Voice, our annual engagement survey has played a role at each stage in our culture transformation. In 2019, 55,000 (90 per cent) of our employees and, for the first time, 2,900 non-employed workers (NEWs) completed the survey. Our employee net promoter score (eNPS) has continued to increase steadily since 2016 suggesting the overall employee experience is improving.

We need our people leaders drive culture change. During the year, more than 87 per cent of first-time leaders attended our new People Leader development programme LeadX to develop better leadership capabilities. The programme design was informed by what our employees told us they wanted from their leaders in My Voice.

While survey results are improving, employee satisfaction with growth opportunities is the lowest scoring item. As part of our refreshed People Strategy, we are implementing several initiatives to improve this, including piloting the introduction of a virtual talent marketplace to grow individuals' skillsets and increasing opportunities for learning experiences for all employees.

Several channels exist for the Court to understand the views of the workforce, including information reported from senior management on culture, My Voice, Speaking Up, disciplinary and grievance data and themes. The Court engages directly with the workforce on overseas visits, which in 2019 included Germany, China and Singapore, and other events, for example, the PLC Chairman's Recognition Awards.

Developing future skills in a diverse workforce

The world of work continues to be fast changing. We want to equip employees with the skills they need to prosper in this increasingly ambiguous environment. This starts with an aspiration for every employee to have a personalised growth plan, created in partnership with their people leader and based on their performance, career objectives and future roles. Our goal in 2020 is for 80 per cent of people to have a growth plan in place.

We are investing in tools to support this aspiration. Our new global people management platform makes it easier for employees to define their objectives, receive feedback from peers and plan their career growth.

We want to democratise access to development opportunities for our diverse talent. We are building a virtual talent marketplace platform, supported by AI, that enables employees to match their skills and aspirations with short term experiences. Further we are rolling out a personalised learning platform that provides tailored recommendations and access to internal and external learning resources. This should help employees manage their careers for the future.

Further, we have delivered a series of targeted leadership acceleration programmes to develop role readiness and build leadership capabilities. These efforts are having a positive impact on developing our pipeline of internal talent with 65 per cent of senior management appointments in 2019 going to an internal candidate.

We will only prosper as an organisation if our employees and teams prosper, too. We want to create a working environment that supports employee resilience and creativity, so they can thrive at work and in their personal lives. Providing working conditions that are broad and inclusive will help us to reap the benefits of our diverse and talented workforce. Our Fair Pay Charter is a public declaration of our commitment to deliver fair, transparent and competitive pay, continually improve our benefits, and support our employees' lifestyle, wellbeing and development. We continue to build on the resources (mental, physical, social and financial) to help our employees manage their individual wellbeing needs. We have wellbeing champions in place that cover 93 per cent of our employees and mental health first aiders available in UK, US and Singapore.

Creating an inclusive culture that leverages our diversity

Following the launch of our Diversity and Inclusion (D&I) strategy in 2018, we have continued to build the foundations and raise awareness of D&I. It is our strong belief that a culture of inclusivity is the key to harnessing our unique diversity to unlock innovation and create shareholder value. Our Inclusive Leadership Programme, completed by more than 80 per cent of people leaders, cultivates skills and behaviours to help mitigate unconscious bias and build a culture of inclusion. This has further been supported through the launch of our eLearning, 'When we're all included', for all employees.

We recognise five international D&I dates[1] to raise awareness, enable dialogue, highlight role models, disrupt traditional norms and break stereotypes. Our global campaigns, supported by local D&I councils and employee resource groups, delivered 267 activities ranging from panel events with clients and community representatives to hosting classes on sign language, cultural intelligence and flexible working. In addition, we shared toolkits to increase understanding of cultural dialogue, being an LGBT+ advocate, mental wellbeing, disability and parental leave best practices.

1 International Day Against Homophobia, Transphobia and Biphobia, International Day of Persons with Disabilities, International Men's Day, International Women's Day, and World Day for Cultural Diversity for Dialogue and Development

We have signed up to disability advocacy initiatives such as The Valuable 500 and the International Labour Organisation – Global Business Disability Network Charter to further reinforce our commitment to be a disability- confident organisation. Our aim is to remove barriers and increase accessibility. We've had an inclusive design standard in place since 2016 which has been applied to all new premises and retrofits. Further, we are encouraging markets to assess their disability confidence with a new assessment tool to close gaps and identify best practice.

We achieved our 2019 aspiration to pay all employed workers a living wage, and in locations where it is possible, employees are invited to participate in our Sharesave plan to share in the success of the Group. During 2020, we will continue work on a feasibility assessment to extend our living wage commitment to our contractors and third parties.

Our inclusion efforts and actions have led to improvements in the outcomes we measure including female representation in senior roles, which has increased from 25.4 per cent in 2018 to 26.1 per cent at the end of 2019.

Externally, we have engaged our clients to drive the pace of change and inclusion across the industry. We have sponsored conferences and summits, such as the Bloomberg Equality Summit and Grace Hopper Celebration India. We have also delivered the 'Men Advocating Real Change' programme in India, Singapore and the UK where clients and senior leaders have come together to sharpen their awareness of inequality, develop inclusive leadership strategies and hone skills to make a lasting impact. We are also helping our clients with their inclusion efforts. For example, we have launched an Impact Philosophy Framework for our private bank clients. This provides a methodology to match our client's financial goals with solutions that help drive the advancement of the Sustainable Development Goals.

We continue to be recognised for our achievements and efforts in D&I across the footprint. We are proud of the progress that we have made to date but recognise there is more work to do.

Example of principal decisions taken by the Court: Climate risk and sustainability strategy

The Court reviewed the Group's activities in relation to climate change. In its discussions, the Court recognised the need to manage physical and transitional climate risks that are impacting clients, shareholders, employees and local communities. As a result, the Court endorsed the management team's decision to develop and implement a climate risk framework and to incorporate climate into relevant principal risk types as a material cross-cutting risk. The Court also acknowledged the significant opportunity to support clients with new financing solutions that contribute to decarbonising economies and improving physical resilience to a changing climate. In addition, it considered the Group's progress in advancing its sustainability strategy against a rapidly changing landscape where expectations from key stakeholders, including governments, regulators, investors and employees, were increasing.

Sustainable and responsible business

Our purpose is to drive commerce and prosperity through our unique diversity. We embed sustainability across our business, operations and communities through our sustainability framework. By focusing on three pillars – Sustainable Finance, Responsible Company and Inclusive Communities – we believe we can deliver sustainable prosperity, in line with our valued behaviours and our brand promise to be Here for good.

This approach is framed around a Sustainability Philosophy that informs our decision-making, Sustainability Aspirations that provide tangible targets for sustainable business outcomes aligned to the United Nations (UN) Sustainable Development Goals, and Position Statements that set out our environmental and social client standards.

In 2018, we laid the foundations for an ambitious transformation of our sustainability performance and in 2019, we built on this with positive results. We created sustainable finance products and a governance framework that support our commitment to be the leading private sector catalyst of finance for the SDGs in emerging markets. We accelerated our response to climate change, publishing our emissions white paper to encourage collaboration across the finance sector, updating our position on coal and integrating climate into our Group's risk framework.

The Court is responsible for ensuring that high standards of responsible business are maintained and receives information to identify and assess significant risks and opportunities related to environmental and social matters, including climate change.

At a management level, the CEO, Corporate & Institutional Banking is responsible for sustainable finance, which incorporates environmental and social risk management. The Group Head, Corporate Affairs, Brand & Marketing, Conduct, Financial Crime and Compliance leads a cross-business Sustainability Forum to develop and deliver the Group's broader sustainability strategy and champions sustainability across the Group.

Sustainable Finance

We use our core business of banking to create positive impact and manage the environmental and social risks associated with our financing activities.

Our unique footprint across emerging markets enables us to focus sustainable finance where it is needed most. In 2019, we took major steps forward to deliver finance to drive positive social and economic impact and manage environmental and social risks associated with our financing activities.

Managing environmental and social risk

Our main impact on the environment and society is through the business activities we finance. Our seven Position Statements outline the cross-sector standards we expect of ourselves and our clients, as well as sector-specific guidance for those clients operating in sectors with a high potential environmental or social impact. These draw on International Finance Corporation (IFC) Performance Standards, the Equator Principles and global best practice. Our Prohibited Activities list sets out the activities we do not finance and can be found on sc.com.

We identify and assess environmental and social risks related to our Corporate & Institutional, Commercial and Business Banking clients, and embed our environmental and social risk framework directly into our credit approval process. All relationship managers and credit officers are offered training in assessing environmental and social risk against our criteria, as well as access to online resources. During 2019, we continued to embed the Position Statements through e-learning and classroom-based training for frontline and risk colleagues.

Our refreshed Position Statements came into effect in March 2019. Further to our 2018 decision to end financing for new coal-fired power plants, we announced that we will only support clients who actively transition their business to generate less than 10 per cent of earnings from thermal coal by 2030.

We work with clients, regulators and peers across the finance sector to continuously improve environmental and social standards. We prefer to proactively engage with clients to mitigate identified risks and impacts and support them to improve their environmental and social performance over time. Where this is not possible, transactions have been, and will continue to be, turned down. In 2019, we were active in the review of the refreshed Equator Principles 4 (EP4) and in November, assumed the role of chair of the EP Steering Committee. Our focus will be overseeing implementation of EP4 during 2020.

Responding to climate change

Climate change is a shared global challenge. We are committed to supporting clients through the low-carbon transition in line with the Paris Agreement and supporting adaptation and resilience to tackle physical risks. Since 2018, we have been on a journey to measure, manage and ultimately reduce the carbon emissions relating to our financing of clients.

During 2019, we published a white paper on our emissions framework to accelerate discussion across the finance sector. We piloted two methodologies to measure emissions, focusing on the 2 Degrees Investing Initiative's tool to understand emissions at a sector level. Using this tool, we disclosed our current, financed emission intensities for the automotive and cement manufacturing portfolio in our stand-alone 2019 Climate Change/Taskforce Climate-related Financial Disclosures (TCFD) report to support dialogue with a range of stakeholders. Further insights from this work is informing our corporate planning process and the development of our new climate risk framework.

Recognising the significance of climate-related concerns to our clients and communities, we are integrating climate risk into our Group-wide approach to risk management. We have identified it as a material cross-cutting risk that will be considered alongside designated principal risk types.

In addition to our own response, we believe collaborative action is needed. We are continuing to work through existing relationships including UN Environment Programme for Financial Institutions and the Katowice Commitment. In 2019, we became a founding member of the UN Principles for Responsible Banking, a signatory to the UN Collective Commitment to Climate Action and joined the Coalition on Climate Resilient Investment.

We continue to engage clients on assessing climate risk, identifying low-carbon opportunities through our Sustainable Finance team and mobilising finance to support the low-carbon transition.

Responsible company

We strive to manage our business sustainably and responsibly, drawing on our purpose, brand promise, valued behaviours and Code of Conduct to enable us to make the right decision.

Promoting good conduct

Good conduct is a priority for our stakeholders and for the Group. We continue to make good progress on our conduct, embedding practices that help us identify, aggregate and manage conduct risk as part of our Group-wide approach to risk management.

In 2019, we strengthened conduct risk management, focusing on fair outcomes for clients by formalising conduct considerations in strategy design and product governance. Our Code of Conduct remains the central tool through which we set our conduct expectations. The Code supports a culture in which employees are encouraged to demonstrate good judgment, integrity, and a strong sense of personal accountability when they make decisions; leaders are empowered to recruit and recognise colleagues based on good conduct; and performance objectives and reward mechanisms are linked to our valued behaviours. Conduct training is obligatory and colleagues are asked annually to recommit to the Code. In 2019, 99.4 per cent recommitted to the Code.

In 2020, we will challenge and support our employees to identify and mitigate conduct risk as we continue to promote good conduct across the Group.

Speaking Up

Speaking Up is our confidential and anonymous whistleblowing programme. It includes independent and secure channels for anyone – colleagues, contractors, suppliers and member of the public – to raise concerns. As part of our commitment to Speaking Up, we invested in a new system to enable better management of cases. In 2020, we will continue to raise awareness and use by launching a digital learning toolkit. Download our Group Code of Conduct at sc.com/codeofconduct or visit sc.com/speakingup to find more about how our Speaking Up programme works

Fighting financial crime

We believe partnering to lead in the fight against financial crime is the best way to protect our business, clients and wider communities from its damaging effects. By cutting off funding sources, we help make the financial system a hostile environment for criminals and support positive economic development in our markets.

We have comprehensive safeguards in place to address threats including money laundering, terrorist financing, sanctions compliance breaches, bribery and other forms of corruption. A dedicated Financial Crime Compliance (FCC) team leads our financial crime risk management activities, which include adhering to anti-money laundering and sanctions policies and applying core controls such as client due-diligence screening and monitoring.

Anti-bribery and corruption (ABC) policies prevent colleagues, or third parties working on our behalf, from participating in active or passive bribery or corruption, or from making facilitation payments. In 2019, 99.9 per cent of employees completed ABC training, 99.9 per cent completed anti-money laundering training and 99.9 per cent completed sanctions training.

By working in partnership with our client banks, we share best practices on controls for managing financial crime risk and in doing so build a strong network to keep criminal activity out of the financial system.

In 2020, we will continue to adapt our controls to emerging threats by ensuring we have highly trained and experienced staff working with new technologies to detect any abuse of the financial system. We will also continue to partner with, and educate, peer banks and clients in the detection and control of financial crime risks.

Respecting human rights

We are committed to respecting human rights and seek to ensure they are not adversely impacted in our role as an employer, financial services provider and procurer of goods and services. We recognise that our footprint and supply chain give us the opportunity to raise awareness of human rights and modern slavery in a wide range of markets and industries.

Our Position Statement on human rights outlines our approach, reflecting the International Bill of Human Rights, the UN Guiding Principles and the UK Modern Slavery Act. This is then embedded across a range of internal policies and risk management frameworks, including our Group Code of Conduct and Supplier Charter.

In 2019, we continued to review and enhance our controls relating to modern slavery, including via collaborative dialogue with one of our investors. Our 2019 Modern Slavery Statement details the actions we are taking as a result. These include changes to risk assessment processes for suppliers, and a review of our strategic suppliers to assess their standards and practices in managing modern slavery risks in their onward supply chains.

Read our 2019 Modern Slavery Statement at sc.com/modernslavery

Managing our environmental footprint

We are committed to reducing the direct environmental impact of our branches and offices. To do this, we measure and manage their energy and water efficiency, greenhouse gas emissions.

We have measured our greenhouse gas (GHG) emissions since 2008, and last year adopted science-based targets (SBT) to significantly reduce our carbon footprint. In 2019, our Scope 1 and 2 GHG emissions were 96 million tonnes CO2 equivalent. During the year, we set more ambitious targets to achieve net zero emissions from our own operations and only use renewable energy sources by 2030. We are reviewing fuels and increasing renewable energy sources to deliver the efficiency improvements needed across our properties to meet these challenging targets.

We take a responsible approach to managing water. In 2019, we continued to reduce use by installing ultra-low flow water devices, targeting markets with high water usage and improving our behaviour towards water management.

We are committed to reducing waste in all its forms and in 2019, we strengthened our commitment with ambitious new targets to reduce waste per employee by to 40 kilograms and recycle 90 per cent of our waste by 2025. We choose to send non-recyclable waste to energy generation or compost so that we limit our impact on landfill where possible.

We continue to identify ways to improve our environmental performance. In 2019, we extended our third-party assurance to include water and waste performance. In 2020, we will focus on reducing waste further and taking the necessary steps to meet our SBTs for greenhouse gas emissions.

Read the principles and methodology for measuring our greenhouse gas emissions at sc.com/environmentalcriteria

Inclusive communities

Our aim is to create inclusive, prosperous communities where we operate.

In 2019, we invested $41.2 million in communities and employees contributed more than 33,000 volunteering days.

We launched Futuremakers by Standard Chartered, our new global initiative to tackle inequality and promote economic inclusion in 2019. Our aim is to raise $50 million between 2019 and 2023 to empower the next generation to learn, earn and grow.

As part of Futuremakers, we expanded Goal, our existing girls' empowerment programme, and launched new global programmes. During the year, we have delivered employability projects to support young people become job-ready and supported entrepreneurship projects for young people and small businesses.

We are continuing to support the delivery of eye health projects as part of Seeing is Believing (SiB) our global initiative to tackle avoidable blindness. We are using our knowledge and experience from SiB to mobilise support for the Vision Catalyst Fund (VCF), which aims to raise US$1 billion to fund sustainable eye care projects, and by supporting people with visual impairments through Futuremakers.

In 2020, we will scale-up and roll-out Futuremakers programmes, continue to support the creation of the VCF and develop and implement a robust measurement and evaluation framework. We will host our first Futuremakers Forum bringing together programme participants, clients and development experts.

The Standard Chartered Foundation was established in 2019 to advance charitable purposes. It will be the Group's lead partner in delivering its philanthropic activities, including Futuremakers by Standard Chartered.

Non-financial information statement

This table sets out where shareholders and stakeholders can find information about key non-financial matters in this report, in compliance with the non-financial reporting requirements contained in sections 414CA and 414 CB of the Companies Act 2006. Further disclosures are available on sc.com and in our 2019 Sustainability Summary.

Reporting requirement	Where to read more in this report about policies, impact (including risks, policy embedding, due diligence and outcomes)
Business model	Pages 11 to 12
Non-financial KPIs	Pages 3
Risk Review (principal risks)	Pages 109 to 128
Environment – Sustainable & Responsible Business – Directors Report	 Page 35 Pages 40 to 44
Employees	Pages 33 to 35
Human rights	Page 37
Social matters	Page 35
Anti-corruption and anti-bribery	Page 36

Authority

The strategic report up to page 39 has been issued by order of the Court.

Bill Winters

Director

27 February 2020

Company Reference Number: ZC18

Directors' Report

The directors present their report and the audited financial statements of Standard Chartered Bank and its subsidiaries (the 'Group') and Standard Chartered Bank (the 'Company') for the year ended 31 December 2019.

Activities

The activities of the Group are banking and providing other financial services. The Group comprises a network of branches and outlets in 57 markets. The Financial Review on pages 19 to 25 contains a review of the business during 2019.

Key stakeholders

The long-term success of the Group is dependent on its relationships with its key stakeholders. On pages 31 to 38 we outline the ways in which we have engaged with key stakeholders, the material issues that they have raised with us, and how these issues have been taken into account in the Court's decision-making processes.

Results and dividends

The results for the year are given in the income statement on page 150.

$393 million interim dividend was paid during the year which was split between two dividends of $141 million and $252 million both paid out in the first half of 2019 to ordinary shareholders (2018: $384 million).

$11,142 million dividends (including dividends in specie) were paid during the year as a result of the group reorganisation, details of which are given in Note 41 (Discontinued operations)

Share capital

Details of the Company's share capital are given in Note 27 to the accounts.

Loan capital

Details of the loan capital are given in Note 26 to the accounts.

Property, plant and equipment

Details of the property, plant and equipment of the Company are given in Note 17 to the accounts.

Financial instruments

Details of financial instruments are given in Note 12 to the accounts.

Details of exposure to credit, traded, liquidity and funding risk can be found in the Risk Profile section of the accounts.

Post balance sheet events

Details of post balance sheet events are given in Note 36 to the accounts.

Research and development

During the year, the Group invested in research and development, primarily relating to the planning, analysis, design, development, testing, integration, deployment and initial support of technology systems.

Future developments in the business of the Group

An indication of likely future developments in the business of the Group is provided in the Strategic report.

Directors and their interests

The directors of the Company during the year were as follows:

Mrs T J Clarke

Mr A N Halford

Mr M Smith

Mr W T Winters

Dr L Cheung (Appointed 1 April 2019)

Mr D P Conner (Appointed 1 April 2019)

Dr B E Grote (Appointed 1 April 2019)

Mrs C M Hodgson, CBE (Appointed 1 April 2019)

Ms G Huey Evans, OBE (Appointed 1 April 2019)

Mr N Kheraj (Appointed 1 April 2019)

Dr N Okonjo-Iweala (Appointed 1 April 2019)

Mr D Tang (Appointed 12 June 2019)

Mr C Tong (Appointed 1 April 2019)

Mr J Viñals (Appointed 1 April 2019)

Ms J M Whitbread (Appointed 1 April 2019)

None of the directors have a beneficial or non-beneficial interest in the shares of the Company or in any of its subsidiary undertakings.

Details of directors' pay and benefits are disclosed in Note 38 to the accounts.

All of the directors as at 31 December 2019, except for Mrs Clarke and Mr Smith, are directors of the Company's ultimate holding company, Standard Chartered PLC.

Going concern

Having made appropriate enquiries, the Court is satisfied that the Company and the Group as a whole have adequate resources to continue operational businesses for a period of at least 12 months from the date of this report and therefore continue to adopt the going concern basis in preparing the financial statements.

Political donations

The Group has a policy in place which prohibits donations being made that would: (i) improperly influence legislation or regulation, (ii) promote political views or ideologies, (iii) fund political causes. In alignment to this, no political donations were made in the year ended 31 December 2019.

Qualifying Third Party Indemnities

The Company has granted indemnities to all of its directors on terms consistent with the applicable statutory provisions. Qualifying third-party indemnity provisions for the purposes of section 234 of the Companies Act 2006 were accordingly in force during the course of the financial year ended 31 December 2019 and remain in force at the date of this report.

Qualifying Pension Scheme Indemnities

Qualifying pension scheme indemnity provisions (as defined by section 235 of the Companies Act 2006) were in force during the course of the financial year ended 31 December 2019 for the benefit of the directors of the UK's pension fund corporate trustee (Standard Chartered Trustees (UK) Limited) and remain in force at the date of this report.

Areas of operation

The Company operates through branches and subsidiaries in 57 markets across Asia, the Middle East, Africa, Europe and the Americas.

Related party transactions

Details of transactions with directors and officers and other related parties are set out in Note 36 to the financial statements.

Corporate Governance Statement

Following the creation of the Hong Kong regional hub in 2019, the PLC Group has operated under a two-hub governance model. However, as the Group continues to cover the vast majority of PLC Group's total footprint, the governance arrangements of the Company and PLC similarly reflect this overlap. Prior to the reorganisation, careful consideration was given by the Company's Board of Directors (Court) and the Board of PLC to which interim corporate governance arrangements would be most appropriate to apply. This included the creation of a mirror board structure between PLC and the Company.

By virtue of the continued alignment with PLC, the Company follows a modified version of UK Corporate Governance Code 2018 (the "Code") based on its position as a wholly-owned subsidiary of a listed PLC and its governance structure as a company established by Royal Charter, and complies with expectations set for premium listed companies with respect to board leadership, responsibilities, composition (including succession and evaluation) to ensure that the Group is well managed, with appropriate oversight and control. Principles under the Code relating to certain matters, such as remuneration, values, and external audit, are set at PLC Group level and considered or approved, if appropriate, by the Court. The reason for these departures from the Code is because it is considered more appropriate for the purposes of Group wide consistency that these principles are set at PLC Board level and then disseminated through the Group.

The Court is supported by 5 executive committees: Audit Committee; Board Risk Committee; Nomination Committee; Standing Committee; and US Risk Committee. Each of the committees and the Court have implemented clear lines of responsibility and policies to support the Court in its effective decision making. The Court, and its Audit and Risk Committees have the same membership as the Board of PLC and its Audit and Risk Committees, with the appropriate balance, skills, background and experience to make a valued contribution. Two additional executive directors to the Court have been retained for the effective management of conflicts of interest. For further information on how the Audit Committee and Risk Committee operate (including in respect of their compliance with the Code), please see pages 86 to 91 and 92 to 97 of PLC's 2019 Annual Report.

The Court, together with the PLC Group, are committed to high standards of engagement with employees, suppliers and other stakeholders. For a description of how the directors engaged with stakeholders, including as to how such engagement has been considered in the Court's decision making, please refer to page 31.

Employee involvement

We work hard to ensure that our colleagues are kept informed about matters affecting or of interest to them, but more importantly to provide opportunities for feedback and dialogue. Through our annual My Voice survey, our employees told us in 2018 that the Group can feel too complicated. During 2019, all 17 Group Human Resources policies were reviewed, their language simplified, and all content aligned to the Group's valued behaviours. The review also challenged the number of policies and we have explored other methods of communicating the key information employees need to do their jobs effectively (e.g. people leader briefing calls).

We continue to listen to ensure internal communications remain impactful, meaningful and support the Group's strategy and transformation. The primary channel for communicating with our colleagues continues to be the Bridge – our business collaboration platform. The Bridge provides global, local, business and function communications and allows our people to exchange ideas, feedback, comment and communicate all through one space, wherever they are located.

The Bridge is supported by Group, local and business newsletters, targeted audio calls, videos, success story bulletins, town halls and engagement events. Business or time-critical information is sent directly to our people's inboxes through a measurable email platform.

Our senior leaders and people leaders continue to have a critical role to play in engaging our people, ensuring that they are kept up to date on key business information, our performance and strategy, their role in executing the strategy and ensuring that they consult and listen to their teams' views, feedback and concerns. In 2019 we included questions about our strategy into the annual survey My Voice; pleasingly the majority of employees responded to say their people leader and team had discussed the strategic priorities and how their team will bring them to life. More information on the engagement survey and its results can be found within the employees' section of the Strategic Report.

Across the organisation, team meetings with People Leaders, one-to-one discussions, and management meetings enable our people to discuss and clarify matters of concern to them as employees. Performance conversations provide the opportunity to discuss how individuals, the team and the business area have contributed to our overall performance and, in full year conversations, how any compensation awards relate to this.

During 2019 we improved the mechanisms for Court engagement with employees. In addition to management reporting on employee matters and townhalls when the Court travels overseas, we now have interactive calls and online discussions where the Court can hear from employees. Initial sessions demonstrate employee interest in engaging with the Court and output will be used to inform future engagements with employees.

Employees, past, present and future can follow our progress through social networks including the Group's LinkedIn network and Facebook page.

This mix of channels ensures that all our colleagues receive relevant information promptly regardless of how they prefer to be communicated with and regardless of where they sit in the organisation.

We want to be able to support our employees so they can thrive at work and in their personal lives. We have a flexible working practices policy allowing employees a range of flexible working options. We also provide a minimum of 20 calendar weeks fully paid maternity leave, a minimum of two calendar weeks of leave for spouses or partners, and two calendar weeks for adoption leave. Combined, this is above the International Labour Organisation minimum standards.

We seek to build productive and enduring partnerships with various employee representative bodies (including unions and work councils). In our recognition and interactions, we are heavily influenced by 1948 United Nations Universal Declaration of Human Rights (UDHR), and several International Labour Organisation (ILO) conventions including the Right to Organise and Collective Bargaining Convention, 1949 (No. 98) and the Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87). Additionally, we abide by all local country labour laws and acts that protect employees' rights to organise.

The Group Grievance Standard provides a formal framework to deal with concerns that employees have in relation to their employment or another colleague, which affects them directly, and cannot be resolved through informal mechanisms, e.g. counselling, coaching or mediation. This can include bullying, harassment or discrimination situations, and concerns around conditions of employment (e.g. health and safety, work relations, new working practices or working environment). There is a distinct Speaking Up policy which covers instances where a colleague suspects actual, planned or potential wrongdoing on the part of another colleague, or the Bank.

The Group's approach to misconduct issues (including dismissals) is guided by the Fair Accountability principles which endorse thoughtful judgement, proportionality, procedural appropriateness and fairness of outcomes. Dismissals due to misconduct issues and/or performance (where required by law to follow a disciplinary process) are governed by the Group Disciplinary Standard. Where local law or regulation requires a different process with regards to dismissals and other disciplinary actions, country procedures vary accordingly to account for local law and regulation.

Diversity and Inclusion (includes disclosure on employment of disabled persons)

Our Group Diversity and Inclusion Standard ("the Standard") has been developed to ensure a respectful workplace, with fair and equal treatment, diversity and inclusion, and the provision of opportunities for employees to participate fully and reach their full potential in an appropriate working environment. All individuals are entitled to be treated with dignity and respect, and to be free from harassment, bullying, and discrimination. This helps support effective and productive working conditions, decreased staff attrition, high morale and engagement, maintains employee wellbeing, and reduced risk.

The Group is committed to diversity and inclusion and policies, standards and practices that provide equality of opportunity for all, protect the dignity of employees and promote respect at work. All employees and contractors are required to take personal and individual responsibility to comply with the Standard, behave in a non-discriminatory way and not to participate in acts of inappropriate behaviour or conduct, harassment or bullying.

Standard Chartered Bank
Directors' report

The Group is committed to provide equal opportunities and fair treatment in employment. We do not accept unlawful discrimination in our recruitment or employment practices on any grounds including but not limited to; sex, gender, nationality, ethnicity, race, colour, native or indigenous origin, disability, age, marital or civil partner status, pregnancy and maternity, sexual orientation, gender identity, expression or reassignment, HIV or AIDS status, parental status, employment status, military and veterans status, flexibility of working arrangements, religion or belief.

We strive for recruitment, employment, redundancy and redeployment, training, development, succession planning and promotion practices that are free of barriers, both systemic and deliberate; and that do not directly or indirectly discriminate.

Recruitment, employment, training, development and promotion decisions are based on the existing skills, knowledge and behaviour required to perform the role to the Group's standards. Implied in all employment terms is the commitment to equal pay for equal work. We will also make reasonable workplace adjustments (including during hiring), including for disabilities and religious practices. If employees become disabled, efforts are made to ensure their employment continues, with appropriate training and workplace adjustments where necessary.

As part of our engagement with the 'Valuable 500' we are committed to have each country in our network complete an internal disability assessment and incorporate areas of improvement into their local diversity and inclusion plans. This disability benchmark will help every market measure and demonstrate progress towards becoming disability confident by reviewing inclusive processes and practices, infrastructure accessibility, client accessibility and impact in communities.

Health and safety

Our Health and Safety (H&S) programme covers both mental and physical wellbeing. The Group complies with both external regulatory requirements and internal policy and standards for H&S in all markets. It is Group policy to ensure that the more stringent of the two requirements is always met, ensuring our H&S practices meet or exceed the regulatory minimum. Compliance rates are reported quarterly to each country's management team. H&S performance and risks are reported annually to the Group Risk Committee and the Board Risk Committee. Based on our risk profile, our H&S standards define our requirements for H&S governance and assurance, workstation ergonomics, fire safety, first aid, indoor air quality and the work environment, vehicle and driving safety, incident reporting and investigation, and accessible design.

Supply chain management

For information about how the Group engages with suppliers on environmental and social matters, please see our Supplier Charter. As set out under the UK Modern Slavery Act 2015, the Group is required to publish a Modern Slavery Statement annually. The Group's 2019 Modern Slavery Statement will be issued at the same time as the Annual Report and Accounts. This document will give further detail on how the Group has managed social risks in its supply chain during 2019.

Our Supplier Charter can be viewed at sc.com/suppliercharter

Product responsibility

We aim to treat our clients fairly at all times. We design and offer products based on an understanding of our client needs, protect client privacy and manage potential conflicts of interest. We seek and use client feedback to improve our products and services. The Group has in place policies and procedures to ensure products are sold to suitable target markets, comply with relevant laws and regulations and complaints are identified and resolved.

Environmental impact of our operations

We aim to minimise the environmental impact of our operations as part of our commitment to be a responsible company. We measure energy, water, paper and non-hazardous waste that is the basis of our Greenhouse Gas (GHG) emissions management, and have targets to reduce energy, water and paper use. In 2019, we also set new targets to reduce waste.

Auditor

The Audit Committee reviews the appointment of the Group statutory auditor, its effectiveness and its relationship with the Group, which includes monitoring our use of the auditors for non-audit services and the balance of audit and non-audit fees paid.

Each director believes that there is no relevant information of which our Group statutory auditor is unaware. Each has taken all reasonable steps necessary as a director to be aware of any relevant audit information and to establish that KPMG is made aware of any pertinent information.

In view of the external audit tender conducted in 2017, where it was agreed that EY be appointed as the Group's statutory auditor for the financial year ending 31 December 2020, KPMG will resign as the Group's statutory auditor from the conclusion of the 2019 audit and the Court will resolve to appoint EY to fill the casual vacancy. A resolution to appoint EY as auditor will be proposed at the 2020 PLC Annual General Meeting.

By order of the Court

Bill Winters
Director
27 February 2020
Company Reference Number: ZC18

Statement of directors' responsibilities

The directors are responsible for preparing the Directors' Report and the Group and Company Financial Statements in accordance with applicable law and regulations.

Company law requires the directors to prepare Group and Company financial statements for each financial year. Under that law they are required to prepare the Group financial statements in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs as adopted by the EU) and applicable law and have elected to prepare the Company financial statements on the same basis.

Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of their profit or loss for that period. In preparing each of the Group and Company financial statements, the directors are required to:

→ Select suitable accounting policies and then apply them consistently;

→ Make judgements and estimates that are reasonable, relevant and reliable;

→ State whether they have been prepared in accordance with IFRSs as adopted by the EU;

→ Assess the Group and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and

→ Use the going concern basis of accounting unless they either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that its financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the directors are also responsible for preparing a Strategic Report and Directors' Report that complies with that law and those regulations.

Responsibility statement of the directors in respect of the Directors' Report and Financial Statements

We confirm that to the best of our knowledge:

→ The financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole; and

→ The Strategic report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

We consider the Directors' Report and Financial Statements, taken as a whole, is fair, balanced and understandable and provides the information necessary to assess the Group's position and performance, business model and strategy.

By order of the Court

Andy Halford
Director
27 February 2020

Risk review and Capital review

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Risk review and Capital review

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The following parts of the Risk review and Capital review form part of the financial statements:

→ From the start of the 'Credit risk review' section (page 48) to the end of 'Other principal risk' in the same section (page 101), excluding:

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Other Principal risks	101

→ From the start of 'CRD IV capital base' (page 139) to the end of 'Movement in total capital' excluding capital ratios

Risk profile

Risk profile

Our risk profile in 2019

Our Enterprise Risk Management Framework (ERMF) and well-established risk governance structure enable us to closely manage enterprise-wide risks with the objective of maximising risk-adjusted returns while remaining within our Risk Appetite. We manage emerging risks developed through a dynamic risk scanning and risk identification process with inputs on the internal and external risk environment, as well as potential threats and opportunities from a business, function and client lens, enabling us to proactively manage our portfolio.

We continue to take action to reposition our corporate portfolio, exiting weaker credit or lower-returning clients and adding new clients selectively. We continue to remain alert to macroeconomic challenges that may impact our markets. Our corporate portfolios exhibit a strong and sustainable risk profile that is diversified across industries, geographies and products.

The table below highlights the overall risk profile associated with our business strategy.

Our risk profile in 2019

Strengthened risk management approach from an enhanced ERMF	Strong and sustainable asset growth	Our capital and liquidity positions continue to be at healthy levels
→ We have elevated Model Risk to a Principal Risk Type (PRT), effective in 2020 → We recognised Climate Risk as a material cross-cutting risk that manifests through other relevant Principal Risk Types → Existing PRTs were enhanced – changes include the expansion in Country Risk coverage, reclassification of Fraud Risk sub-type from Operational Risk to Financial Crime Risk, and principles relating to Environment and Social Risks, Defence and dual use goods embedded in Reputational Risk → A self-assessment process was formalised for our branches and subsidiaries to assess the adoption and effectiveness of the ERMF locally → The 2019 ERMF Effectiveness Review showed that risk management for both financial and non-financial risks improved year-on-year Further details on the ERMF can be found in the Risk Management Approach (Page 102)	→ The Group's proportions of stage 1 and stage 2 loans and advances to customers were broadly consistent with the prior period at 92 per cent and 6 per cent respectively → Asset quality has remained broadly stable → Total gross stage 3 loans are lower at $6.7 billion as compared to $8.5 billion, and the stage 3 cover ratio is up 3 per cent at 69 per cent → Credit impairment is $697 million, an increase of 6 per cent over 2018 on a continuing basis → Our corporate portfolios remain well-diversified across industry sectors, products and geographies, and predominantly short-dated	→ Our capital and liquidity position remain well above current requirements → Our liquidity buffer and cash outflows both grew in 2019 in line with the overall balance sheet growth → The advances-to-deposits ratio continues to be strong and stable → We remain a net provider of liquidity to interbank markets and our customer deposit base is diversified by type and maturity

Risk profile

Credit Risk

Basis of preparation

Unless otherwise stated the balance sheet and income statement information presented within this section is based on the Group's management view. This is principally the location from which a client relationship is managed, which may differ from where it is financially booked and may be shared between businesses and/or regions. This view reflects how the client segments and regions are managed internally.

Loans and advances to customers and banks held at amortised cost in this Risk profile section include reverse repurchase agreement balances held at amortised cost, per Note 14 Reverse repurchase and repurchase agreements including other similar secured lending and borrowing.

Credit risk overview

Credit Risk is the potential for loss due to the failure of a counterparty to meet its obligations to pay the Group. Credit exposures arise from both the banking and trading books

IFRS 9 methodology

A summary is detailed below:

Impairment model

IFRS 9 requires an impairment model that requires the recognition of expected credit losses (ECL) on all financial debt instruments held at amortised cost, fair value through other comprehensive income (FVOCI), undrawn loan commitments and financial guarantees.

Staging of financial instruments

Financial instruments that are not already credit-impaired are originated into stage 1 and a 12-month expected credit loss provision is recognised.

Instruments will remain in stage 1 until they are repaid, unless they experience significant credit deterioration (stage 2) or they become credit-impaired (stage 3).

Instruments will transfer to stage 2 and a lifetime expected credit loss provision recognised when there has been a significant change in the credit risk compared to what was expected at origination.

The framework used to determine a significant increase in credit risk is set out below.

Stage 1	Stage 2	Stage 3
•12-month ECL •Performing	•Lifetime expected credit loss •Performing but has exhibited significant increase in credit risk (SICR)	•Credit-impaired •Non-performing

IFRS 9 methodology

The main methodology principles and approach adopted by the Group are set out in the following table.

Title	Description	Supplementary Information	Page
Approach to determining expected credit losses	For material loan portfolios, the Group has adopted a statistical modelling approach for determining expected credit losses that makes extensive use of credit modelling. While these models leveraged existing advanced Internal Ratings Based (IRB) models, for determining regulatory expected losses where these were available, there are significant differences between the two approaches.	Credit risk methodology Determining lifetime expected credit loss for revolving products	48 82
Incorporation of forward-looking information	The determination of expected credit loss includes various assumptions and judgements in respect of forward-looking macroeconomic information. Refer page 82 for Incorporation of forward-looking information, forecast of key macroeconomic variables underlying the expected credit loss calculation and the impact on non-linearity and sensitivity of expected credit loss calculation to macroeconomic variables.	Incorporation of forward-looking information and impact of non-linearity Forecast of key macroeconomic variables underlying the expected credit loss calculation	82 82

Risk profile

Title	Description	Supplementary Information	Page
Significant increase in credit risk (SICR)	Expected credit loss for financial assets will transfer from a 12-month basis (stage 1) to a lifetime basis (stage 2) when there is a significant increase in credit risk (SICR) relative to that which was expected at the time of origination, or when the asset becomes credit-impaired. On transfer to a lifetime basis, the expected credit loss for those assets will reflect the impact of a default event expected to occur over the remaining lifetime of the instrument rather than just over the 12 months from the reporting date. SICR is assessed by comparing the risk of default of an exposure at the reporting date with the risk of default at origination (after considering the passage of time). 'Significant' does not mean statistically significant nor is it reflective of the extent of the impact on the Group's financial statements. Whether a change in the risk of default is significant or not is assessed using quantitative and qualitative criteria, the weight of which will depend on the type of product and counterparty.	Quantitative criteria Significant increase in credit risk thresholds Specific qualitative and quantitative criteria per segment: Corporate, Institutional and Commercial Banking clients Retail Banking clients Private Banking clients Debt securities	85 85 86 86 86 87 87
Assessment of credit-impaired financial assets	Credit-impaired (stage 3) financial assets comprise those assets that have experienced an observed credit event and are in default. Default represents those assets that are at least 90 days past due in respect of principal and interest payments and/or where the assets are otherwise considered unlikely to pay. This definition is consistent with internal credit risk management and the regulatory definition of default. Unlikely to pay factors include objective conditions such as bankruptcy, debt restructuring, fraud or death. It also includes credit-related modifications of contractual cash flows due to significant financial difficulty (forbearance) where the Group has granted concessions that it would not ordinarily consider. Following a clarification issued by International Financial Reporting Interpretations Committee (IFRIC) in March 2019, if there are any recoveries on stage 3 loans, any contractual interest earned while the asset was in stage 3 is recognised in the credit impairment line. Although this differs from the Group's previous approach of recognising a residual amount of this within interest income, there is no material impact on the classification of amounts reported in the income statement in the current or prior period and accordingly no adjustments have been made to comparative information. Further, the gross asset balances for stage 3 financial instruments have been increased to reflect contractual interest due but not paid with a corresponding increase in credit impairment provisions. These changes have been disclosed within the Credit Risk section. There has been no net impact on the balance sheet or on shareholders' equity.	Retail Banking clients Corporate & Institutional Banking clients Commercial Banking and Private Banking clients	86 86 87
Transfers between stages	Assets will transfer from stage 3 to stage 2 when they are no longer considered to be credit-impaired. Assets will not be considered credit-impaired only if the customer makes payments such that they are paid to current in line with the original contractual terms. Assets may transfer to stage 1 if they are no longer considered to have experienced a significant increase in credit risk. This will be immediate when the original PD based transfer criteria are no longer met (and as long as none of the other transfer criteria apply). Where assets were transferred using other measures, the assets will only transfer back to stage 1 when the condition that caused the significant increase in credit risk no longer applies (and as long as none of the other transfer criteria apply).	Movement in loan exposures and expected credit losses	62
Modified financial assets	Where the contractual terms of a financial instrument have been modified, and this does not result in the instrument being derecognised, a modification gain or loss is recognised in the income statement representing the difference between the original cashflows and the modified cash flows, discounted at the effective interest rate. The modification gain/loss is directly applied to the gross carrying amount of the instrument. If the modification is credit-related, such as forbearance or where the Group has granted concessions that it would not ordinarily	Forbearance and other modified loans	67

Risk profile

Title	Description	Supplementary Information	Page
	consider, then it will be considered credit-impaired. Modifications that are not credit related will be subject to an assessment of whether the asset's credit risk has increased significantly since origination by comparing the remaining lifetime probability of default (PD) based on the modified terms to the remaining lifetime PD based on the original contractual terms.		
Governance and application of expert credit judgement in respect of expected credit losses	The models used in determining ECL are reviewed and approved by the Group Credit Model Assessment Committee and have been validated by Group model validation, which is independent of the business. A quarterly model monitoring process is in place that uses recent data to compare the differences between model predictions and actual outcomes against approved thresholds. Where a model's performance breaches the monitoring thresholds then an assessment of whether an ECL adjustment is required to correct for the identified model issue is completed. The determination of expected credit losses requires a significant degree of management judgement which had an impact on governance processes, with the output of the expected credit models assessed by the IFRS 9 Impairment Committee.	Group Credit Model Assessment Committee IFRS 9 Impairment Committee	87 88

Risk profile

Maximum exposure to credit risk

The table below presents the Group's maximum exposure to credit risk for its on-balance sheet and off-balance sheet financial instruments as at 31 December 2019, before and after taking into account any collateral held or other credit risk mitigation.

The Group's on-balance sheet maximum exposure to credit risk fell by $210 billion to $459 billion (31 December 2018: $668 billion). Excluding the impact of the transfer of the GCNA hub, the maximum exposure to credit risk increased $21 billion. This increase was largely driven by an increase in investment securities as the Group increased exposures to financial institutions and an increase in loans and advances to customers.

Excluding the GCNA hub, other assets increased mainly driven by unsettled trades due to normal settlement timing differences.

Off-balance sheet credit risk exposures fell by $63 billion compared to 31 December 2018. Excluding the transfer of the GCNA hub, exposures fell by $5 billion.

Group	2019				2018			
		Credit risk management				Credit risk management		
	Maximum exposure $million	Collateral $million	Master netting agreements $million	Net Exposure $million	Maximum exposure $million	Collateral $million	Master netting agreements $million	Net exposure $million
On-balance sheet								
Cash and balances at central banks	43,926			43,926	57,511			57,511
Loans and advances to banks[1, 8]	36,948	585		36,363	61,411	3,815		57,596
of which - reverse repurchase agreements and other similar secured lending[7]	585	585		-	3,815	3,815		-
Loans and advances to customers[1, 8]	139,181	48,218		90,963	256,562	109,326		147,236
of which - reverse repurchase agreements and other similar secured lending[7]	1,339	1,339		-	3,151	3,151		-
Investment securities - Debt securities, alternative Tier 1 and other eligible bills[2]	89,231			89,231	125,638			125,638
Fair value through profit or loss[3, 7]	78,302	57,430	-	20,872	85,441	54,769		30,672
Loans and advances to banks	3,390			3,390	3,768			3,768
Loans and advances to customers	3,472			3,472	4,928			4,928
Reverse repurchase agreements and other similar lending[7]	57,430	57,430		-	54,769	54,769		-
Investment securities - Debt securities, alternative Tier 1 and other eligible bills[2]	14,010			14,010	21,976			21,976
Derivative financial instruments[4, 7]	48,883	7,604	31,106	10,173	46,990	9,259	32,283	5,448
Accrued income	1,564			1,564	2,228			2,228
Assets held for sale	70			70	22			22
Other assets [5]	20,385			20,385	32,666			32,666
Total balance sheet	458,490	113,837	31,106	313,547	668,469	177,169	32,283	459,017
Off-balance sheet								
Contingent liabilities[6]	35,611	-	-	35,611	41,952	-	-	41,952
Undrawn irrevocable standby facilities, credit lines and other commitments to lend[6]	90,942	-	-	90,942	147,728	-	-	147,728
Documentary credits and short-term trade-related transactions[6]	3,638	-	-	3,638	3,982	-	-	3,982
Total off-balance sheet	130,191	-	-	130,191	193,662	-	-	193,662
Total	588,681	113,837	31,106	443,738	862,131	177,169	32,283	652,679

1 An analysis of credit quality is set out in the credit quality analysis section (Page 57). Further details of collateral held by client segment and stage are set out in the collateral analysis section (page 73)

2 Excludes equity and other investments of $735 million (31 December 2018: $263 million). Further details are set out in Note 12 Financial Instruments

3 Excludes equity and other investments of $2,165 million (31 December 2018: $1,569 million). Further details are set out in Note 12 Financial Instruments

4 The Group enters into master netting agreements, which in the event of default result in a single amount owed by or to the counterparty through netting the sum of the positive and negative mark-to-market values of applicable derivative transactions

5 Other assets include Hong Kong certificates of indebtedness (2018 only), cash collateral, and acceptances, in addition to unsettled trades and other financial assets

6 Excludes ECL allowances which are reported under Provisions for liabilities and charges

7 Collateral capped at maximum exposure (over-collateralised)

8 Adjusted for over-collateralisation, which has been determined with reference to the drawn and undrawn component as this best reflects the effect on the amount arising from expected credit losses

Company	2019 Maximum exposure $million	2019 Credit risk management Collateral $million	2019 Credit risk management Master netting agreements $million	2019 Net Exposure $million	2018 Maximum exposure $million	2018 Credit risk management Collateral $million	2018 Credit risk management Master netting agreements $million	2018 Net exposure $million
On-balance sheet								
Cash and balances at central banks	34,734			34,734	44,749			44,749
Loans and advances to banks[1, 8]	22,265	146		22,119	23,732	26		23,706
of which - reverse repurchase agreements and other similar secured lending[7]	146	146		-	26	26		-
Loans and advances to customers[1, 8]	76,845	21,583		55,262	77,282	16,758		60,524
of which - reverse repurchase agreements and other similar secured lending[7]	1,179	1,179		-	1,470	1,470		-
Investment securities - Debt securities, alternative Tier 1 and other eligible bills[2]	71,648			71,648	63,809			63,809
Fair value through profit or loss[3, 7]	72,717	57,041	-	15,676	70,291	54,413		15,878
Loans and advances to banks	3,071			3,071	3,421			3,421
Loans and advances to customers	1,884			1,884	1,809			1,809
Reverse repurchase agreements and other similar lending[7]	57,041	57,041		-	54,413	54,413		-
Investment securities - Debt securities, alternative Tier 1 and other eligible bills[2]	10,721			10,721	10,648			10,648
Derivative financial instruments[4, 7]	48,524	7,328	31,092	10,104	46,930	8,975	34,498	3,457
Accrued income	1,148			1,148	1,182			1,182
Assets held for sale	70	-		70	43,327	3,993		39,334
Other assets [5]	17,750			17,750	19,069			19,069
Total balance sheet	345,701	86,098	31,092	228,511	390,371	84,165	34,498	271,708
Off-balance sheet								
Contingent liabilities[6]	28,480	-	-	28,480	32,078	-	-	32,078
Undrawn irrevocable standby facilities, credit lines and other commitments to lend[6]	62,747	-	-	62,747	82,704	-	-	82,704
Documentary credits and short-term trade-related transactions[6]	2,094	-	-	2,094	2,685	-	-	2,685
Total off-balance sheet	93,321	-	-	93,321	117,467	-	-	117,467
Total	439,022	86,098	31,092	321,832	507,838	84,165	34,498	389,175

1 An analysis of credit quality is set out in the credit quality analysis section (Page 57). Further details of collateral held by client segment and stage are set out in the collateral analysis section (page 73)

2 Excludes equity and other investments of $193 million (31 December 2018: $174 million). Further details are set out in Note 12 Financial Instruments

3 Excludes equity and other investments of $2,118 million (31 December 2018: $1,359 million). Further details are set out in Note 12 Financial Instruments

4 The Group enters into master netting agreements, which in the event of default result in a single amount owed by or to the counterparty through netting the sum of the positive and negative mark-to-market values of applicable derivative transactions

5 Other assets include cash collateral, and acceptances, in addition to unsettled trades and other financial assets

6 Excludes ECL allowances which are reported under Provisions for liabilities and charges

7 Collateral capped at maximum exposure (over-collateralised)

8 Adjusted for over-collateralisation, which has been determined with reference to the drawn and undrawn component as this best reflects the effect on the amount arising from expected credit losses

Analysis of financial instrument by stage

This table shows financial instruments and off-balance sheet commitments by stage, along with the total credit impairment loss provision against each class of financial instrument.

Gross balances reduced by $270 billion in 2019 due to the transfer out of the Group of the GCNA hub, of which stage 1 is $431 billion, stage 2 $29 billion, and stage 3 is $7.5 billion.

The proportion of financial instruments held within stage 1 is broadly stable at 92 per cent (31 December 2018: 93 per cent). Stage 2 financial instruments is flat at 6 per cent (31 December 2018: 6 per cent). While the proportion of debt securities held in stage 2 was flat compared to 2018, after excluding the impact of the GCNA hub transfers, the proportion declined to 5 per cent compared to 9 per cent at 31 December 2018, reflecting changes in the approach for stage allocations with a consequential reduction in the credit impairment provisions held. Stage 2 also includes the impact of downgrading $550 million of government securities, loans to banks and loans to financial institutions to 'Higher risk' following the sovereign downgrades in Zambia, Zimbabwe and Lebanon. The downgrades are specifically due to the change in sovereign ratings and do not represent any specific concerns related to our obligors.

Stage 3 financial instruments were marginally higher at 1.6 per cent of the Group total as total assets reduced because of the transfer out of the GCNA hub. Stage 3 loans and advances to customers fell $1.8 billion due to a combination of repayments, write-offs and upgrades to stage 2. The stage 3 cover ratio (excluding collateral) was higher at 69 per cent from 66 per cent on 31 December 2018.

	2019											
	Stage 1			Stage 2			Stage 3			Total		
Group	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million
Cash and balances at central banks	43,926	-	43,926	-	-	-	-	-	-	43,926	-	43,926
Loans and advances to banks (amortised cost)	36,164	(3)	36,161	789	(2)	787	-	-	-	36,953	(5)	36,948
Loans and advances to customers (amortised cost)	123,824	(239)	123,585	13,827	(272)	13,555	6,673	(4,632)	2,041	144,324	(5,143)	139,181
Debt securities, alternative Tier 1 and other eligible bills	84,609	(47)		4,607	(23)		75	(45)		89,291	(115)	
Amortised cost	11,806	(9)	11,797	240	(6)	234	75	(45)	30	12,121	(60)	12,061
FVOCI[2]	72,803	(38)		4,367	(17)		-	-		77,170	(55)	
Accrued income (amortised cost)[4]	1,564	-	1,564	-	-	-	-	-	-	1,564	-	1,564
Assets held for sale[4]	70	-	70	-	-	-	-	-	-	70	-	70
Other assets	20,386	(3)	20,383	-	-	-	163	(161)	2	20,549	(164)	20,385
Undrawn commitments[3]	87,833	(30)		6,729	(33)		18	-		94,580	(63)	
Financial guarantees[3]	32,339	(13)		2,687	(15)		585	(206)		35,611	(234)	
Total	430,715	(335)		28,639	(345)		7,514	(5,044)		466,868	(5,724)	

1 Gross carrying amount for off-balance sheet refers to notional values

2 These instruments are held at fair value on the balance sheet. The ECL provision in respect of debt securities measured at FVOCI is held within the OCI reserve

3 These are off-balance sheet instruments. Only the ECL is recorded on-balance sheet as a financial liability and therefore there is no "net carrying amount". ECL allowances on off-balance sheet instruments are held as liability provisions to the extent that the drawn and undrawn components of loan exposures can be separately identified. Otherwise they will be reported against the drawn component

4 Stage 1 ECL is not material

Group	2018											
	Stage 1			Stage 2			Stage 3			Total		
	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million
Cash and balances at central banks	57,511	-	57,511	-	-	-	-	-	-	57,511	-	57,511
Loans and advances to banks (amortised cost)	60,347	(5)	60,342	1,070	(1)	1,069	-	-	-	61,417	(6)	61,411
Loans and advances to customers (amortised cost)[2]	237,107	(426)	236,681	17,428	(416)	17,012	8,455	(5,586)	2,869	262,990	(6,428)	256,562
Debt securities, alternative Tier 1 and other eligible bills	118,715	(27)		6,908	(31)		498	(473)		126,121	(531)	
Amortised cost	8,226	(7)	8,219	1,062	(3)	1,059	498	(473)	25	9,786	(483)	9,303
FVOCI[3]	110,489	(20)		5,846	(28)		-	-		116,335	(48)	
Accrued income (amortised cost)[5]	2,228	-	2,228	-	-	-	-	-	-	2,228	-	2,228
Assets held for sale[5]	22	-	22	-	-	-	-	-	-	22	-	22
Other assets[5]	32,666	-	32,666	-	-	-	155	(155)	-	32,821	(155)	32,666
Undrawn commitments[4]	137,783	(69)		13,864	(39)		63	-		151,710	(108)	
Financial guarantees[4]	38,532	(4)		3,053	(13)		367	(156)		41,952	(173)	
Total	684,911	(531)		42,323	(500)		9,538	(6,370)		736,772	(7,401)	

1 Gross carrying amount for off-balance sheet refers to notional values

2 Stage 3 balances have been restated to reflect interest due but unpaid together with equivalent credit impairment charges

3 These instruments are held at fair value on the balance sheet. The ECL provision in respect of debt securities measured at FVOCI is held within the OCI reserve

4 These are off-balance sheet instruments. Only the ECL is recorded on-balance sheet as a financial liability and therefore there is no "net carrying amount". ECL allowances on off-balance sheet instruments are held as liability provisions to the extent that the drawn and undrawn components of loan exposures can be separately identified. Otherwise they will be reported against the drawn component

5 Stage 1 ECL is not material

Company	2019											
	Stage 1			Stage 2			Stage 3			Total		
	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million
Cash and balances at central banks	34,734	-		-	-		-	-		34,734	-	34,734
Loans and advances to banks (amortised cost)	21,696	(1)	21,695	572	(2)	570	-	-	-	22,268	(3)	22,265
Loans and advances to customers (amortised cost)	66,728	(119)	66,609	8,878	(147)	8,731	5,211	(3,706)	1,505	80,817	(3,972)	76,845
Debt securities, alternative Tier 1 and other eligible bills	70,515	(29)		1,117	(5)		43	(17)		71,675	(51)	
Amortised cost	10,306	(8)	10,298	165	(2)	163	43	(17)	26	10,514	(27)	10,487
FVOCI[2]	60,209	(21)		952	(3)		-	-		61,161	(24)	
Accrued income (amortised cost)[5]	1,148	-	1,148	-	-	-	-	-	-	1,148	-	1,148
Assets held for sale[5]	70	-	70	-	-	-	-	-	-	70	-	70
Other assets[5]	17,750	-	17,750	-	-	-	6	(6)	-	17,756	(6)	17,750
Undrawn commitments[3]	60,347	(20)		4,476	(20)		18	-		64,841	(40)	
Financial guarantees[3]	26,064	(7)		1,850	(7)		566	(201)		28,480	(215)	
Total[4]	299,052	(176)		16,893	(181)		5,844	(3,930)		321,789	(4,287)	

1 Gross carrying amount for off-balance sheet refers to notional values

2 These instruments are held at fair value on the balance sheet. The ECL provision in respect of debt securities measured at FVOCI is held within the OCI reserve

3 These are off-balance sheet instruments. Only the ECL is recorded on-balance sheet as a financial liability and therefore there is no “net carrying amount”. ECL allowances on off-balance sheet instruments are held as liability provisions to the extent that the drawn and undrawn components of loan exposures can be separately identified. Otherwise they will be reported against the drawn component

4 Excludes 'Amounts due from subsidiary undertakings and other related parties' of $21,926 million. The amounts are held within stage 1 and rated as 'strong' at 31 December 2019 and is net of an expected credit loss of $21 million

5 Stage 1 ECL is not material

Company	2018											
	Stage 1			Stage 2			Stage 3			Total		
	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million	Gross balance[1] $million	Total credit impairment $million	Net carrying value $million
Cash and balances at central banks	44,749	-		-	-		-	-		44,749	-	
Loans and advances to banks (amortised cost)	23,353	(2)	23,351	381	-	381	-	-	-	23,734	(2)	23,732
Loans and advances to customers (amortised cost)[2]	68,277	(151)	68,126	7,491	(204)	7,287	6,205	(4,336)	1,869	81,973	(4,691)	77,282
Debt securities, alternative Tier 1 and other eligible bills	61,836	(20)		1,978	(3)		-	-		63,814	(23)	
Amortised cost	8,621	(2)	8,619	740	(3)	737	-	-	-	9,361	(5)	9,356
FVOCI[3]	53,215	(18)		1,238	-		-	-		54,453	(18)	
Accrued income (amortised cost)[6]	1,182	-	1,182	-	-		-	-		1,182	-	1,182
Assets held for sale[6]	43,327	-	43,327	-	-		-	-		43,327	-	43,327
Other assets[6]	19,069	-	19,069	-	-	-	-	-	-	19,069	-	19,069
Undrawn commitments[4]	78,280	(30)		7,046	(28)		63	-		85,389	(58)	
Financial guarantees[4]	29,530	(3)		2,196	(12)		352	(156)		32,078	(171)	
Total[5]	369,603	(206)		19,092	(247)		6,620	(4,492)		395,315	(4,945)	

1 Gross carrying amount for off-balance sheet refers to notional values

2 Stage 3 balances have been restated to reflect interest due but unpaid together with equivalent credit impairment charges

3 These instruments are held at fair value on the balance sheet. The ECL provision in respect of debt securities measured at FVOCI is held within the OCI reserve

4 These are off-balance sheet instruments. Only the ECL is recorded on-balance sheet as a financial liability and therefore there is no “net carrying amount”. ECL allowances on off-balance sheet instruments are held as liability provisions to the extent that the drawn and undrawn components of loan exposures can be separately identified. Otherwise they will be reported against the drawn component

5 Excludes 'Amounts due from subsidiary undertakings and other related parties' of $12,025 million. The amounts are held within stage 1 and rated as 'strong' at 31 December 2018 and is net of an expected credit loss of $28 million

6 Stage 1 ECL is not material

Credit quality analysis

Credit quality by client segment

For the Corporate & Institutional Banking and Commercial Banking portfolios, exposures are analysed by credit grade (CG), which plays a central role in the quality assessment and monitoring of risk. All loans are assigned a CG, which is reviewed periodically and amended in light of changes in the borrower's circumstances or behaviour. CGs 1 to 12 are assigned to stage 1 and stage 2 (performing) clients or accounts, while CGs 13 and 14 are assigned to stage 3 (defaulted) clients. The mapping of credit quality is as follows.

Mapping of credit quality

The Group uses the following internal risk mapping to determine the credit quality for loans.

Credit quality description	Corporate & Institutional Banking and Commercial Banking			Private Banking[1]	Retail Banking
	Internal Grade mapping	S&P external ratings equivalent	Regulatory PD range (%)	Internal ratings	Number of days past due
Strong	1A to 5B	AAA to BB+	0 to 0.425	Class I and Class IV	Current loans (no past dues nor impaired)
Satisfactory	6A to 11C	BB to CCC	0.426 to 15.75	Class II and Class III	Loans past due till 29 days
Higher Risk	Grade 12	B-CCC/C	15.751-99.999	GSAM managed	Past due loans 30 days and over till 90 days

1 For Private Banking, classes of risk represent the type of collateral held. Class I represents facilities with liquid collateral, such as cash and marketable securities. Class II represents unsecured/partially secured facilities and those with illiquid collateral, such as equity in private enterprises. Class III represents facilities with residential or commercial real estate collateral. Class IV covers margin trading facilities

The table overleaf sets out the gross loans and advances held at amortised cost, expected credit loss provisions and expected credit loss coverage by business segment and stage. Expected credit loss coverage represents the expected credit loss reported for each segment and stage as a proportion of the gross loan balance for each segment and stage.

Stage 1

Stage 1 gross loans and advances to customers decreased by $113.3 billion compared to 31 December 2018. Excluding the GCNA transfers in 2019, stage 1 increased by $1.6 billion, or 1 per cent. and represents 86 per cent of loans and advances to customers (31 December 2018: 90 per cent, 85 per cent excluding the GCNA hub). The stage 1 coverage ratio remained at 0.2 per cent compared to 31 December 2018.

81 per cent (31 December 2018: 85 per cent, 80 per cent excluding the GCNA hub) of loans in Corporate & Institutional Banking and Commercial Banking are held in stage 1, with those rated as strong at 54 per cent (31 December 2018: 55 per cent) as the Group continues to focus on the origination of investment grade lending. Excluding the impact of GCNA hub transfers, within Corporate & Institutional Banking and Commercial Banking, overall stage 1 loans grew by $0.9 billion, reflecting the overall change in the Commercial Banking portfolio since 31 December 2018.

Retail Banking stage 1 loans decreased to 92 per cent (2018: 96 per cent, 93 per cent excluding the GCNA hub) with the proportion rated as strong at 95 per cent.

Stage 2

Stage 2 loans and advances to customers gross balances decreased by $3.6 billion. Excluding the impact of the GCNA hub transfers, stage 2 increased by $0.1 billion compared to 31 December 2018, with the proportion of stage 2 loans increasing from 7 per cent to 10 per cent. Excluding the impact of the GCNA hub transfers, Corporate & Institutional Banking stage 2 balances increased reflecting higher levels of non-purely precautionary early alerts. This was largely offset by lower Commercial Banking balances in line with the overall improvement in credit quality of the portfolio.

Retail Banking stage 2 loans saw a slight decrease in coverage to 4.6 per cent compared to 4.7 per cent in 2018. However, after excluding the GCNA hub, coverage increased slightly in part due to an increase in past dues in some payroll linked exposures in Africa & Middle East.

Stage 2 loans to banks classified as 'Higher risk' increased by $0.2 billion following the sovereign downgrades in Zambia, Zimbabwe and Lebanon.

Stage 3

Stage 3 loans and advances to customers fell by $1.8 billion, or 21 per cent, to $6.7 billion compared with 31 December 2018, with overall stage 3 provisions declining by $1.0 billion to $4.6 billion. Excluding the GCNA hub, stage 3 loans and advances were $1.0 billion lower and provisions fell $0.6 billion. The stage 3 cover ratio (excluding collateral) increased 3 per cent to 69 per cent, largely in Corporate & Institutional Banking from repayments, new provisions and upgrades to stage 2.

In Corporate & Institutional Banking and Commercial Banking, gross stage 3 loans fell by $1.6 billion compared with 31 December 2018 of which $0.4 billion is due to of the transfer of the GCNA hub. Provisions also fell by $0.8 billion from $5.0 billion to $4.2 billion of which $0.2 billion relates to GCNA hub.

Inflows into stage 3 for Corporate & Institutional Banking and Commercial Banking in 2019 were 26 per cent lower compared to 2018, reflecting continued improvement in the portfolio with an increase only in ASEAN & South Asia region.

Retail stage 3 loans were lower by $0.3 billion at $0.5 billion which is mainly due to the transfer of loans to the GCNA hub.

Private Banking stage 3 loans marginally increased by $6 8million in ASEAN & South Asia and Europe & Americas regions to $0.4 billion.

Risk profile

Loans and advances by client segment

Group	2019								
		Customers							
Amortised cost	Banks $million	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Customer Total $million	Undrawn commitments $million	Financial Guarantees $million
Stage 1	36,164	62,461	31,646	11,194	8,587	9,936	123,824	87,833	32,339
- Strong	25,561	38,025	30,117	1,847	5,763	9,805	85,557	73,758	21,464
- Satisfactory	10,603	24,436	1,529	9,347	2,824	131	38,267	14,075	10,875
Stage 2	789	9,234	2,062	2,240	284	7	13,827	6,729	2,687
- Strong	224	1,306	1,529	139	280	-	3,254	3,083	871
- Satisfactory	342	6,867	302	1,908	4	-	9,081	3,348	1,609
- Higher risk	223	1,061	231	193	-	7	1,492	298	207
Of which (stage 2):									
- Less than 30 days past due	*2*	*150*	*302*	*23*	*-*	*-*	*475*		
- More than 30 days past due	*-*	*176*	*231*	*85*	*4*	*-*	*496*		
Stage 3, credit-impaired financial assets	-	4,087	549	1,671	366	-	6,673	18	585
Gross balance[1]	36,953	75,782	34,257	15,105	9,237	9,943	144,324	94,580	35,611
Stage 1	(3)	(56)	(159)	(17)	(6)	(1)	(239)	(30)	(13)
- Strong	-	(17)	(80)	-	(4)	-	(101)	(12)	(4)
- Satisfactory	(3)	(39)	(79)	(17)	(2)	(1)	(138)	(18)	(9)
Stage 2	(2)	(137)	(94)	(40)	(1)	-	(272)	(33)	(15)
- Strong	-	(27)	(36)	(1)	(1)	-	(65)	(5)	-
- Satisfactory	(2)	(52)	(38)	(27)	-	-	(117)	(11)	(6)
- Higher risk	-	(58)	(20)	(12)	-	-	(90)	(18)	(9)
Of which (stage 2):									
- Less than 30 days past due	*-*	*(3)*	*(38)*	*(2)*	*-*	*-*	*(43)*		
- More than 30 days past due	*-*	*(4)*	*(20)*	*(5)*	*-*	*-*	*(29)*		
Stage 3, credit-impaired financial assets	-	(2,950)	(248)	(1,287)	(147)	-	(4,632)	-	(206)
Total credit impairment	(5)	(3,143)	(501)	(1,344)	(154)	(1)	(5,143)	(63)	(234)
Net carrying value	36,948	72,639	33,756	13,761	9,083	9,942	139,181		
Stage 1	0.0%	0.1%	0.5%	0.2%	0.1%	0.0%	0.2%	0.0%	0.0%
- Strong	0.0%	0.0%	0.3%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%
- Satisfactory	0.0%	0.2%	5.2%	0.2%	0.1%	0.8%	0.4%	0.1%	0.1%
Stage 2	0.3%	1.5%	4.6%	1.8%	0.4%	0.0%	2.0%	0.5%	0.6%
- Strong	0.0%	2.1%	2.4%	0.7%	0.4%	0.0%	2.0%	0.1%	0.0%
- Satisfactory	0.6%	0.8%	12.6%	1.4%	0.0%	0.0%	1.3%	0.3%	0.4%
- Higher risk	0.0%	5.5%	8.7%	6.2%	0.0%	0.0%	6.0%	6.0%	4.3%
Of which (stage 2):									
- Less than 30 days past due	0.0%	2.0%	12.6%	8.7%	0.0%	0.0%	9.1%		
- More than 30 days past due	0.0%	2.3%	8.7%	5.9%	0.0%	0.0%	5.8%		
Stage 3, credit-impaired financial assets	0.0%	72.2%	45.2%	77.0%	40.2%	0.0%	69.4%	0.0%	35.2%
Cover ratio	0.0%	4.1%	1.5%	8.9%	1.7%	0.0%	3.6%	0.1%	0.7%
Fair value through profit or loss									
Performing	21,659	42,182	18	389	-	2	42,591	-	-
- Strong	19,079	24,258	18	20	-	1	24,297	-	-
- Satisfactory	2,580	17,915	-	369	-	1	18,285	-	-
- Higher risk	-	9	-	-	-	-	9	-	-
Defaulted (CG13-14)	-	34	-	8	-	-	42	-	-
Gross balance (FVTPL)[2]	21,659	42,216	18	397	-	2	42,633	-	-
Net carrying value (incl FVTPL)	58,607	114,855	33,774	14,158	9,083	9,944	181,814		

1 Loans and advances include reverse repurchase agreements and other similar secured lending for $1,339 million under Customers and for $585 million under Banks, held at amortised cost.

2 Loans and advances include reverse repurchase agreements and other similar secured lending for $39,161 million under Customers and for $18,269 million under Banks, held at fair value through profit and loss

Group

Amortised cost	Banks $million	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Customer Total $million	Undrawn commitments $million	Financial Guarantees $million
	2018								
		Customers							
Stage 1	60,347	93,860	98,393	21,913	12,705	10,236	237,107	137,783	38,532
- Strong	47,857	58,181	96,506	5,527	9,447	10,185	179,846	114,402	30,211
- Satisfactory	12,490	35,679	1,887	16,386	3,258	51	57,261	23,381	8,321
Stage 2	1,070	9,356	2,838	4,423	785	26	17,428	13,864	3,053
- Strong	403	1,429	1,957	270	713	-	4,369	6,996	682
- Satisfactory	665	6,827	500	3,732	-	26	11,085	5,485	1,948
- Higher risk	2	1,100	381	421	72	-	1,974	1,383	423
Of which (stage 2):									
- Less than 30 days past due	*27*	*232*	*500*	*198*	-	-	*930*		
- More than 30 days past due	-	*190*	*381*	*99*	*3*	-	*673*		
Stage 3, credit-impaired financial assets[3]	-	4,996	832	2,329	298	-	8,455	63	367
Gross balance[1]	61,417	108,212	102,063	28,665	13,788	10,262	262,990	151,710	41,952
Stage 1	(5)	(94)	(300)	(23)	(9)	-	(426)	(69)	(4)
- Strong	(2)	(32)	(149)	-	(9)	-	(190)	(35)	(2)
- Satisfactory	(3)	(62)	(151)	(23)	-	-	(236)	(34)	(2)
Stage 2	(1)	(194)	(132)	(90)	-	-	(416)	(39)	(13)
- Strong	-	(11)	(42)	(3)	-	-	(56)	3	-
- Satisfactory	(1)	(66)	(50)	(45)	-	-	(161)	(19)	(3)
- Higher risk	-	(117)	(40)	(42)	-	-	(199)	(23)	(10)
Of which (stage 2):									
- Less than 30 days past due	-	*(34)*	*(50)*	*(9)*	-	-	*(93)*		
- More than 30 days past due	-	*(2)*	*(40)*	*(4)*	-	-	*(46)*		
Stage 3, credit-impaired financial assets[3]	-	(3,238)	(396)	(1,789)	(163)	-	(5,586)	-	(156)
Total credit impairment	(6)	(3,526)	(828)	(1,902)	(172)	-	(6,428)	(108)	(173)
Net carrying value	61,411	104,686	101,235	26,763	13,616	10,262	256,562		
Stage 1	0.0%	0.1%	0.3%	0.1%	0.1%	0.0%	0.2%	0.1%	0.0%
- Strong	0.0%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%
- Satisfactory	0.0%	0.2%	8.0%	0.1%	0.0%	0.0%	0.4%	0.1%	0.0%
Stage 2	0.1%	2.1%	4.7%	2.0%	0.0%	0.0%	2.4%	0.3%	0.4%
- Strong	0.0%	0.8%	2.1%	1.1%	0.0%	-	1.3%	0.0%	0.0%
- Satisfactory	0.2%	1.0%	10.0%	1.2%	-	0.0%	1.5%	0.3%	0.2%
- Higher risk	0.0%	10.6%	10.5%	10.0%	0.0%	-	10.1%	1.7%	2.4%
Of which (stage 2):									
- Less than 30 days past due	*0.0%*	*14.7%*	*10.0%*	*4.5%*	-	-	*10.0%*		
- More than 30 days past due	-	*1.1%*	*10.5%*	*4.0%*	*0.0%*	-	*6.8%*		
Stage 3, credit-impaired financial assets [3]	-	64.8%	47.6%	76.8%	54.7%	0.0%	66.1%	-	42.5%
Cover ratio	0.0%	3.3%	0.8%	6.6%	1.2%	0.0%	2.4%	0.1%	0.4%
Fair value through profit or loss									
Performing	20,651	41,886	400	479	-	4	42,769	-	-
- Strong	19,515	33,178	395	247	-	3	33,823	-	-
- Satisfactory	1,136	8,700	4	232	-	1	8,937	-	-
- Higher risk	-	8	1	-	-	-	9	-	-
Defaulted (CG13-14)	-	12	-	33	-	-	45	-	-
Gross balance[2]	20,651	41,898	400	512	-	4	42,814	-	-
Net carrying value (incl FVTPL)	82,062	146,584	101,635	27,275	13,616	10,266	299,376		

1 Loans and advances include reverse repurchase agreements and other similar secured lending of $3,151 million under Customers and of $3,815 million under Banks, held at amortised cost

2 Loans and advances include reverse repurchase agreements and other similar secured lending of $37,886 million under Customers and of $16,883 million under Banks, held at fair value through profit and loss

3 Stage 3 balances have been restated to reflect interest due but unpaid together with equivalent credit impairment charges. The cover ratios have been restated as a result

Risk profile

Loans and advances by client segment

Company

Amortised cost	Banks $million	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Customer Total $million	Undrawn commitments $million	Financial Guarantees $million
	2019								
		Customers							
Stage 1	21,696	46,547	8,727	7,483	3,320	651	66,728	60,347	26,064
- Strong	15,468	30,277	8,308	1,222	1,452	525	41,784	50,231	17,556
- Satisfactory	6,228	16,270	419	6,261	1,868	126	24,944	10,116	8,508
Stage 2	572	6,388	1,041	1,384	65	-	8,878	4,476	1,850
- Strong	26	611	887	84	61	-	1,643	1,750	599
- Satisfactory	329	5,048	67	1,182	4	-	6,301	2,602	1,104
- Higher risk	217	729	87	118	-	-	934	123	146
Of which (stage 2):									
- Less than 30 days past due	*2*	*88*	*67*	*13*	*-*	*-*	*168*		
- More than 30 days past due	*-*	*164*	*87*	*69*	*4*	*-*	*324*		
Stage 3, credit-impaired financial assets	-	3,540	202	1,124	345	-	5,211	18	566
Gross balance[1]	22,268	56,475	9,970	9,991	3,730	651	80,817	64,841	28,480
Stage 1	(1)	(39)	(66)	(10)	(4)	-	(119)	(20)	(7)
- Strong	(1)	(15)	(33)	-	(2)	-	(50)	(11)	(5)
- Satisfactory	-	(24)	(33)	(10)	(2)	-	(69)	(9)	(2)
Stage 2	(2)	(90)	(32)	(25)	-	-	(147)	(20)	(7)
- Strong	-	(13)	(13)	-	-	-	(26)	(4)	(3)
- Satisfactory	(2)	(53)	(8)	(15)	-	-	(76)	(3)	-
- Higher risk	-	(24)	(11)	(10)	-	-	(45)	(12)	(4)
Of which (stage 2):									
- Less than 30 days past due	*-*	*(2)*	*(8)*	*(1)*	*-*	*-*	*(11)*		
- More than 30 days past due	*-*	*(2)*	*(11)*	*(3)*	*-*	*-*	*(16)*		
Stage 3, credit-impaired financial assets	-	(2,592)	(98)	(872)	(144)	-	(3,706)	-	(201)
Total credit impairment	(3)	(2,721)	(196)	(907)	(148)	-	(3,972)	(40)	(215)
Net carrying value	22,265	53,754	9,774	9,084	3,582	651	76,845		
Stage 1	0.0%	0.1%	0.8%	0.1%	0.1%	0.0%	0.2%	0.0%	0.0%
- Strong	0.0%	0.0%	0.4%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%
- Satisfactory	0.0%	0.1%	7.9%	0.2%	0.1%	0.0%	0.3%	0.1%	0.0%
Stage 2	0.3%	1.4%	3.1%	1.8%	0.0%	0.0%	1.7%	0.4%	0.4%
- Strong	0.0%	2.1%	1.5%	0.0%	0.0%	0.0%	1.6%	0.3%	0.5%
- Satisfactory	0.6%	1.0%	11.9%	1.3%	0.0%	0.0%	1.2%	0.1%	0.0%
- Higher risk	0.0%	3.3%	12.6%	8.5%	0.0%	0.0%	4.8%	10.0%	2.7%
Of which (stage 2):									
- Less than 30 days past due	0.0%	2.3%	11.9%	7.7%	0.0%	0.0%	6.5%		
- More than 30 days past due	0.0%	1.2%	12.6%	4.3%	0.0%	0.0%	4.9%		
Stage 3, credit-impaired financial assets	0.0%	73.2%	48.5%	77.6%	41.7%	0.0%	71.1%	0.0%	35.5%
Cover ratio	0.0%	4.8%	2.0%	9.1%	4.0%	0.0%	4.9%	0.1%	0.8%
Fair value through profit or loss									
Performing	21,276	40,404	-	280	-	2	40,686	-	-
- Strong	18,696	22,977	-	5	-	1	22,983	-	-
- Satisfactory	2,580	17,418	-	275	-	1	17,694	-	-
- Higher risk	-	9	-	-	-	-	9	-	-
Defaulted (CG13-14)	-	34	-	-	-	-	34	-	-
Gross balance (FVTPL)[2]	21,276	40,438	-	280	-	2	40,720	-	-
Net carrying value (incl FVTPL)	43,541	94,192	9,774	9,364	3,582	653	117,565		

1 Loans and advances include reverse repurchase agreements and other similar secured lending for $1,179 million under Customers and for $146 million under Banks, held at amortised cost.

2 Loans and advances include reverse repurchase agreements and other similar secured lending for $38,836 million under Customers and for $18,205 million under Banks, held at fair value through profit and loss

Company

Amortised cost	Banks $million	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Customer Total $million	Undrawn commitments $million	Financial Guarantees $million
	2018								
		Customers							
Stage 1	23,353	47,150	9,444	7,127	3,506	1,050	68,277	137,783	38,532
- Strong	15,749	29,540	9,019	1,229	1,207	1,020	42,015	114,402	30,211
- Satisfactory	7,604	17,610	425	5,898	2,299	30	26,262	23,381	8,321
Stage 2	381	4,730	607	1,732	395	27	7,491	13,864	3,053
- Strong	61	610	435	30	335	-	1,410	6,996	682
- Satisfactory	318	3,436	52	1,536	-	27	5,051	5,485	1,948
- Higher risk	2	684	120	166	60	-	1,030	1,383	423
Of which (stage 2):									
- Less than 30 days past due	*16*	*160*	*52*	*92*	*-*	-	*304*		
- More than 30 days past due	-	*160*	*120*	*51*	*3*	-	*334*		
Stage 3, credit-impaired financial assets[3]	-	4,378	175	1,356	296	-	6,205	63	367
Gross balance[1]	23,734	56,258	10,226	10,215	4,197	1,077	81,973	151,710	41,952
Stage 1	(2)	(58)	(77)	(10)	(6)	-	(151)	(69)	(4)
- Strong	(1)	(14)	(13)	-	(6)	-	(33)	(35)	(2)
- Satisfactory	(1)	(44)	(64)	(10)	-	-	(118)	(34)	(2)
Stage 2	-	(109)	(43)	(52)	-	-	(204)	(39)	(13)
- Strong	-	(21)	(18)	(5)	-	-	(44)	3	-
- Satisfactory	-	(23)	(10)	(29)	-	-	(62)	(19)	(3)
- Higher risk	-	(65)	(15)	(18)	-	-	(98)	(23)	(10)
Of which (stage 2):									
- Less than 30 days past due	-	*(24)*	*(10)*	*(2)*	-	-	*(36)*		
- More than 30 days past due	-	-	*(15)*	*(3)*	-	-	*(18)*		
Stage 3, credit-impaired financial assets[3]	-	(2,943)	(91)	(1,140)	(162)	-	(4,336)	-	(156)
Total credit impairment	(2)	(3,110)	(211)	(1,202)	(168)	-	(4,691)	(108)	(173)
Net carrying value	23,732	53,148	10,015	9,013	4,029	1,077	77,282		
Stage 1	0.0%	0.1%	0.8%	0.1%	0.2%	0.0%	0.2%	0.1%	0.0%
- Strong	0.0%	0.0%	0.1%	0.0%	0.5%	0.0%	0.1%	0.0%	0.0%
- Satisfactory	0.0%	0.2%	15.1%	0.2%	0.0%	0.0%	0.4%	0.1%	0.0%
Stage 2	0.0%	2.3%	7.1%	3.0%	0.0%	0.0%	2.7%	0.3%	0.4%
- Strong	0.0%	3.4%	4.1%	16.7%	0.0%	-	3.1%	0.0%	0.0%
- Satisfactory	0.0%	0.7%	19.2%	1.9%	-	0.0%	1.2%	0.3%	0.2%
- Higher risk	0.0%	9.5%	12.5%	10.8%	0.0%	-	9.5%	1.7%	2.4%
Of which (stage 2):									
- Less than 30 days past due	*0.0%*	*15.0%*	*19.2%*	*2.2%*	*-*	-	*11.8%*		
- More than 30 days past due	-	*0.0%*	*12.5%*	*5.9%*	*0.0%*	-	*5.4%*		
Stage 3, credit-impaired financial assets[3]	-	67.2%	52.0%	84.1%	54.7%	0.0%	69.9%	-	42.5%
Cover ratio	0.0%	5.5%	2.1%	11.8%	4.0%	0.0%	5.7%	0.1%	0.4%
Fair value through profit or loss									
Performing	20,143	39,449	-	31	-	3	39,483	-	-
- Strong	19,007	31,206	-	10	-	3	31,219	-	-
- Satisfactory	1,136	8,235	-	21	-	-	8,256	-	-
- Higher risk	-	8	-	-	-	-	8	-	-
Defaulted (CG13-14)	-	12	-	5	-	-	17	-	-
Gross balance[2]	20,143	39,461	-	36	-	3	39,500	-	-
Net carrying value (incl FVTPL)	43,875	92,609	10,015	9,049	4,029	1,080	116,782		

1 Loans and advances include reverse repurchase agreements and other similar secured lending of $1,470 million under Customers and of $26 million under Banks, held at amortised cost

2 Loans and advances include reverse repurchase agreements and other similar secured lending of $37,691 million under Customers and of $16,722 million under Banks, held at fair value through profit and loss

3 Stage 3 balances have been restated to reflect interest due but unpaid together with equivalent credit impairment changes. The cover ratios have been restated as a result

Movement in gross exposures and credit impairment for loans and advances, debt securities, undrawn commitments and financial guarantees

The tables overleaf set out the movement in gross exposures and credit impairment by stage in respect of amortised cost loans to banks and customers, undrawn committed facilities, undrawn cancellable facilities, debt securities classified at amortised cost and FVOCI and financial guarantees. The tables are presented for the Group, and the Corporate & Institutional Banking, Commercial Banking and Retail Banking segments.

Methodology

The movement lines within the tables are an aggregation of monthly movements over the year and will therefore reflect the accumulation of multiple trades during the year. The credit impairment charge in the income statement comprises the amounts within the boxes in the table below less recoveries of amounts previously written off. Discount unwind is reported in net interest income and related to stage 3 financial instruments only.

The approach for determining the key line items in the tables is set out below.

→ **Transfers** - transfers between stages are deemed to occur at the beginning of a month based on prior month closing balances

→ **Net remeasurement from stage changes** - the remeasurement of credit impairment provisions arising from a change in stage is reported within the stage that the assets are transferred to. For example, assets transferred into stage 2 are remeasured from a 12 month to a lifetime expected credit loss, with the effect of remeasurement reported in stage 2. For stage 3, this represents the initial remeasurement from specific provisions recognised on individual assets transferred into stage 3 in the year

→ **Net changes in exposures -** new business written less repayments in the year. Within stage 1, new business written will attract up to 12 months of expected credit loss charges. Repayments of non-amortising loans (primarily within Corporate & Institutional Banking and Commercial Banking) will have low amounts of expected credit loss provisions attributed to them, due to the release of provisions over the term to maturity. In stages 2 and 3, the amounts principally reflect repayments although stage 2 may include new business written where clients are on non-purely precautionary early alert, are a credit grade 12, or when non-investment grade debt securities are acquired.

→ **Changes in risk parameters -** for stages 1 and 2, this reflects changes in the probability of default (PD), loss given default (LGD) and exposure at default (EAD) of assets during the year, which includes the impact of releasing provisions over the term to maturity. It also includes the effect of changes in forecasts of macroeconomic variables during the year. In stage 3, this line represents additional specific provisions recognised on exposures held within stage 3

→ **Interest due but not paid –**change in contractual amount of interest due in stage 3 financial instruments but not paid, being the net of accruals, repayments and write-offs, together with the corresponding change in credit impairment

Changes to ECL models, which incorporates changes to model approaches and methodologies, is not reported as a separate line item as it has an impact over a number of lines and stages.

Movements during the year (Continuing operations)

Stage 1 gross exposures increased by $18.3 billion, or 5 per cent, from 1 January 2019 largely reflecting the impact of new business booked offset by a net transfers out to stage 2. The increase was largely due to higher holdings of debt securities (up $16.0 billion). This was partly offset by a reduction in Corporate & Institutional Banking due to a net outflow to stage 2. 2018 benefitted from a number of upgrades out of stage 2 as non-purely precautionary early alert balances decreased whereas these balances were more stable in 2019. Retail Banking stage 1 gross exposures were broadly flat, while stage 1 transfers to stage 2 and transfers to stage 3 reduced compared to 2018 following the rundown of higher risk unsecured lending portfolios.

Despite the increase in exposures, total stage 1 provisions fell $18 million, largely due to improvements in portfolio quality In Corporate & Institutional Banking.

Stage 2 gross exposures fell by $5.7 billion, or 17 per cent, primarily driven by debt securities which fell $2.3 billion, as securities transferred back to stage 1 (primarily due to the change in approach for stage allocations) or were repaid. In Corporate & Institutional Banking, stage 2 exposures increased due to higher levels of non-purely precautionary early alerts. This was offset by lower levels of Retail Banking exposures largely due to repayments.

Consequently, stage 2 provisions were down $65 million compared to 2018, $7 million of which was due to the reduction in debt securities. Corporate & Institutional Banking provisions fell as the impact of deteriorating macroeconomic forecasts was offset by transfers to stage 3, with 'Higher risk' balances increasing slightly primarily due to the sovereign downgrades in Zambia, Zimbabwe and Lebanon. Retail Banking increased primarily due to the impact of deteriorating macroeconomic forecasts and payroll-related exposures in the Africa & Middle East region. This was offset by lower Commercial Banking provisions as portfolio quality improved following a reduction in 'Higher risk' balances.

Across both stage 1 and 2 for all segments, changes to macroeconomic forecasts increased provisions by $36 million. There were no material impacts from model changes in 2019 or 2018.

Stage 3 exposures fell by $1.2 billion from $8.6 billion at 1 January 2019 to $7.4 billion at 31 December 2019, primarily due to a write-off in debt securities and repayments, write-offs and transfers to stage 2 within Corporate & Institutional Banking and Commercial Banking. This was also reflected in lower stage 3 provisions, which fell from $5.8 billion at 1 January 2019 to $4.9 billion at 31 December 2019.

All segments - Group

Amortised cost and FVOCI	Stage 1 Gross balance $million	Stage 1 Total credit impairment $million	Stage 1 Net $million	Stage 2 Gross balance $million	Stage 2 Total credit impairment $million	Stage 2 Net $million	Stage 3 Gross balance $million	Stage 3 Total credit impairment $million	Stage 3 Net $million	Total Gross balance $million	Total Total credit impairment $million	Total Net $million
As at 1 January 2018[3]	565,804	(576)	565,228	52,387	(742)	51,645	11,332	(7,710)	3,622	629,523	(9,028)	620,495
Transfers to stage 1	59,776	(627)	59,149	(59,776)	627	(59,149)	-	-	-	-	-	-
Transfers to stage 2	(73,589)	136	(73,453)	73,809	(136)	73,673	(220)	-	(220)	-	-	-
Transfers to stage 3	(293)	7	(286)	(2,338)	264	(2,074)	2,631	(271)	2,360	-	-	-
Net change in exposures	50,256	(282)	49,974	(20,314)	94	(20,220)	(1,836)	527	(1,309)	28,106	339	28,445
Net remeasurement from stage changes	-	139	139	-	(136)	(136)	-	(529)	(529)	-	(526)	(526)
Changes in risk parameters	-	468	468	-	(275)	(275)	-	(971)	(971)	-	(778)	(778)
Write-offs	-	-	-	-	-	-	(2,075)	2,075	-	(2,075)	2,075	-
Interest due but unpaid[4]	-	-	-	-	-	-	(338)	338	-	(338)	338	-
Discount unwind	-	-	-	-	-	-	-	80	80	-	80	80
Exchange translation differences and other movements[1]	(9,470)	204	(9,266)	(1,445)	(196)	(1,641)	(111)	246	135	(11,026)	254	(10,772)
As at 31 December 2018[2]	592,484	(531)	591,953	42,323	(500)	41,823	9,383	(6,215)	3,168	644,190	(7,246)	636,944
Income statement ECL (charge)/release		325			(317)			(973)			(965)	
Recoveries of amounts previously written off								312			312	
Total credit impairment (charge)/release		325			(317)			(661)			(653)	
As at 1 January 2019	**592,484**	**(531)**	**591,953**	**42,323**	**(500)**	**41,823**	**9,383**	**(6,215)**	**3,168**	**644,190**	**(7,246)**	**636,944**
Discontinued operations	(245,989)	181	**(245,808)**	(7,997)	90	**(7,907)**	(827)	376	**(451)**	(254,813)	647	**(254,166)**
Continuing operations	**346,495**	**(350)**	**346,145**	**34,326**	**(410)**	**33,916**	**8,556**	**(5,839)**	**2,717**	**389,377**	**(6,599)**	**382,778**
Transfers to stage 1	19,923	(370)	**19,553**	(19,923)	370	**(19,553)**	-	-	**-**	-	-	**-**
Transfers to stage 2	(46,584)	103	**(46,481)**	46,777	(117)	**46,660**	(193)	14	**(179)**	-	-	**-**
Transfers to stage 3	(69)	-	**(69)**	(1,826)	225	**(1,601)**	1,895	(225)	**1,670**	-	-	**-**
Net change in exposures	44,703	(188)	**44,515**	(30,550)	(5)	**(30,555)**	(1,172)	255	**(917)**	12,981	62	**13,043**
Net remeasurement from stage changes	-	128	**128**	-	(143)	**(143)**	-	(329)	**(329)**	-	(344)	**(344)**
Changes in risk parameters	-	287	**287**	-	(213)	**(213)**	-	(628)	**(628)**	-	(554)	**(554)**
Write-offs	-	-	**-**	-	-	**-**	(1,515)	1,515	**-**	(1,515)	1,515	**-**
Interest due but unpaid	-	-	**-**	-	-	**-**	(354)	354	**-**	(354)	354	**-**
Discount unwind	-	-	**-**	-	-	**-**	-	77	**77**	-	77	**77**
Exchange translation differences and other movements[1]	301	58	**359**	(165)	(52)	**(217)**	134	(77)	**57**	270	(71)	**199**
As at 31 December 2019[2]	**364,769**	**(332)**	**364,437**	**28,639**	**(345)**	**28,294**	**7,351**	**(4,883)**	**2,468**	**400,759**	**(5,560)**	**395,199**
Income statement ECL (charge)/release[5]		227			(361)			(702)			(836)	
Recoveries of amounts previously written off								145			145	
Total credit impairment (charge)/release		**227**			**(361)**			**(557)**			**(691)**	

1 Includes fair value adjustments and amortisation on debt securities

2 Excludes Cash and balances at central banks, Accrued income, Assets held for sale and Other assets

3 Stage 3 balances at 1 January 2018 have been restated to reflect contractual interest due but unpaid together with equivalent credit impairment charges

4 Interest due but unpaid included in gross assets and credit impairment

5 Does not include $6 million provision relatiing to Other assets

of which - Movement of debt securities - Group	Stage 1			Stage 2			Stage 3			Total		
Amortised cost and FVOCI	Gross balance $million	Total credit impairment $million	Net $million	Gross balance $million	Total credit impairment $million	Net $million	Gross balance $million	Total credit impairment $million	Net $million	Gross balance $million	Total credit impairment $million	Net $million
As at 1 January 2018[2]	107,309	(25)	107,284	8,305	(57)	8,248	455	(447)	8	116,069	(529)	115,540
Transfers to stage 1	561	(18)	543	(561)	18	(543)	-	-	-	-	-	-
Transfers to stage 2	(10,626)	1	(10,625)	10,626	(1)	10,625	-	-	-	-	-	-
Transfers to stage 3	-	-	-	(36)	-	(36)	36	-	36	-	-	-
Net change in exposures	23,232	(19)	23,213	(10,826)	(7)	(10,833)	(7)	7	-	12,399	(19)	12,380
Net remeasurement from stage changes	-	5	5	-	-	-	-	(20)	(20)	-	(15)	(15)
Changes in risk parameters	-	24	24	-	4	4	-	-	-	-	28	28
Write-offs	-	-	-	-	-	-	-	-	-	-	-	-
Interest due but unpaid[3]	-	-	-	-	-	-	32	(32)	-	32	(32)	-
Discount unwind	-	-	-	-	-	-	-	-	-	-	-	-
Exchange translation differences and other movements[1]	(1,761)	5	(1,756)	(600)	12	(588)	(18)	19	1	(2,379)	36	(2,343)
As at 31 December 2018	118,715	(27)	118,688	6,908	(31)	6,877	498	(473)	25	126,121	(531)	125,590
Income statement ECL (charge)/release		10			(3)			(13)			(6)	
Recoveries of amounts previously written off								-			-	
Total credit impairment (charge)/release		10			(3)			(13)			(6)	
As at 1 January 2019	**118,715**	**(27)**	**118,688**	**6,908**	**(31)**	**6,877**	**498**	**(473)**	**25**	**126,121**	**(531)**	**125,590**
Discontinued operations	(50,088)	3	**(50,085)**	(34)	1	**(33)**	-	-	-	(50,122)	4	**(50,118)**
Continuing operations	**68,627**	**(24)**	**68,603**	**6,874**	**(30)**	**6,844**	**498**	**(473)**	**25**	**75,999**	**(527)**	**75,472**
Transfers to stage 1	2,572	(38)	**2,534**	(2,572)	38	**(2,534)**	-	-	-	-	-	-
Transfers to stage 2	(2,182)	16	**(2,166)**	2,182	(16)	**2,166**	-	-	-	-	-	-
Transfers to stage 3	-	-	-	(1)	-	**(1)**	1	-	**1**	-	-	-
Net change in exposures	15,124	(42)	**15,082**	(1,238)	(10)	**(1,248)**	-	-	-	13,886	(52)	**13,834**
Net remeasurement from stage changes	-	22	**22**	-	(3)	**(3)**	-	-	-	-	19	**19**
Changes in risk parameters	-	24	**24**	-	(6)	**(6)**	-	7	**7**	-	25	**25**
Write-offs	-	-	-	-	-	-	(170)	170	-	(170)	170	-
Interest due but unpaid[3]	-	-	-	-	-	-	(246)	246	-	(246)	246	-
Discount unwind	-	-	-	-	-	-	-	-	-	-	-	-
Exchange translation differences and other movements[1]	468	(5)	**463**	(638)	4	**(634)**	(8)	5	**(3)**	(178)	4	**(174)**
As at 31 December 2019	**84,609**	**(47)**	**84,562**	**4,607**	**(23)**	**4,584**	**75**	**(45)**	**30**	**89,291**	**(115)**	**89,176**
Income statement ECL (charge)/release		4			(19)			7			(8)	
Recoveries of amounts previously written off								-			-	
Total credit impairment (charge)/release		**4**			**(19)**			**7**			**(8)**	

1 Includes fair value adjustments and amortisation on debt securities

2 Stage 3 balances at 1 January 2018 have been restated to reflect contractual interest due but unpaid together with equivalent credit impairment charges

3 Interest due but unpaid included in gross assets and credit impairment

All segments - Company

Amortised cost and FVOCI	Stage 1 Gross balance $million	Stage 1 Total credit impairment $million	Stage 1 Net $million	Stage 2 Gross balance $million	Stage 2 Total credit impairment $million	Stage 2 Net $million	Stage 3 Gross balance $million	Stage 3 Total credit impairment $million	Stage 3 Net $million	Total Gross balance $million	Total Total credit impairment $million	Total Net $million
As at 1 January 2018[3]	284,207	(226)	283,981	27,864	(435)	27,429	7,911	(5,562)	2,349	319,982	(6,223)	313,759
Transfers to stage 1	36,512	(258)	36,254	(36,512)	258	(36,254)	-	-	-	-	-	-
Transfers to stage 2	(39,385)	58	(39,327)	39,504	(58)	39,446	(119)	-	(119)	-	-	-
Transfers to stage 3	(579)	4	(575)	(1,008)	115	(893)	1,587	(119)	1,468	-	-	-
Net change in exposures	20,354	(127)	20,227	(6,672)	47	(6,625)	(1,088)	342	(746)	12,594	262	12,856
Net remeasurement from stage changes	-	66	66	-	(63)	(63)	-	(400)	(400)	-	(397)	(397)
Changes in risk parameters	-	59	59	-	(2)	(2)	-	(592)	(592)	-	(535)	(535)
Write-offs	-	-	-	-	-	-	(1,437)	1,437	-	(1,437)	1,437	-
Interest due but unpaid[4]	-	-	-	-	-	-	(185)	185	-	(185)	185	-
Discount unwind	-	-	-	-	-	-	-	56	56	-	56	56
Exchange translation differences and other movements[1]	(39,833)	218	(39,615)	(4,084)	(109)	(4,193)	(49)	161	112	(43,966)	270	(43,696)
As at 31 December 2018[2]	261,276	(206)	261,070	19,092	(247)	18,845	6,620	(4,492)	2,128	286,988	(4,945)	282,043
Income statement ECL (charge)/release		(2)			(18)			(650)			(670)	
Recoveries of amounts previously written off								128			128	
Total credit impairment (charge)/release		(2)			(18)			(522)			(542)	
As at 1 January 2019	**261,276**	**(206)**	**261,070**	**19,092**	**(247)**	**18,845**	**6,620**	**(4,492)**	**2,128**	**286,988**	**(4,945)**	**282,043**
Transfers to stage 1	12,650	(170)	**12,480**	(12,650)	170	**(12,480)**	-	-	**-**	-	-	**-**
Transfers to stage 2	(31,782)	48	**(31,734)**	31,950	(60)	**31,890**	(168)	12	**(156)**	-	-	**-**
Transfers to stage 3	(37)	-	**(37)**	(1,351)	167	**(1,184)**	1,388	(167)	**1,221**	-	-	**-**
Net change in exposures	26,559	(90)	**26,469**	(21,825)	(22)	**(21,847)**	(829)	222	**(607)**	3,905	110	**4,015**
Net remeasurement from stage changes	-	70	**70**	-	(78)	**(78)**	-	(236)	**(236)**	-	(244)	**(244)**
Changes in risk parameters	-	155	**155**	-	(112)	**(112)**	-	(415)	**(415)**	-	(372)	**(372)**
Write-offs	-	-	**-**	-	-	**-**	(1,035)	1,035	**-**	(1,035)	1,035	**-**
Interest due but unpaid	-	-	**-**	-	-	**-**	(151)	151	**-**	(151)	151	**-**
Discount unwind	-	-	**-**	-	-	**-**	-	47	**47**	-	47	**47**
Exchange translation differences and other movements[1]	(23,316)	17	**(23,299)**	1,677	1	**1,678**	13	(81)	**(68)**	(21,626)	(63)	**(21,689)**
As at 31 December 2019[2]	**245,350**	**(176)**	**245,174**	**16,893**	**(181)**	**16,712**	**5,838**	**(3,924)**	**1,914**	**268,081**	**(4,281)**	**263,800**
Income statement ECL (charge)/release		135			(212)			(429)			(506)	
Recoveries of amounts previously written off								55			55	
Total credit impairment (charge)/release		**135**			**(212)**			**(374)**			**(451)**	

1 Includes fair value adjustments and amortisation on debt securities

2 Excludes Cash and balances at central banks, Accrued income, Assets held for sale and Other assets

3 Stage 3 balances at 1 January 2018 have been restated to reflect contractual interest due but unpaid together with equivalent credit impairment charges

4 Interest due but unpaid included in gross assets and credit impairment

Risk profile

Of which Movement of debt securities - Company

Amortised cost and FVOCI	Stage 1 Gross balance $million	Stage 1 Total credit impairment $million	Stage 1 Net $million	Stage 2 Gross balance $million	Stage 2 Total credit impairment $million	Stage 2 Net $million	Stage 3 Gross balance $million	Stage 3 Total credit impairment $million	Stage 3 Net $million	Total Gross balance $million	Total Total credit impairment $million	Total Net $million
As at 1 January 2018[2]	56,672	(19)	56,653	2,238	(24)	2,214	5	(5)	-	58,915	(48)	58,867
Transfers to stage 1	521	(15)	506	(521)	15	(506)	-	-	-	-	-	-
Transfers to stage 2	(1,059)	1	(1,058)	1,059	(1)	1,058	-	-	-	-	-	-
Transfers to stage 3	-	-	-	(36)	4	(32)	36	(4)	32	-	-	-
Net change in exposures	9,870	(12)	9,858	(590)	(5)	(595)	-	-	-	9,280	(17)	9,263
Net remeasurement from stage changes	-	4	4	-	-	-	-	(16)	(16)	-	(12)	(12)
Changes in risk parameters	-	12	12	-	3	3	-	3	3	-	18	18
Write-offs	-	-	-	-	-	-	-	-	-	-	-	-
Interest due but unpaid[3]	-	-	-	-	-	-	-	-	-	-	-	-
Discount unwind	-	-	-	-	-	-	-	-	-	-	-	-
Exchange translation differences and other movements[1]	(4,168)	9	(4,159)	(172)	5	(167)	(41)	22	(19)	(4,381)	36	(4,345)
As at 31 December 2018	61,836	(20)	61,816	1,978	(3)	1,975	-	-	-	63,814	(23)	63,791
Income statement ECL (charge)/release		4			(2)			(13)			(11)	
Recoveries of amounts previously written off								-			-	
Total credit impairment (charge)/release		4			(2)			(13)			(11)	
of which: 6 months ended at 30 June 2018		-			-			-			-	
of which: 6 months ended at 31 December 2018		-			-			-			-	
As at 1 January 2019	**61,836**	**(20)**	**61,816**	**1,978**	**(3)**	**1,975**	**-**	**-**	**-**	**63,814**	**(23)**	**63,791**
Transfers to stage 1	584	(5)	**579**	(584)	5	**(579)**	-	-	**-**	-	-	**-**
Transfers to stage 2	(87)	3	**(84)**	87	(3)	**84**	-	-	**-**	-	-	**-**
Transfers to stage 3	-	-	**-**	(36)	20	**(16)**	36	(20)	**16**	-	-	**-**
Net change in exposures	7,980	(25)	**7,955**	(406)	(1)	**(407)**	-	-	**-**	7,574	(26)	**7,548**
Net remeasurement from stage changes	-	21	**21**	-	(3)	**(3)**	-	-	**-**	-	18	**18**
Changes in risk parameters	-	1	**1**	-	1	**1**	-	6	**6**	-	8	**8**
Write-offs	-	-	**-**	-	-	**-**	-	-	**-**	-	-	**-**
Interest due but unpaid[3]	-	-	**-**	-	-	**-**	5	(5)	**-**	5	(5)	**-**
Discount unwind	-	-	**-**	-	-	**-**	-	-	**-**	-	-	**-**
Exchange translation differences and other movements[1]	202	(4)	**198**	78	(21)	**57**	2	2	**4**	282	(23)	**259**
As at 31 December 2019	**70,515**	**(29)**	**70,486**	**1,117**	**(5)**	**1,112**	**43**	**(17)**	**26**	**71,675**	**(51)**	**71,624**
Income statement ECL (charge)/release		(3)			(3)			6			-	
Recoveries of amounts previously written off								-			-	
Total credit impairment (charge)/release		**(3)**			**(3)**			**6**			**-**	

1 Includes fair value adjustments and amortisation on debt securities

2 Stage 3 balances at 1 January 2018 have been restated to reflect contractual interest due but unpaid together with equivalent credit impairment charges

3 Interest due but unpaid included in gross assets and credit impairment

Risk profile

Credit impairment charge

	2019[1] $million	2018 $million
Ongoing business portfolio		
Corporate & Institutional Banking	456	242
Retail Banking	175	267
Commercial Banking	95	244
Private Banking	(34)	-
Central & other items	5	(13)
Credit impairment charge	697	740 [2]
Restructuring business portfolio		
Liquidation portfolio	-	(79)
Others	2	(8)
Credit impairment charge	2	(87)
Total credit impairment charge	699	653 [2]

1 In 2019 the Liquidation Portfolio has been included in ongoing business. Prior periods have not been restated.

2 Prior period not restated. Underlying credit impairment from continuing operations is $659m and total credit impairment from continuing operations is $587 million.

Problem credit management and provisioning

Forborne and other modified loans by client segment

A forborne loan arises when a concession has been made to the contractual terms of a loan in response to a customer's financial difficulties.

The table below presents loans with forbearance measures by segment.

Group

	2019				
Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
All loans with forbearance measures	1,487	162	601	-	2,250
Credit impairment (stage 1 and 2)	(11)	-	(4)	-	(15)
Credit impairment (stage 3)	(743)	(106)	(468)	-	(1,317)
Net carrying value	733	56	129	-	918
Included within the above table					
Gross performing forborne loans	389	10	32	-	431
Modification of terms and conditions[1]	389	10	27	-	426
Refinancing[2]	-	-	5	-	5
Impairment provisions	(11)	-	(4)	-	(15)
Modification of terms and conditions[1]	(11)	-	(4)	-	(15)
Refinancing[2]	-	-	-	-	-
Net performing forborne loans	378	10	28	-	416
Collateral	62	10	9	-	81
Gross non-performing forborne loans	1,098	152	569	-	1,819
Modification of terms and conditions[1]	1,057	152	553	-	1,762
Refinancing[2]	41	-	16	-	57
Impairment provisions	(743)	(106)	(468)	-	(1,317)
Modification of terms and conditions[1]	(712)	(106)	(455)	-	(1,273)
Refinancing[2]	(31)	-	(13)	-	(44)
Net non-performing forborne loans	355	46	101	-	502
Collateral	187	46	66	-	299

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
	2018				
All loans with forbearance measures	1,445	376	709	-	2,530
Credit impairment (stage 1 and 2)[3]	-	-	-	-	-
Credit impairment (stage 3)	(517)	(174)	(427)	-	(1,118)
Net carrying value	928	202	282	-	1,412
Included within the above table					
Gross performing forborne loans	286	23	71	-	380
Modification of terms and conditions[1]	273	23	64	-	360
Refinancing[2]	13	-	7	-	20
Impairment provisions	-	-	-	-	-
Modification of terms and conditions[1]	-	-	-	-	-
Refinancing[2]	-	-	-	-	-
Net stage 3 forborne loans	286	23	71	-	380
Collateral	16	23	28	-	67
Gross stage 3 forborne loans	1,159	353	638	-	2,150
Modification of terms and conditions[1]	1,093	353	610	-	2,056
Refinancing[2]	66	-	28	-	94
Impairment provisions	(517)	(174)	(427)	-	(1,118)
Modification of terms and conditions[1]	(489)	(174)	(409)	-	(1,072)
Refinancing[2]	(28)	-	(18)	-	(46)
Net stage 3 forborne loans	642	179	211	-	1,032
Collateral	225	163	107	-	495

1 Modification of terms is any contractual change apart from refinancing, as a result of credit stress of the counterparty, i.e. interest reductions, loan covenant waivers

2 Refinancing is a new contract to a lender in credit stress, such that they are refinanced and can pay other debt contracts that they were unable to honour

3 Credit impairment (stage 1 and 2) line added for completeness

Company

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
	2019				
All loans with forbearance measures	1,202	11	320	-	1,533
Credit impairment (stage 1 and 2)	(7)	-	(2)	-	(9)
Credit impairment (stage 3)	(638)	(5)	(257)	-	(900)
Net carrying value	557	6	61	-	624
Included within the above table					
Gross performing forborne loans	228	4	13	-	245
Modification of terms and conditions[1]	228	4	8	-	240
Refinancing[2]	-	-	5	-	5
Impairment provisions	(7)	-	(2)	-	(9)
Modification of terms and conditions[1]	(7)	-	(2)	-	(9)
Refinancing[2]	-	-	-	-	-
Net stage 3 forborne loans	221	4	11	-	236
Collateral	45	2	-	-	47
Gross stage 3 forborne loans	974	7	307	-	1,288
Modification of terms and conditions[1]	933	7	297	-	1,237
Refinancing[2]	41	-	10	-	51
Impairment provisions	(638)	(5)	(257)	-	(900)
Modification of terms and conditions[1]	(607)	(5)	(247)	-	(859)
Refinancing[2]	(31)	-	(10)	-	(41)
Net stage 3 forborne loans	336	2	50	-	388
Collateral	172	3	30	-	205

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
	2018				
All loans with forbearance measures	1,109	-	284	-	1,393
Credit impairment (stage 1 and 2)[3]	-	-	-	-	-
Credit impairment (stage 3)	(482)	-	(200)	-	(682)
Net carrying value	627	-	84	-	711
Included within the above table					
Gross performing forborne loans	150	-	31	-	181
Modification of terms and conditions[1]	137	-	24	-	161
Refinancing[2]	13	-	7	-	20
Impairment provisions	-	-	-	-	-
Modification of terms and conditions[1]	-	-	-	-	-
Refinancing[2]	-	-	-	-	-
Net stage 3 forborne loans	150	-	31	-	181
Collateral	5	-	1	-	6
Gross stage 3 forborne loans	959	-	253	-	1,212
Modification of terms and conditions[1]	907	-	243	-	1,150
Refinancing[2]	52	-	10	-	62
Impairment provisions	(482)	-	(200)	-	(682)
Modification of terms and conditions[1]	(461)	-	(190)	-	(651)
Refinancing[2]	(21)	-	(10)	-	(31)
Net stage 3 forborne loans	477	-	53	-	530
Collateral	154	-	15	-	169

1 Modification of terms is any contractual change apart from refinancing, as a result of credit stress of the counterparty, i.e. interest reductions, loan covenant waivers

2 Refinancing is a new contract to a lender in credit stress, such that they are refinanced and can pay other debt contracts that they were unable to honour

3 Credit impairment (stage 1 and 2) line added for completeness

Credit-impaired (stage 3) loans and advances by client segment

With effect from 1 January 2019, the liquidation portfolio has been included within the underlying portfolio. Prior periods have not been restated.

Gross stage 3 loans and stage 3 provisions on loans and advances have been restated to include the impact of interest in suspense of $1.5 billion in 2018.

Stage 3 loans and advances to customers fell by $1.8 billion, or 21 per cent, to $6.7 billion compared with 31 December 2018, with overall stage 3 provisions declining by $1.0 billion to $4.6 billion. The stage 3 cover ratio (excluding collateral) increased 3 per cent to 69 per cent, largely in Corporate & Institutional Banking from repayments, new provisions and upgrades to stage 2

The inflows of stage 3 loans in Corporate & Institutional Banking are 11 per cent lower at $0.7 billion. The new inflows in 2019 were mainly in ASEAN & South Asia.

Stage 3 inflows in Commercial Banking reduced by 48 per cent to $0.3 billion from $0.6 billion in 2018. Excluding the GCNA hub, inflows increased in ASEAN & South Asia offset by reductions in Africa & Middle East.

Retail stage 3 loans were lower by $0.3 billion at $0.5 billion which is mainly due to the transfer of loans to the GCNA hub.

Private Banking stage 3 loans marginally increased by $68m in ASEAN & South Asia and Europe & Americas regions to $0.4 billion.

Stage 3 cover ratio

The stage 3 cover ratio measures the proportion of stage 3 impairment provisions to gross stage 3 loans, and is a metric commonly used in considering impairment trends. This metric does not allow for variations in the composition of stage 3 loans and should be used in conjunction with other credit risk information provided, including the level of collateral cover.

The balance of stage 3 loans not covered by stage 3 impairment provisions represents the adjusted value of collateral held and the net outcome of any workout or recovery strategies.

Collateral provides risk mitigation to some degree in all client segments and supports the credit quality and cover ratio assessments post impairment provisions. Further information on collateral is provided in the credit risk mitigation section.

Corporate & Institutional Banking cover ratio increased to 72 per cent from 65 per cent due to repayments, increased provisions and upgrades to stage 2. Commercial Banking cover ratio remained stable at 77 per cent.

Private Banking cover ratio reduced to 40 per cent from 55 per cent in 2018 due to a small increase in stage 3 loans in ASEAN & South Asia and Europe & Americas region and a reduction in provisions due to a material release on a stage 3.

Risk profile

Retail cover ratio decreased to 45 per cent from 48 per cent in December 2018 due to increase of Mortgage portfolio. Cover ratio after collateral reduced by 1 per cent to 86%.

Group

	2019[1]				
Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
Gross credit-impaired	4,087	549	1,671	366	6,673
Credit impairment provisions	(2,950)	(248)	(1,287)	(147)	(4,632)
Net credit-impaired	1,137	301	384	219	2,041
Cover ratio	72%	45%	77%	40%	69%
Collateral ($ million)	482	226	196	211	1,115
Cover ratio (after collateral)	84%	86%	89%	98%	86%

1 The remaining portfolio of loans and advances to customers previously separately identified in the liquidation portfolio are now included in the ongoing

	2018				
Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
Gross credit-impaired [1]	4,996	832	2,329	298	8,455
Credit impairment provisions [1]	(3,238)	(396)	(1,789)	(163)	(5,586)
Net credit-impaired	1,758	436	540	135	2,869
Cover ratio[1]	65%	48%	77%	55%	66%
Collateral ($ million)	802	324	302	135	1,563
Cover ratio (after collateral)[1]	81%	87%	90%	100%	85%
Of the above, included in the liquidation portfolio:					
Gross credit-impaired[1]	1,337	-	130	216	1,683
Credit impairment provisions[1]	(1,088)	-	(130)	(152)	(1,370)
Net credit-impaired	249	-	-	64	313
Cover ratio[1]	81%	0%	100%	70%	81%
Collateral ($million)	159	-	-	64	223
Cover ratio (after collateral)[1]	93%	0%	100%	100%	95%

1 Balances have been restated to reflect interest due but unpaid together with equivalent credit impairment charges. The cover ratios have been restated as a result

Company

	2019[1]				
Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
Gross credit-impaired	3,540	202	1,124	345	5,211
Credit impairment provisions	(2,592)	(98)	(872)	(144)	(3,706)
Net credit-impaired	948	104	252	201	1,505
Cover ratio	73%	49%	78%	42%	71%
Collateral ($ million)	390	78	112	195	775
Cover ratio (after collateral)	84%	87%	88%	98%	86%

1 The remaining portfolio of loans and advances to customers previously separately identified in the liquidation portfolio are now included in the ongoing

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
	2018				
Gross credit-impaired [1]	4,378	175	1,356	296	6,205
Credit impairment provisions [1]	(2,943)	(91)	(1,140)	(162)	(4,336)
Net credit-impaired	1,435	84	216	134	1,869
Cover ratio[1]	67%	52%	84%	55%	70%
Collateral ($ million)	560	84	66	64	774
Cover ratio (after collateral)[1]	80%	100%	89%	76%	82%
Of the above, included in the liquidation portfolio:					
Gross credit-impaired[1]	997	-	33	157	1,187
Credit impairment provisions[1]	(763)	-	(33)	(93)	(889)
Net credit-impaired	234	-	-	64	298
Cover ratio[1]	77%	0%	100%	59%	75%
Collateral ($million)	147	-	-	64	211
Cover ratio (after collateral)[1]	91%	0%	100%	100%	93%

1 Balances have been restated to reflect interest due but unpaid together with equivalent credit impairment charges. The cover ratios have been restated as a result

Movement of credit-impaired (stage 3) loans and advances provisions by client segment

Credit impairment provisions as at 31 December 2019 were $4,632 million, compared with $5,586 million at 31 December 2018 ($5,213 million relating to continuing operations). The decrease was largely due to write-offs in Corporate & Institutional Banking and Commercial Banking. Private Banking provisions fell by $16 million primarily due to a net provision release for a single client.

The following table shows the movement of credit-impaired (stage 3) provisions for each client segment.

Group

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total[2] $million
	2019				
Gross credit-impaired loans at 31 December	4,087	549	1,671	366	6,673
Credit impairment allowances at 1 January	3,238	396	1,789	163	5,586
Less: Discontinued Operations	(38)	(120)	(215)	-	(373)
Continuing Operations	3,200	276	1,574	163	5,213
Net transfers into and out of stage 3	108	87	16	-	211
New provisions charge/(release)[1]	170	42	73	-	285
Changes due to risk parameters [1]	315	223	87	(26)	599
Recoveries/derecognition (repayment)[1]	(156)	-	(59)	(6)	(221)
Amounts written off	(631)	(361)	(351)	(2)	(1,345)
Interest due but unpaid	(45)	-	(79)	17	(107)
Discount unwind	(37)	(25)	(11)	(4)	(77)
Exchange translation difference	26	6	37	5	74
Credit impairment allowances at 31 December	2,950	248	1,287	147	4,632
Net carrying value	1,137	301	384	219	2,041
Income Statement charge / (release)[1]	330	265	101	(32)	664
Recoveries of amounts previously written off		(145)			(145)
Total Income statement charge	330	120	101	(32)	519

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total[2] $million
	2018				
Gross credit-impaired loans at 31 December[3]	4,996	832	2,329	298	8,455
Credit impairment allowances at 1 January [3]	4,524	389	2,118	154	7,185
Net transfers into and out of stage 3	85	172	14	-	271
New provisions charge/(release)[1]	189	12	218	3	422
Changes due to risk parameters [1]	400	402	162	13	977
Recoveries/derecognition (repayment)[1]	(379)	-	(136)	(5)	(520)
Amounts written off	(1,179)	(575)	(291)	-	(2,045)
Interest due but unpaid[3]	(175)	-	(194)	-	(369)
Discount unwind	(39)	(20)	(16)	(5)	(80)
Exchange translation difference	(188)	16	(86)	3	(255)
Credit impairment allowances at 31 December	3,238	396	1,789	163	5,586
Net carrying value	1,758	436	540	135	2,869
Income statement charge / (release)[1]	210	414	244	11	879
Recoveries of amounts previously written off	(77)	(214)	(21)	-	(312)
Total income statement charge	133	200	223	11	567

1 Components of the income statement charge/(release)

2 Excludes credit impairment relating to loan commitments and financial guarantees

3 Stage 3 balances at 1 January 2018 have been restated to reflect contractual interest due but unpaid together with equivalent credit impairment charges

Company

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total[2] $million
	2019				
Gross credit-impaired loans at 31 December	3,540	202	1,124	345	5,211
Credit impairment allowances at 1 January	2,943	91	1,140	162	4,336
Net transfers into and out of stage 3	78	48	9	-	135
New provisions charge/(release)[1]	111	23	60	-	194
Changes due to risk parameters [1]	260	106	45	(26)	385
Net change in exposures[1]	(149)	-	(32)	(6)	(187)
Amounts written off	(609)	(176)	(249)	(2)	(1,036)
Interest due but unpaid	(57)	-	(115)	16	(156)
Discount unwind	(36)	(1)	(6)	(4)	(47)
Exchange translation difference and other movements	51	7	20	4	82
Credit impairment allowances at 31 December	2,592	98	872	144	3,706
Net carrying value	948	104	252	201	1,505
Income Statement charge / (release)[1]	222	128	73	(32)	391
Recoveries of amounts previously written off		(55)			(55)
Total Income statement charge	222	73	73	(32)	336

Amortised cost	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total[2] $million
	2018				
Gross credit-impaired loans at 31 December[3]	4,378	175	1,356	296	6,205
Credit impairment allowances at 1 January [3]	4,009	98	1,255	135	5,497
Net transfers into and out of stage 3	72	36	12	-	120
New provisions charge/(release)[1]	168	-	137	3	308
Changes due to risk parameters [1]	375	107	101	13	596
Recoveries/derecognition (repayment)[1]	(268)	-	(69)	(5)	(342)
Amounts written off	(1,057)	(184)	(167)	-	(1,408)
Interest due but unpaid[3]	(120)	-	(83)	18	(185)
Discount unwind	(38)	(2)	(11)	(5)	(56)
Exchange translation difference	(198)	36	(35)	3	(194)
Credit impairment allowances at 31 December	2,943	91	1,140	162	4,336
Net carrying value	1,435	84	216	134	1,869
Income statement charge / (release)[1]	275	107	169	11	562
Recoveries of amounts previously written off	(73)	(49)	(7)	-	(129)
Total income statement charge	202	58	162	11	433

1 Components of the income statement charge/(release)

2 Excludes credit impairment relating to loan commitments and financial guarantees

3 Stage 3 balances at 1 January 2018 have been restated to reflect contractual interest due but unpaid together with equivalent credit impairment charges

Credit risk mitigation

Potential credit losses from any given account, customer or portfolio are mitigated using a range of tools such as collateral, netting arrangements, credit insurance and credit derivatives, taking into account expected volatility and guarantees. The reliance that can be placed on these mitigants is carefully assessed in light of issues such as legal certainty and enforceability, market valuation correlation and counterparty risk of the guarantor.

Collateral

The requirement for collateral is not a substitute for the ability to repay, which is the primary consideration for any lending decisions.

The collateral values in the table below (which covers loans and advances to banks and customers, excluding those held at fair value through profit or loss) are adjusted where appropriate in accordance with our risk mitigation policy and for the effect of over-collateralisation. The extent of over-collateralisation has been determined with reference to both the drawn and undrawn components of exposure as this best reflects the effect of collateral and other credit enhancements on the amounts arising from expected credit losses.

We have remained prudent in the way we assess the value of collateral, which is calibrated for a severe downturn and backtested against our prior experience. On average, across all types of non-cash collateral, the value ascribed is approximately half of its current market value.

In the Retail Banking and Private Banking segments, a secured loan is one where the borrower pledges an asset as collateral of which the Group is able to take possession in the event that the borrower defaults. Total collateral for Retail Banking increased by $0.2 billion after excluding the impact of $59 billion of collateral relating to the GCNA hub.

Private Banking collateral at $6.5 billion is broadly stable year on year after excluding the impact of $3.8billion relating to the GCNA hub

Collateral held on loans and advances

The table below details collateral held against exposures, separately disclosing stage 2 and stage 3 exposure and corresponding collateral.

Group

	2019								
	Net amount outstanding			Collateral			Net exposure		
Amortised cost	Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million	Total[2] $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million	Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million
Corporate & Institutional Banking[1]	109,587	9,884	1,137	15,802	2,215	482	93,785	7,669	655
Retail Banking	33,756	1,968	301	22,405	1,746	226	11,351	222	75
Commercial Banking	13,761	2,200	384	3,440	824	196	10,321	1,376	188
Private Banking	9,083	283	219	6,484	188	211	2,599	95	8
Central & other items	9,942	7	-	672	-	-	9,270	7	-
Total	176,129	14,342	2,041	48,803	4,973	1,115	127,326	9,369	926

Amortised cost	2018 Net amount outstanding Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million	Collateral Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million	Net exposure Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million
Corporate & Institutional Banking[1]	166,097	10,231	1,758	15,882	1,314	802	150,215	8,917	956
Retail Banking	101,235	2,706	436	74,485	2,092	324	26,750	614	112
Commercial Banking	26,763	4,333	540	6,767	3,966	302	19,996	367	238
Private Banking	13,616	785	135	9,729	783	135	3,887	2	-
Central & other items	10,262	26	-	6,278	-	-	3,984	26	-
Total[2]	317,973	18,081	2,869	113,141	8,155	1,563	204,832	9,926	1,306

1 Includes loans and advances to banks

2 Adjusted for over collateralisation based on the drawn and undrawn components of exposures

Collateral held on loans and advances

The table below details collateral held against exposures, separately disclosing stage 2 and stage 3 exposure and corresponding collateral.

Company

Amortised cost	**2019 Net amount outstanding Total $million**	**Stage 2 financial assets $million**	**Credit-impaired financial assets (S3) $million**	**Collateral Total[2] $million**	**Stage 2 financial assets $million**	**Credit-impaired financial assets (S3) $million**	**Net exposure Total $million**	**Stage 2 financial assets $million**	**Credit-impaired financial assets (S3) $million**
Corporate & Institutional Banking[1]	**76,019**	**6,868**	**948**	**11,632**	**1,741**	**390**	**64,387**	**5,127**	**558**
Retail Banking	**9,774**	**1,009**	**104**	**4,629**	**949**	**78**	**5,145**	**60**	**26**
Commercial Banking	**9,084**	**1,359**	**252**	**2,154**	**517**	**112**	**6,930**	**842**	**140**
Private Banking	**3,582**	**65**	**201**	**2,802**	**51**	**195**	**780**	**14**	**6**
Central & other items	**651**	**-**	**-**	**512**	**-**	**-**	**139**	**-**	**-**
Total	**99,110**	**9,301**	**1,505**	**21,729**	**3,258**	**775**	**77,381**	**6,043**	**730**

Amortised cost	2018 Net amount outstanding Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million	Collateral Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million	Net exposure Total $million	Stage 2 financial assets $million	Credit-impaired financial assets (S3) $million
Corporate & Institutional Banking[1]	76,880	5,002	1,435	9,961	704	560	66,919	4,298	875
Retail Banking	10,015	564	84	4,652	475	84	5,363	89	-
Commercial Banking	9,013	1,680	216	2,026	1,069	66	6,987	611	150
Private Banking	4,029	395	134	3,116	385	64	913	10	70
Central & other items	1,077	27	-	1,022	-	-	55	27	-
Total[2]	101,014	7,668	1,869	20,777	2,633	774	80,237	5,035	1,095

1 Includes loans and advances to banks

2 Adjusted for over collateralisation based on the drawn and undrawn components of exposures

Collateral - Corporate & Institutional Banking and Commercial Banking

Collateral held against Corporate & Institutional Banking and Commercial Banking exposures amounted to $19 billion.

56 per cent of tangible collateral held comprises physical assets or is property based, with the remainder largely in cash and investment securities.

Non-tangible collateral such as guarantees and standby letters of credit is also held against corporate exposures, although the financial effect of this type of collateral is less significant in terms of recoveries. However, this is considered when determining probability of default and other credit-related factors. Collateral is also held against off-balance sheet exposures, including undrawn commitments and trade-related instruments.

The following table provides an analysis of the types of collateral held against Corporate & Institutional Banking and Commercial Banking loan exposures.

Risk profile

Group

Corporate & Institutional Banking

Amortised cost	2019 $million	2018[1] $million
Maximum exposure	**109,587**	166,097
Property	**4,280**	5,556
Plant, machinery and other stock	**1,063**	1,067
Cash	**2,411**	2,019
Reverse repos	**1,244**	528
A- to AA+	**-**	321
BBB- to BBB+	**439**	207
Unrated	**805**	-
Financial guarantees and insurance	**4,763**	3,697
Commodities	**37**	90
Ships and aircraft	**2,004**	2,925
Total value of collateral	**15,802**	15,882
Net exposure[1]	**93,785**	150,215

1 Adjusted for over-collateralisation based on the drawn and undrawn components of exposures

Commercial Banking

Amortised cost	2,019 $million	2018[1] $million
Maximum exposure	**13,761**	26,763
Property	**1,471**	4,557
Plant, machinery and other stock	**1,042**	992
Cash	**342**	486
Reverse repos	**8**	72
A- to AA+	**-**	1
BBB- to BBB+	**1**	71
Unrated	**7**	-
Financial guarantees and insurance	**388**	502
Commodities	**26**	11
Ships and aircraft	**163**	147
Total value of collateral	**3,440**	6,767
Net exposure[1]	**10,321**	19,996

1 Adjusted for over-collateralisation based on the drawn and undrawn component of exposures

Company

Corporate & Institutional Banking

Amortised cost	2019 $million	2018[1] $million
Maximum exposure	**76,019**	76,880
Property	**3,075**	3,145
Plant, machinery and other stock	**581**	798
Cash	**2,131**	912
Reverse repos	**805**	369
A- to AA+	**-**	321
BBB- to BBB+	**-**	48
Unrated	**805**	-
Financial guarantees and insurance	**3,851**	2,655
Commodities	**28**	84
Ships and aircraft	**1,161**	1,998
Total value of collateral	**11,632**	9,961
Net exposure[1]	**64,387**	66,919

1 Adjusted for over-collateralisation based on the drawn and undrawn components of exposures

Risk profile

Commercial Banking

Amortised cost	2,019 $million	2018[1] $million
Maximum exposure	**9,084**	9,013
Property	**873**	713
Plant, machinery and other stock	**716**	704
Cash	**161**	136
Reverse repos	**8**	18
A- to AA+	**-**	1
BBB- to BBB+	**1**	17
Unrated	**7**	-
Financial guarantees and insurance	**316**	314
Commodities	**-**	3
Ships and aircraft	**80**	138
Total value of collateral	**2,154**	2,026
Net exposure[1]	**6,930**	6,987

1 Adjusted for over-collateralisation based on the drawn and undrawn components of exposures

Collateral - Retail Banking and Private Banking

In Retail Banking and Private Banking, 83 per cent of the portfolio is fully secured. The proportion of unsecured loans remains stable at 15 per cent and the remaining 2 per cent is partially secured.

The following table presents an analysis of loans to individuals by product; split between fully secured, partially secured and unsecured:

Group	2019				2018			
Amortised cost	Fully secured $million	Partially secured $million	Unsecured $million	Total $million	Fully secured $million	Partially secured $million	Unsecured $million	Total $million
Maximum exposure	**35,409**	**899**	**6,531**	**42,839**	96,534	1,383	16,934	114,851
Loans to individuals								
Mortgages	**22,507**	**96**	**5**	**22,608**	75,386	191	23	75,600
CCPL[3]	**122**	**8**	**6,459**	**6,589**	168	102	16,692	16,962
Auto	**562**	**-**	**10**	**572**	671	-	2	673
Secured wealth products	**12,117**	**125**	**-**	**12,242**	17,721	107	172	18,000
Other	**101**	**670**	**57**	**828**	2,588	983	45	3,616
Total collateral[1]				**28,889**				84,214
Net exposure[2]				**13,950**				30,637
Percentage of total loans	**83%**	**2%**	**15%**		84%	1%	15%	

1 Collateral values are adjusted where appropriate in accordance with our risk mitigation policy and for the effect of over-collateralisation.

2 Amounts net of ECL

3 Credit Card and Personal Loans (CCPL)

Mortgage loan-to-value ratios by geography

Loan-to-value (LTV) ratios measure the ratio of the current mortgage outstanding to the current fair value of the properties on which they are secured.

In mortgages, the value of property held as security significantly exceeds the value of mortgage loans. The average LTV of the overall mortgage portfolio is low at 53 per cent. Singapore, which represents 60 per cent of the Retail mortgage portfolio as at 31 December 2019 has an average LTV of 53.3 per cent.

An analysis of LTV ratios by geography for the mortgage portfolio is presented in the table below.

	2019				
	Greater China & North Asia	ASEAN & South Asia	Africa & Middle East	Europe & Americas	Total
	%	%	%	%	%
Amortised cost	**Gross**	**Gross**	**Gross**	**Gross**	**Gross**
Less than 50 per cent	-	43.4	21.6	10.8	38.2
50 per cent to 59 per cent	-	19.4	14.2	26.3	19.6
60 per cent to 69 per cent	-	22.5	21.0	29.5	23.1
70 per cent to 79 per cent	-	12.5	19.0	28.0	14.6
80 per cent to 89 per cent	-	1.7	11.5	4.5	2.9
90 per cent to 99 per cent	-	0.3	6.5	0.4	0.9
100 per cent and greater	-	0.2	6.2	0.6	0.8
Average portfolio loan-to-value	-	50.7	66.6	62.2	53.2
Loans to individuals - mortgages ($million)	-	18,301	2,047	2,259	22,607

	2018				
	Greater China & North Asia	ASEAN & South Asia	Africa & Middle East	Europe & Americas	Total
	%	%	%	%	%
Amortised cost	Gross	Gross	Gross	Gross	Gross
Less than 50 per cent	67.7	41.5	20.9	19.6	58.5
50 per cent to 59 per cent	14.9	18.8	15.3	21.0	16.0
60 per cent to 69 per cent	10.7	22.0	21.8	30.2	14.4
70 per cent to 79 per cent	5.0	16.0	21.6	26.8	8.8
80 per cent to 89 per cent	1.3	1.5	12.0	2.4	1.7
90 per cent to 99 per cent	0.3	0.1	4.7	-	0.3
100 per cent and greater	0.1	0.1	3.8	-	0.2
Average portfolio loan-to-value	42.0	51.5	65.2	54.2	44.8
Loans to individuals - mortgages ($million)	52,434	19,156	2,126	1,884	75,600

Collateral and other credit enhancements possessed or called upon

The Group obtains assets by taking possession of collateral or calling upon other credit enhancements (such as guarantees). Repossessed properties are sold in an orderly fashion. Where the proceeds are in excess of the outstanding loan balance the excess is returned to the borrower.

Certain equity securities acquired may be held by the Group for investment purposes and are classified as fair value through other comprehensive income, and the related loan written off.

The carrying value of collateral possessed and held by the Group as at 31 December 2019 is $37.0 million (2018: $18.2 million).

The increase in collateral value is largely due to property and plant taken possession of in Malaysia.

	2019	2018
	$million	$million
Property, plant and equipment	29.0	8.7
Guarantees	5.2	8.6
Cash	2.7	0.6
Other	0.1	0.3
Total	37.0	18.2

Other credit risk mitigation

Other forms of credit risk mitigation are set out below.

Credit default swaps

The Group has entered into credit default swaps for portfolio management purposes, referencing loan assets with a notional value of $14.5 billion (2018: $21 billion). These credit default swaps are accounted for as financial guarantees as per IFRS 9 as they will only reimburse the holder for an incurred loss on an underlying debt instrument. The Group continues to hold the underlying assets referenced in the credit default swaps and it continues to be exposed to related credit and foreign exchange risk on these assets.

Derivative financial instruments

The Group enters into master netting agreements, which in the event of default result in a single amount owed by or to the counterparty through netting the sum of the positive and negative mark-to-market values of applicable derivative transactions. These are set out in more detail under Derivative financial instruments credit risk mitigation (page 91).

Off-balance sheet exposures

For certain types of exposures, such as letters of credit and guarantees, the Group obtains collateral such as cash depending on internal credit risk assessments, as well as in the case of letters of credit holding legal title to the underlying assets should a default take place

Other portfolio analysis

This section provides maturity analysis of loans and advances by business segment

Maturity analysis of loans and advances by client segment

The loans and advances to the Corporate & Institutional Banking and Commercial Banking segments remain predominantly short-term, with 59 per cent of loans and advances to customers in the segments maturing in less than one year (31 December 2018: 61 per cent).

96 per cent of loans to banks are maturing in less than one year (31 December 2018: 96 per cent). Shorter maturity gives us the flexibility to respond promptly to events and rebalance or reduce our exposure to clients or sectors that are facing increased pressure or uncertainty.

The Private Banking loan book also demonstrates a short-term bias, typical for loans that are secured on wealth management assets.

The Retail Banking loan book continues to be longer-term in nature with 61 per cent (31 December 2018: 70 per cent) of the loans maturing over five years as mortgages constitute the majority of this portfolio.

Group

	2019			
	One year or less	One to five years	Over five years	Total
Amortised cost	$million	$million	$million	$million
Corporate & Institutional Banking	42,530	24,341	8,911	75,782
Retail Banking	8,282	5,033	20,942	34,257
Commercial Banking	11,089	3,247	769	15,105
Private Banking	8,290	507	440	9,237
Central & other items	9,943	-	-	9,943
Gross loans and advances to customers	80,134	33,128	31,062	144,324
Impairment provisions	(4,494)	(260)	(389)	(5,143)
Net loans and advances to customers	75,640	32,868	30,673	139,181
Net loans and advances to banks	35,367	1,581	-	36,948

	2018			
	One year or less	One to five years	Over five years	Total
Amortised cost	$million	$million	$million	$million
Corporate & Institutional Banking[1]	61,718	36,164	10,330	108,212
Retail Banking[1]	16,372	14,091	71,600	102,063
Commercial Banking[1]	21,641	5,660	1,364	28,665
Private Banking[1]	12,774	396	618	13,788
Central & other items	10,256	6	-	10,262
Gross loans and advances to customers	122,761	56,317	83,912	262,990
Impairment provisions[1]	(5,859)	(293)	(276)	(6,428)
Net loans and advances to customers	116,902	56,024	83,636	256,562
Net loans and advances to banks	58,781	2,597	33	61,411

1 Stage 3 balances have been restated to reflect interest due but unpaid together with equivalent credit impairment charges

Company

	2019			
	One year or less	One to five years	Over five years	Total
Amortised cost	$million	$million	$million	$million
Corporate & Institutional Banking	27,780	18,555	7,419	53,754
Retail Banking	2,596	2,910	4,268	9,774
Commercial Banking	6,730	2,023	331	9,084
Private Banking	3,071	406	105	3,582
Central & other items	651	-	-	651
Net loans and advances to customers	40,828	23,894	12,123	76,845
Net loans and advances to banks	21,086	1,178	1	22,265

Amortised cost	2018 One year or less $million	One to five years $million	Over five years $million	Total $million
Corporate & Institutional Banking	26,890	19,102	7,156	53,148
Retail Banking	2,325	3,357	4,333	10,015
Commercial Banking	6,799	1,693	521	9,013
Private Banking	3,468	389	172	4,029
Central & other items	1,073	4	-	1,077
Net loans and advances to customers	40,555	24,545	12,182	77,282
Net loans and advances to banks	21,854	1,845	33	23,732

Debt securities and other eligible bills

This section provides further detail on gross debt securities and treasury bills.

Group

Amortised cost and FVOCI	2019 Debt securities and other eligible bills $million	2018 Debt securities and other eligible bills $million
12-month expected credit losses (stage 1)	**84,609**	118,715
AAA	**54,762**	55,207
AA- to AA+	**6,726**	35,685
A- to A+	**4,939**	13,803
BBB- to BBB+	**9,263**	9,639
Lower than BBB-	**973**	30
Unrated	**7,946**	4,351
Lifetime expected credit losses (stage 2)	**4,607**	6,908
AAA	**248**	155
AA- to AA+	**41**	115
A- to A+	**-**	54
BBB- to BBB+	**3,909**	5,486
Lower than BBB-	**204**	292
Unrated	**205**	806
Credit-impaired financial assets (stage 3)	**75**	498
Lower than BBB-	**-**	-
Unrated	**75**	498
Gross balance[1]	**89,291**	126,121

1 2018 stage 3 balances have been restated to reflect interest due but unpaid

Debt securities and other eligible bills

This section provides further detail on gross debt securities and treasury bills and asset backed securities.

Company

Amortised cost and FVOCI	2019 Debt securities and other eligible bills $million	2018 Debt securities and other eligible bills $million
12-month expected credit losses (stage 1)	70,515	61,836
AAA	47,395	44,923
AA- to AA+	6,175	6,145
A- to A+	3,535	1,837
BBB- to BBB+	6,960	7,047
Lower than BBB-	973	30
Unrated	5,477	1,854
Lifetime expected credit losses (stage 2)	1,117	1,978
AAA	231	119
AA- to AA+	20	16
A- to A+	-	50
BBB- to BBB+	786	1,423
Lower than BBB-	30	255
Unrated	50	115
Credit-impaired financial assets (stage 3)	43	-
Lower than BBB-	-	-
Unrated	43	-
Gross balance[1]	71,675	63,814

1 2018 stage 3 balances have been restated to reflect interest due but unpaid

The standard credit ratings used by the Group are those used by Standard & Poor's or its equivalent. Debt securities held that have a short-term rating are reported against the long-term rating of the issuer. For securities that are unrated, the Group applies an internal credit rating, as described under the credit rating and measurement section (page 110).

Debt securities and other eligible bills for Bank Group has reduced by $36.8 billion mainly due to discontinued operations of $50.1 billion, offset by increase in continued operations of $13.3 billion. For the continued operations, increase is a result of balance sheet growth whereby excess liquidity was invested in debt securities and other eligible bills to meet regulatory liquidity requirement.

IFRS 9 methodology

Approach for determining expected credit losses

Credit loss terminology

Component	Definition
Probability of default (PD)	The probability that a counterparty will default, over the next 12 months from the reporting date (stage 1) or over the lifetime of the product (stage 2) incorporating the impact of forward-looking economic assumptions that have an effect on credit risk, such as interest rates, unemployment rates and GDP forecasts. The PD estimates will fluctuate in line with the economic cycle. The lifetime (or term structure) PDs are based on statistical models, calibrated using historical data and adjusted to incorporate forward-looking economic assumptions.
Loss given default (LGD)	The loss that is expected to arise on default, incorporating the impact of forward-looking economic assumptions where relevant, which represents the difference between the contractual cash flows due and those that the bank expects to receive. The Group estimates LGD based on the history of recovery rates and considers the recovery of any collateral that is integral to the financial asset, taking into account forward-looking economic assumptions where relevant.
Exposure at default (EAD)	The expected balance sheet exposure at the time of default, taking into account expected changes over the lifetime of the exposure. This incorporates the impact of drawdowns of committed facilities, repayments of principal and interest, amortisation and prepayments.

To determine the expected credit loss, these components are multiplied together (PD for the reference period (up to 12 months or lifetime) x LGD x EAD) and discounted to the balance sheet date using the effective interest rate as the discount rate.

IFRS 9 expected credit loss models have been developed for the Corporate & Institutional Banking and Commercial Banking businesses on a global basis, in line with their respective portfolios. However, for some of the key countries, country-specific models have also been developed.

The calibration of forward-looking information is assessed at a country or region level to take into account local macroeconomic conditions.

Retail Banking expected credit loss models are country and product specific given the local nature of the Retail Banking business.

For less material Retail Banking portfolios, the Group has adopted less sophisticated approaches based on historical roll rates or loss rates:

- For medium-sized Retail Banking portfolios, a roll rate model is applied, which uses a matrix that gives average loan migration rate between delinquency states from period to period. A matrix multiplication is then performed to generate the final PDs by delinquency bucket over different time horizons
- For smaller Retail Banking portfolios, loss rate models are applied. These use an adjusted gross charge-off rate, developed using monthly write-off and recoveries over the preceding 12-months and total outstanding balances.
- While these models do not incorporate forward looking information, to the extent that there are significant changes in the macroeconomic forecasts an assessment will be completed on whether an adjustment to the modelled output is required.

For a limited number of exposures, proxy parameters or approaches are used where the data is not available to calculate the origination PDs for the purpose of applying the SICR criteria; or for some retail portfolios where a full history of LGD data is not available estimates based on the loss experience from similar portfolios are used. The use of proxies is monitored and will reduce over time.

The following processes are in place to assess the ongoing performance of the models:

- Quarterly model monitoring that uses recent data to compare the differences between model predictions and actual outcomes against approved thresholds.
- Annual independent validations of the performance of material models by GMV; an abridged validation is completed for non-material models.

Where a model's performance breaches the monitoring thresholds or validation standards then an assessment of whether an ECL Post Model Adjustment (PMA) is required to correct for the identified model issue is completed. For the year end reporting PMAs have been applied for seven models. In aggregate the PMAs increase the Group's impairment provisions by $9 million (0.1 per cent).

Application of lifetime

Expected credit loss is estimated based on the period over which the Group is exposed to credit risk. For the majority of exposures this equates to the maximum contractual period. For Retail Banking credit cards and Corporate & Institutional Banking overdraft facilities however, the Group does not typically enforce the contractual period, which can be as short as one day. As a result, the period over which the Group is exposed to credit risk for these instruments reflects their behavioural life, which incorporates expectations of customer behaviour and the extent to which credit risk management actions curtails the period of that exposure. During the year, the Group revised the approach to determining behavioural life for credit cards, assessing at an individual card rather than customer level. This has resulted in an average life of between 3 and 6 years across our footprint markets (2018: 3 to 10years). The change in approach did not have a material impact on the 2019 income statement. Corporate overdraft facilities have a 32-month lifetime (2018: 32 months).

Key assumptions and judgements in determining expected credit loss

Incorporation of forward-looking information

The evolving economic environment is a key determinant of the ability of a bank's clients to meet their obligations as they fall due. It is a fundamental principle of IFRS 9 that the provisions banks hold against potential future credit risk losses should depend not just on the health of the economy today, but should also take into account potential changes to the economic environment. For example, if a bank were to anticipate a sharp slowdown in the world economy over the coming year, it should hold more provisions today to absorb the credit losses likely to occur in the near-future.

To capture the effect of changes to the economic environment, the PDs and LGDs used to calculate expected credit loss, incorporate forward-looking information in the form of forecasts of the values of economic variables and asset prices that are likely to have an effect on the repayment ability of the Group's clients.

The "Base Forecast" of the economic variables and asset prices is based on management's view on the five-year outlook, supported by projections from the Group's in-house research team and outputs from a third-party model that project specific economic variables and asset prices. The research team takes consensus views into consideration and senior management review projections for some core country variables against consensus when forming their view of the outlook. For the period beyond five years, management utilises the inhouse research view and outputs and third party model outputs which allow for a reversion to long-term growth rates or norms. All projections are updated on a quarterly basis.

Forecast of key macroeconomic variables underlying the expected credit loss calculation and the impact on non-linearity

The Base Forecast – management's view of the most likely outcome – is that the synchronised expansion of the global economy will continue, characterised by somewhat weaker growth in the near term. There are some major challenges to the outlook for some of the Bank's key markets such as Hong Kong, but the recent interest rate cuts by a number of prominent central banks and fiscal stimulus measures in key markets, such as China and India, will counter headwinds to global growth including from structural drags such as debt overhang, ageing populations and anti-globalisation sentiment.

Economies are expected to reach their long-term – or potential – growth levels within the next three to five years, as the effect of current economic shocks dissipate. For countries which are going through a phase of structural transition it could take a little longer to reach potential growth rates. For example, China's rebalancing towards consumption and more sustainable growth is expected to slow its trend growth to around 5% by the end of the decade.

While the quarterly base forecasts informs the Group's strategic plan, one of the key requirements of IFRS 9 is that the assessment of provisions should consider multiple future economic environments. For example, the global economy may grow more quickly or more slowly than the Base Forecast, and these variations would have different implications for the provisions that the Group should hold today. As the negative impact of an economic downturn on credit losses tends to be greater than the positive impact of an economic upturn, if the Group sets provisions only on the expected credit loss under the Base Forecast it might maintain a level of provisions that does not appropriately capture the range of potential outcomes. To address this skewness (or non-linearity) in expected credit losses, IFRS 9 requires the ECL to be the probability-weighted ECL outcome calculated for a range of possible outcomes.

To assess the range of possible outcomes, the Group simulates a set of 50 scenarios around the Base Forecast and calculates the expected credit loss under each of them and assigns an equal weight of 2 per cent to each scenario outcome. These scenarios are generated by a Monte Carlo simulation, which considers the degree of uncertainty (or volatility) around economic outcomes and how these outcomes have tended to move in relation to one another (or correlation). The use of Monte Carlo simulation is motivated by the number and spread of countries in which the Group operates. This implies that the number of countries' macroeconomic variables to forecast is large, but more importantly the observation that a downturn in one part of the world is never perfectly synchronised with downturns everywhere else means that the Group may be challenged to capture a full range of scenarios with a handful of manually tuned scenarios.

While the 50 scenarios do not each have a specific narrative, they reflect a range of plausible hypothetical alternative outcomes for the global economy. Some imply an unwinding of the current shocks and uncertainty leading to higher global economic activity and higher asset prices, while others represent an intensification of current shocks or introduction of new shocks that raise uncertainty, leading to lower global economic activity and lower asset prices.

The table on the next page provides a summary of the Group's Base Forecast for key footprint markets, alongside the corresponding range seen across the multiple scenarios. To inform on the range within the Base Forecasts, the peak/trough amounts in the table show the highest and lowest points within the Base Forecast.

Since the start of the year global trade tensions between the US and China have affected investment sentiment and export performance across Asia. Growth in China and trade dependent countries such as Singapore and Korea has softened. This is reflected by the five-year average GDP growth for all three falling marginally compared to last year. Hong Kong has fallen into a pronounced recession and there has been a material downgrade in the near-term outlook. Beyond the impact of trade tensions and China slowdown, the social unrest and subsequent disruption have triggered the largest economic contraction since 2009. The current pressures on the Hong Kong economy are not expected to dissipate soon. India's economic growth has also been surprisingly weak: GDP growth fell to the slowest pace in more than six years in Q1-FY20 (April to June 2019). Weaker trade, weaker credit demand by non-bank finance companies, and significant weakness in household consumption have weighed on economic activity. However, stimulus measures by India's central bank and the government is expected to help growth pick up to close to its long-term level by early end 2021.

Slowing growth, lower-than-expected inflation and rising downside risks have caused central banks around the world to adopt an increasingly accommodative monetary policy stance. This is reflected by lower average interest rates across the five countries compared to a year ago.

There were material revisions to the base forecast for oil prices since last year. At the end of last year oil prices were expected to average around $85/barrel over the medium term, but by the end of 2019 that projection had been revised down to around $71. Oil prices have been weaker than expected during the year and this is reflected in the revised projections. Trade tensions between the US and China and weakness in oil demand concentrated in the OECD have weighed on prices in 2019.

Risk profile

After the close of the 2019 accounts, the outbreak of novel coronavirus Covid-19 in January 2020 has increased risk aversion and uncertainty. The outbreak will likely lead to a weaker outlook for at least the Group's Asian markets in 2020.

Risk profile

2019	China				Hong Kong				Korea				Singapore				India			
	5 yr average base forecast	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**
GDP growth (YoY%)	5.8	6.3/5.5	4.4	7.4	1.6	2.5/-4.8	-2.7[4]	4.4	2.6	2.9/2.1	0.6	4.8	2.1	2.5/0.9	-1.4	5.9	6.9	7.2/6.1	5.0	9.0
Unemployment (%)	3.6	3.6/3.6	3.6	3.7	3.5	3.6/3.1	2.7	4.3	3.6	4.0/3.2	3.0	4.2	3.0	3.2/3.0	2.3	3.8	N/A	N/A	N/A	N/A
3 month interest rates (%)	2.6	2.8/2.3	1.8	3.6	2.4	3.5/1.2	0.9	4.3	1.7	2.5/1.2	0.8	2.9	2.0	2.9/1.3	1.1	3.1	5.2	5.6/4.8	4.3	6.1
House prices (YoY%)	6.3	7.6/4.2	4.2	8.3	3.6	5.7/-5.1	-6.5	14.6	2.6	2.8/0.7	0.5	4.8	3.4	4.4/0.4	-2.7	9.7	7.8	8.1/6.9	2.4	13.2

2018	China				Hong Kong				Korea				Singapore				India			
	5 yr average base forecast	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**
GDP growth (YoY%)	6.0	6.6/5.7	4.3	7.7	3.0	3.0/3.0	0.6	5.6	2.9	3.0/2.4	0.4	5.3	2.4	2.7/2.2	(1.7)	6.4	7.7	8.0/6.7	5.6	10.1
Unemployment (%)	4.0	4.0/3.9	3.8	4.2	3.4	3.6/2.9	2.4	4.6	3.2	3.5/3.0	2.4	4.0	3.0	3.0/2.9	2.3	3.7	N/A	N/A	N/A	N/A
3 month interest rates (%)	3.1	3.2/2.9	2.0	4.3	3.0	3.4/2.8	1.8	4.2	2.6	3.0/1.9	1.4	4.0	2.4	2.4/2.0	1.3	3.8	6.9	7.3/6.4	5.1	8.9
House prices (YoY%)	5.8	7.2/3.8	3.4	8.5	2.3	9.8/-2.7	(8.1)	12.1	3.5	4.0/1.8	1.3	6.1	4.4	6.4/3.8	(1.5)	10.6	8.4	8.8/7.9	1.4	15.1

	2019				2018			
	5 yr average base forecast	**Peak/ trough**	**Low[2]**	**High[3]**	**5 yr average base forecast**	**Peak/ trough**	**Low[2]**	**High[3]**
Crude price Brent, $ pb	71	76/66	42	102	85	91/76	40	118

1 Not available

2 Represents the 10th percentile in the range used to determine non-linearity

3 Represents the 90th percentile in the range used to determine non-linearity

4 This value is higher than the trough in the base forecast because it is measured over the five-year range; if the 10th percentile had been read off the first half of 2020, it would have been -5.7.

Sensitivity of expected credit loss calculation to macroeconomic variables

The expected credit loss calculation relies on multiple variables and is inherently non-linear and portfolio-dependent, which implies that no single analysis can fully demonstrate the sensitivity of the expected credit loss to changes in the macroeconomic variables. The Group has conducted a series of analyses with the aim of identifying the macroeconomic variables which might have the greatest impact on overall expected credit loss. These encompassed single variable and multi-variable exercises, using simple up/down variation and extracts from actual calculation data, as well as bespoke scenario design and assessments.

The primary conclusion of these exercises is that no individual macroeconomic variable is materially influential – that is, likely to result in an impact of at least 1 per cent of the Group's expected credit loss. The Group believes this is plausible as the number of variables used in the expected credit loss calculation is large. This does not mean that macroeconomic variables are uninfluential; rather, that the Group believes that consideration of macroeconomics should involve whole scenarios, as this aligns with the multi-variable nature of the calculation.

As the PLC Group has Emerging Risks related to the macroeconomic outlook, a sensitivity analysis of ECL was undertaken to explore the effect of these: an extended trade war that leads to a China slowdown with spillovers to emerging markets. In this scenario, current trade policy tensions between the US and China increase dramatically. The US targets trading partners with which it has a material trade deficit and pushes through highly protectionist measures, initiating a trade war with Asia focused on China. Indirectly, economies reliant on global trade flows are vulnerable to the trade shock. The escalating trade war creates uncertainty which reduces risk appetite, leading to a sharp decline in asset prices and lower consumption and investment across developed and emerging markets. This leads to a global downturn and a sharp fall in commodity prices. As an indication, China annual real GDP growth troughs at circa. 4 per cent, representing a slight divergence from the base forecast growth of around 6 per cent, while China exports growth becomes negative for the first time since 2009. US GDP falls from a trend rate of about 2 per cent down to 1 per cent, crude oil prices fall, and residential property indices in China and Hong Kong dip negative. To contextualise this scenario relative to the Monte Carlo generated scenarios, the China and US GDP dips approach the lowest growth boundary of the 50 scenarios in 2019, crude oil remains closer to the middle than to the bottom edge, but the China property price index falls well below the simulated lower bound over a period of years.

	Moderate downside		Extreme downside	
	Five year average	Peak / Trough	Five year average	Peak / Trough
China GDP	4.9%	5.6% / 3.4%	3.0%	5.3% / (2.0%)
China unemployment	4.4%	4.5% / 3.9%	5.9%	6.2% / 4.6%
China property prices	0.0%	7.1% / (7.0%)	(12.5%)	6.2% / (29.4%)
Hong Kong GDP	0.7%	2.3% / (5.5%)	(1.4%)	1.9% / (10.3%)
Hong Kong unemployment	4.3%	4.8% / 3.4%	5.9%	7.7 / 3.9%
Hong Kong property prices	0.1%	7.0% / (13.2%)	(8.1%)	18.4% / (34.8%)
US GDP	1.4%	1.8% / 0.2%	0.8%	1.9% / (2.6%)
Crude Oil	$58.8	$71.0 / $51.3	$35	$60.1 / $21.9

Modelled expected credit loss provisions would be approximately $293 million higher than the reported base case expected credit loss provision (excluding the impact of non-linearity) under the moderate scenario and $2.1 billion higher under the extreme scenario. This includes the impact of exposures transferring to stage 2 from stage 1 but does not consider an increase in stage 3 defaults. There was no material change in modelled stage 3 provisions as these primarily relate to unsecured Retail Banking exposures for which the LGD is not sensitive to changes in the macroeconomic forecasts. The main corporate portfolios impacted is in Singapore. Within Retail the main impacts are on the Group's credit card portfolio in Singapore. Note that the actual outcome of any scenario may be materially different due to, amongst other factors, the effect of management actions to mitigate potential increases in risk and changes in the underlying portfolio.

Significant increase in credit risk

Quantitative criteria

SICR is assessed by comparing the risk of default at the reporting date to the risk of default at origination. Whether a change in the risk of default is significant or not is assessed using quantitative and qualitative criteria. These quantitative significant deterioration thresholds have been separately defined for each business and where meaningful are consistently applied across business lines.

Assets are considered to have experienced SICR if they have breached both relative and absolute thresholds for the change in the average annualised lifetime probability of default over the residual term of the exposure.

The absolute measure of increase in credit risk is used to capture instances where the PDs on exposures are relatively low at initial recognition as these may increase by several multiples without representing a significant increase in credit risk. Where PDs are relatively high at initial recognition, a relative measure is more appropriate in assessing whether there is a significant increase in credit risk, as the PDs increase more quickly.

The SICR thresholds have been calibrated based on the following principles:

- → Stability – The thresholds are set to achieve a stable Stage 2 population at a portfolio level, trying to minimise the number of accounts moving back and forth between Stage 1 and Stage 2 in a short period of time
- → Accuracy – The thresholds are set such that there is a materially higher propensity for Stage 2 exposures to eventually default than is the case for Stage 1 exposures
- → Dependency from backstops – The thresholds are stringent enough such that a high proportion of accounts transfer to Stage 2 due to movements in forward-looking PD rather than relying on backward-looking backstops such as arrears
- → Relationship with business and product risk profiles – The thresholds reflect the relative risk differences between different products, and are aligned to business processes

For Corporate & Institutional Banking and Commercial Banking clients, the relative threshold is a 100 per cent increase in PD and the absolute change in PD is between 50-100 bps.

For Retail Banking clients, the relative threshold is a 100 per cent increase in PD and the absolute change in PD is between 100-350 bps depending on the product. Certain counties have a higher absolute threshold reflecting the lower default rate within their personal loan portfolios compared with the Group's other personal loan portfolios.

Private Banking clients are assessed qualitatively, based on a delinquency measure relating to collateral top-ups or sell-downs.

Debt securities originated before 1 January 2018 with an internal credit rating mapped to an investment grade equivalent are allocated to Stage 1 and all other debt securities to Stage 2. Debt securities originated after 1 January 2018 apply the same approach and thresholds as for Corporate & Institutional Banking and Commercial Banking clients.

Qualitative criteria

Qualitative factors that indicate that there has been a significant increase in credit risk include processes linked to current risk management, such as placing loans on non-purely precautionary Early Alert.

Backstop

Across all portfolios, accounts that are 30 or more days past due (DPD) on contractual payments of principal and/or interest that have not been captured by the criteria above are considered to have experienced a significant increase in credit risk.

Expert credit judgement may be applied in assessing significant increase in credit risk to the extent that certain risks may not have been captured by the models or through the above criteria. Such instances are expected to be rare, for example due to events and material uncertainties arising close to the reporting date.

Corporate & Institutional Banking and Commercial Banking clients

Quantitative criteria

Exposures are assessed based on both the absolute and the relative movement in the PD from origination to the reporting date as described above.

To account for the fact that the mapping between internal credit grades (used in the origination process) and PDs is non-linear (e.g. a one-notch downgrade in the investment grade universe results in a much smaller PD increase than in the sub-investment grade universe), the absolute thresholds have been differentiated by credit quality at origination, as measured by internal credit grades being investment grade or sub-investment grade.

Qualitative criteria

All assets of clients that have been placed on Early Alert (for non-purely precautionary reasons) are deemed to have experienced a significant increase in credit risk.

An account is placed on non-purely precautionary Early Alert if it exhibits risk or potential weaknesses of a material nature requiring closer monitoring, supervision or attention by management. Weaknesses in such a borrower's account, if left uncorrected, could result in deterioration of repayment prospects and the likelihood of being downgraded. Indicators could include a rapid erosion of position within the industry, concerns over management's ability to manage operations, weak/deteriorating operating results, liquidity strain and overdue balances among other factors.

All client assets that have been assigned a CG12 rating, equivalent to 'Higher Risk', are deemed to have experienced a significant increase in credit risk. Accounts rated CG12 are managed by the GSAM unit. All Corporate & Institutional Banking and Commercial Banking clients are placed on CG12 when they are 30 DPD unless they are granted a waiver through a strict governance process.

Retail Banking clients

Quantitative criteria

Material portfolios (defined as a combination of country and product, for example Singapore mortgages, Kenya credit cards) for which a statistical model has been built, are assessed based on both the absolute and relative movement in the PD from origination to the reporting date as described previously (page 85). For these portfolios, the original lifetime PD term structure is determined based on the original Application Score or Risk Segment of the client.

Qualitative criteria

Accounts that are 30 DPD that have not been captured by the quantitative criteria are considered to have experienced a significant increase in credit risk. For less material portfolios, which are modelled based on a roll-rate or loss-rate approach, significant increase in credit risk is primarily assessed through the 30 DPD trigger.

Private Banking clients

For Private Banking clients, significant increase in credit risk is assessed by referencing the nature and the level of collateral against which credit is extended (known as 'Classes of Risk').

Qualitative criteria

For all Private Banking Classes, in line with risk management practice, an increase in credit risk is deemed to have occurred where margining or loan-to-value covenants have been breached.

For Class I assets (lending against diversified liquid collateral), if these margining requirements have not been met within 30 days of a trigger, a significant increase in credit risk is assumed to have occurred.

For Class I and Class III assets (real-estate lending), a significant increase in credit risk is assumed to have occurred where the bank is unable to 'sell down' the applicable assets to meet revised collateral requirements within five days of a trigger.

Class II assets are typically unsecured or partially secured, or secured against illiquid collateral such as shares in private companies. Significant credit deterioration of these assets is deemed to have occurred when any Early Alert trigger has been breached.

Debt Securities

Quantitative criteria

For debt securities originated before 1 January 2018, the bank is utilising the low credit risk simplified approach, where debt securities with an internal credit rating mapped to an investment grade equivalent are allocated to stage 1 and all other debt securities are allocated to stage 2. Debt securities originated after 1 January 2018 are assessed based on the absolute and relative movements in PD from origination to the reporting date.

Qualitative criteria

Debt securities utilise the same qualitative criteria as the Corporate & Institutional Banking and Commercial Banking client segments, including being placed on Early Alert or being classified as CG12.

Assessment of credit-impaired financial assets

Retail Banking Clients

The core components in determining credit-impaired expected credit loss provisions are the value of gross charge off and recoveries. Gross charge off and/or loss provisions are recognised when it is established that the account is unlikely to pay through the normal process. Recovery of unsecured debt post credit impairment is recognised based on actual cash collected, either directly from clients or through the sale of defaulted loans to third-party institutions. Release of credit impairment provisions for secured loans is recognised if the loan outstanding is paid in full (release of full provision), or the provision is higher than the loan outstanding (release of the excess provision).

Corporate & Institutional Banking, Commercial Banking and Private Banking Clients

Credit-impaired accounts are managed by the Group's specialist recovery unit, Group Special Assets Management (GSAM), which is independent from its main businesses. Where any amount is considered irrecoverable, a stage 3 credit impairment provision is raised. This stage 3 provision is the difference between the loan-carrying amount and the probability-weighted present value of estimated future cash flows, reflecting a range of scenarios (typically the best, worst and most likely recovery outcomes). Where the cash flows include realisable collateral, the values used will incorporate the impact of forward-looking economic information.

The individual circumstances of each client are considered when GSAM estimates future cash flows and timing of future recoveries which involve significant judgement. All available sources, such as cash flow arising from operations, selling assets or subsidiaries, realising collateral or payments under guarantees are considered. In any decision relating to the raising of provisions, the Group attempts to balance economic conditions, local knowledge and experience, and the results of independent asset reviews.

Write-offs

Where it is considered that there is no realistic prospect of recovering a portion of an exposure against which an impairment provision has been raised, that amount will be written off.

Governance and application of expert credit judgement in respect of expected credit losses

The Group's Credit Policy and Standards framework details the requirements for continuous monitoring to identify any changes in credit quality and resultant ratings, as well as ensuring a consistent approach to monitoring, managing and mitigating credit risks. The framework aligns with the governance of ECL estimation through the early recognition of significant deteriorations in ratings which drive Stage 2 and 3 ECL.

The models used in determining expected credit losses are reviewed and approved by the Group Credit Model Assessment Committee (CMAC) which is appointed by the Model Risk Committee. CMAC has the responsibility to assess and approve the use of models and to review all IFRS 9 interpretations related to models. CMAC also provides oversight on operational matters related to model development, performance monitoring and model validation activities including standards, regulatory and Group Internal Audit matters.

Prior to submission to CMAC for approval, the models have been validated by Group Model Validation (GMV), a function which is independent of the business and the model developers. GMV's analysis comprises review of model documentation, model design and methodology; data validation; review of model development and calibration process; out-of-sample performance testing; and assessment of compliance review against IFRS 9 rules and internal standards.

A quarterly model monitoring process is in place that uses recent data to compare the differences between model predictions and actual outcomes against approved thresholds. Where a model's performance breaches the monitoring thresholds then an assessment of whether an ECL adjustment is required to correct for the identified model issue is completed.

Risk profile

Key inputs into the calculation and resulting expected credit loss provisions are subject to review and approval by the IFRS 9 Impairment Committee which is appointed by the Group Risk Committee. The IFRS 9 Impairment Committee consists of senior representatives from Risk, Finance, and Group Economic Research. It meets at least twice every quarter, once before the models are run to approve key inputs into the calculation, and once after the models are run to approve the expected credit loss provisions and any judgemental overrides that may be necessary.

The IFRS 9 Impairment Committee:

→ Oversees the appropriateness of all Business Model Assessment and Solely Payments of Principal and Interest (SPPI) tests;
→ Reviews and approves expected credit loss for financial assets classified as stages 1, 2 and 3 for each financial reporting period;
→ Reviews and approves stage allocation rules and thresholds;
→ Approves material adjustments in relation to expected credit loss for fair value through other comprehensive income (FVOCI) and amortised cost financial assets
→ Reviews, challenges and approves base macroeconomic forecasts and (the multiple macroeconomic scenarios approach) that are utilised in the forward-looking expected credit loss calculations

The IFRS 9 Impairment Committee is supported by an Expert Panel which reviews and challenges the full extended version of base case projections and multiple macroeconomic scenarios. The Expert Panel consists of members of Enterprise Risk Management (which includes the Scenario Design team), Finance, Group Economic Research and country representatives of major jurisdictions.

Post model adjustments (PMA) may be applied to account for identified weaknesses in model estimates. The processes for identifying the need for, calculating the level of, and approving PMAs are prescribed in the Credit Risk IFRS9 ECL Model Family Standards which are approved by CMAC. PMA calculation methodologies are reviewed by GMV and submitted to CMAC as the model approver. As part of the governance framework Model Risk Oversight review that PMAs adhere to the requirements given in the standards. All PMAs have a remediation plan to fix the identified model weakness, and these plans are reported to and tracked at CMAC.

In addition, Risk Event Overlays account for events that are sudden and therefore not captured in the Base Case Forecast or the resulting ECL calculated by the models. All Risk Event Overlays must be approved by the IIC having considered the nature of the event, why the risk is not captured in the model, and the basis on which the quantum of the overlay has been calculated. Risk Event Overlays are subject to quarterly review and re-approval by the IIC.

Risk profile

Traded Risk

Traded Risk is the potential for loss resulting from activities undertaken by the bank in financial markets. Under the Enterprise Risk Management Framework, the Traded Risk Framework brings together all risk types exhibiting risk features common to Traded Risk.

These risk types include Market Risk, Counterparty Credit Risk, Issuer Risk, XVA, Algorithmic Trading and Pension Risk. Traded Risk Management (TRM) is the core risk management function supporting market-facing businesses, specifically Financial Markets and Treasury Markets.

Market Risk

Market Risk is the potential for loss of economic value due to adverse changes in financial market rates or prices. The bank's exposure to Market Risk arises predominantly from the following sources:

→ Trading book: the bank provides clients access to financial markets, facilitation of which entails the bank taking moderate Market Risk positions. All trading teams support client activity; there are no proprietary trading teams. Hence, income earned from Market Risk-related activities is primarily driven by the volume of client activity rather than risk-taking.

→ Non-trading book:

- The Treasury Markets desk is required to hold a liquid assets buffer, much of which is held in high-quality marketable debt securities
- The bank has capital invested and related income streams denominated in currencies other than US dollars. To the extent that these are not hedged, the bank is subject to Structural Foreign Exchange Risk which is reflected in reserves

A summary of our current policies and practices regarding Market Risk management is provided in the Principal risks section (page 109).

The primary categories of Market Risk for the bank are:

→ Interest Rate Risk: arising from changes in yield curves, credit spreads and implied volatilities on interest rate options
→ Foreign Exchange Rate Risk: arising from changes in currency exchange rates and implied volatilities on foreign exchange options
→ Commodity Risk: arising from changes in commodity prices and implied volatilities on commodity options; covering energy, precious metals, base metals and agriculture as well as commodity baskets
→ Equity Risk: arising from changes in the prices of equities, equity indices, equity baskets and implied volatilities on related options

Market Risk changes

The average level of total trading and non-trading VaR in 2019 was $24 million, 16.5 per cent higher than in 2018 ($20.6 million). The actual level of total trading and non-trading VaR in 2019 was $26.9 million, 5.5 per cent higher than in 2018 ($25.5 million).

For the trading book, the average level of VaR in 2019 was $9.8 million at the same level as in 2018. Trading activities have remained relatively unchanged and client-driven.

Trading and non-trading VaR results are not directly comparable year-on-year as the 2018 figures are based on the previous Group structure. The average, high and low levels of VaR in 2019 reflect data from 10 May 2019 onwards.

Daily value at risk (VaR at 97.5%, one day)

	2019				2018			
	Average	High[1]	Low[1]	Actual[2]	Average	High[1]	Low[1]	Actual[2]
Trading and non-trading	$million	$million	$million	$million	$million	$million	$million	$million
Interest Rate Risk[3]	23.2	28.4	18.4	27.1	19.2	25.9	16.6	25.9
Foreign Exchange Risk	3.8	7.9	2.1	4.9	4.4	8.6	2.5	7.7
Commodity Risk	1.4	2.2	0.9	1.2	1.3	2.1	0.8	1.2
Equity Risk	3.7	4.6	2.7	2.9	4.8	6.8	2.6	2.7
Total[4]	24.0	28.7	20.2	26.9	20.6	26.1	16.4	25.5

	2019				2018			
	Average	High[1]	Low[1]	Actual[2]	Average	High[1]	Low[1]	Actual[2]
Trading[5]	$million	$million	$million	$million	$million	$million	$million	$million
Interest Rate Risk[3]	6.6	8.7	5.3	6.3	8.0	11.7	6.0	7.9
Foreign Exchange Risk	3.8	7.9	2.1	4.9	4.4	8.6	2.5	7.7
Commodity Risk	1.4	2.2	0.9	1.2	1.3	2.1	0.8	1.2
Equity Risk	-	-	-	-	0.1	0.1	-	-
Total[4]	9.8	12.3	7.8	9.4	9.8	13.8	7.5	13.6

Risk profile

Non-trading	2019 Average $million	High[1] $million	Low[1] $million	Actual[2] $million	2018 Average $million	High[1] $million	Low[1] $million	Actual[2] $million
Interest Rate Risk[3]	21.0	26.6	17.3	24.0	16.8	20.7	14.1	20.7
Equity Risk[6]	3.7	4.6	2.7	2.9	4.7	6.8	2.6	2.7
Total[4]	21.7	26.7	18.8	24.8	17.2	21.3	15.3	21.3

1 Highest and lowest VaR for each risk factor are independent and usually occur on different days

2 Actual one-day VaR at year-end date

3 Interest Rate Risk VaR includes Credit Spread Risk arising from securities accounted for as fair value through profit or loss (FVTPL) or fair value through other comprehensive income (FVOCI)

4 The total VaR shown in the tables above is not equal to the sum of the component risks due to offsets between them

5 Trading book for Market Risk is defined in accordance with the EU Capital Requirements Regulation (CRD IV/CRR) Part 3 Title I Chapter 3, which restricts the positions permitted in the trading book

6 Non-trading Equity Risk VaR includes only listed equities

The following table sets out how trading and non-trading VaR is distributed across the Bank's products:

	2019 Average $million	High[1] $million	Low[1] $million	Actual[2] $million	2018 Average $million	High[1] $million	Low[1] $million	Actual[2] $million
Trading and non-trading	24.0	28.7	20.2	26.9	20.6	26.1	16.4	25.5
Trading[4]								
Rates	7.0	8.5	5.2	5.8	5.0	7.1	3.8	5.8
Global Foreign Exchange	3.8	7.9	2.1	4.9	4.4	8.6	2.5	7.7
Credit Trading & Capital Markets	3.9	6.7	3.1	4.4	3.8	6.1	1.8	2.9
Commodities	1.4	2.2	0.9	1.2	1.3	2.1	0.8	1.2
Equities	3.7	4.6	2.7	2.9	0.1	0.1	-	-
XVA	4.1	5.4	3.3	3.3	3.1	4.1	2.3	3.5
Total[3]	9.8	12.3	7.8	9.4	9.8	13.8	7.5	13.6
Non-trading								
Treasury Markets	21.0	26.6	17.3	24.0	16.8	20.7	14.1	20.7
Listed private equity	3.7	4.6	2.7	2.9	4.7	6.8	2.6	2.7
Total[3]	21.7	26.7	18.8	24.8	17.2	21.3	15.3	21.3

1 Highest and lowest VaR for each risk factor are independent and usually occur on different days

2 Actual one-day VaR at year-end date

3 The total VaR shown in the tables above is not a sum of the component risks due to offsets between them

4 Trading book for Market Risk is defined in accordance with the EU Capital Requirements Regulation (CRD IV/CRR) Part 3 Title I Chapter 3, which restricts the positions permitted in the trading book

Average daily income earned from market risk related activities[1]

Trading	2019 $million	2018 $million
Interest Rate Risk	3.3	3.1
Foreign Exchange Risk	4.1	3.9
Commodity Risk	0.6	0.8
Equity Risk	-	-
Total	8.0	7.8
Non-trading		
Interest Rate Risk	1.7	2.4
Equity Risk	0.3	0.4
Total	2.0	2.8

1 Reflects total product income which is the sum of client income and own account income. Includes elements of trading income, interest income and other income which are generated from Market Risk-related activities. XVA income is included under Interest Rate Risk

Structural foreign exchange exposures

The table below sets out the principal structural foreign exchange exposures (net of investment hedges) of the Group.

	2019 $million	2018 $million
Hong Kong dollar	171	7,786
Indian rupee	3,930	3,819
Renminbi	29	2,900
Singapore dollar	2,531	2,797
Korean won	-	2,148
Taiwanese dollar	44	1,238
UAE dirham	1,994	1,852
Malaysian ringgit	1,557	1,513
Thai baht	929	1,304
Indonesian rupiah	1,139	999
Pakistani rupee	441	458
Other	4,558	3,999
	17,323	30,813

The creation of the GCNA hub in 2019 has resulted in the reduction of the Group's exposures and hedged positions. As at 31 December 2019, the Group had taken net investment hedges using derivative financial instruments of $691 million (31 December 2018: $712 million) to partly cover its exposure to Indian rupee. Following the sale of the GCNA hub entities, the Group no longer has net investment hedges using derivative financial instruments to partly cover exposures to Korean Won, Taiwanese dollar or Renminbi (31 December 2018: $2,137 million, $1,606 million and $712 million for Korean Won, Taiwanese dollar and Renminbi respectively). An analysis has been performed on these exposures to assess the impact of a 1 per cent fall in the US dollar exchange rates, adjusted to incorporate the impacts of correlations of these currencies to the US dollar. The impact on the positions above would be an increase of $147 million (31 December 2018: $336 million). Changes in the valuation of these positions are taken to reserves.

For analysis of the Group's capital position and requirements, refer to the Capital Review (page 138).

Counterparty Credit Risk

Counterparty Credit Risk is the potential for loss in the event of the default of a derivative counterparty, after taking into account the value of eligible collaterals and risk mitigation techniques. The Bank's counterparty credit exposures are included in the Credit Risk section.

Derivative financial instruments Credit Risk mitigation

The Group enters into master netting agreements, which in the event of default result in a single amount owed by or to the counterparty through netting the sum of the positive and negative mark-to-market values of applicable derivative transactions. The value of exposure under master netting agreements is $31,106 million (2018: $32,283 million).

In addition, the Group enters into credit support annexes (CSAs) with counterparties where collateral is deemed a necessary or desirable mitigant to the exposure. Cash collateral includes collateral called under a variation margin process from counterparties if total uncollateralised mark-to-market exposure exceeds the threshold and minimum transfer amount specified in the CSA. With certain counterparties, the CSA is reciprocal and requires us to post collateral if the overall mark-to-market values of positions are in the counterparty's favour and exceed an agreed threshold.

Liquidity and Funding risk

Liquidity and Funding Risk is the risk that we may not have sufficient stable or diverse sources of funding to meet our obligations as they fall due.

The Group follows the PLC Group's Liquidity and Funding Risk framework, which requires each country to ensure that it operates within predefined liquidity limits and remains in compliance with PLC's Group liquidity policies and practices, as well as local regulatory requirements.

The table below shows the composition of liabilities in which customer deposits make up 52 per cent of total liabilities and equity as at 31 December 2019, the majority of which are current accounts, savings accounts and time deposits. Our largest customer deposits base by geography is Europe & Americas which holds 49 per cent of Group customer accounts.

Composition of liabilities	Percentage
Equity	7.2%
Subordinated liabilities and other borrowed funds	2.7%
Debt securities in issue	7.7%
Derivative financial instruments	10.1%
Customer accounts	52.0%
Deposit by banks	6.5%
Other liabilities	13.8%
Total	**100.0%**

Geographic distribution of customer accounts	Percentage
Greater China & North Asia	1.6%
ASEAN & South Asia	37.8%
Africa & Middle East	11.6%
Europe & Americas	49.0%
Total	**100.0%**

Liquidity and Funding risk metrics

Liquidity metrics are monitored regularly on a country basis across the Group.

Liquidity coverage ratio (LCR) (unaudited)

The Liquidity Coverage Ratio (LCR) aims to ensure that a bank has sufficient unencumbered high-quality liquid assets to meet its liquidity needs in a 30-calendar-day liquidity stress scenario. At 31 December 2019, the Group's LCR was above 100 per cent calculated under European Commission Delegated Regulation 2015/6. Countries also meet their local LCR requirements where applicable.

Stressed coverage (unaudited)

Stress testing and scenario analysis are used to assess the financial and management capability to continue to operate effectively under extreme, but plausible, operating conditions and to understand the potential threats to the PLC Group's liquidity and other financial resources.

The PLC Group's internal liquidity stress testing framework covers the following stress scenarios:

Standard Chartered-specific – this scenario captures the liquidity impact from an idiosyncratic event affecting Standard Chartered only i.e. the rest of the market is assumed to operate normally.

Market wide – this scenario captures the liquidity impact from a market wide crisis affecting all participants in a country, region or globally.

Combined – this scenario assumes both Standard Chartered-specific and Market-wide events affecting the PLC Group simultaneously and hence is the most severe scenario.

All scenarios include, but are not limited to, modelled outflows for retail and wholesale funding, off-balance sheet funding risk, cross currency funding risk, intraday risk, franchise risk and risks associated with a deterioration of a firm's credit rating.

As of 31 December 2019, all entities within the Group met their stress test requirements.

External wholesale borrowing

This metric seeks to prevent excessive reliance on wholesale borrowing. Limits/targets are applied to branches and operating subsidiaries in the Group.

Advances-to-deposits ratio

This is defined as the ratio of total loans and advances to customers relative to total customer accounts. An advances-to-deposits ratio of below 100 per cent demonstrates that customer deposits exceed customer loans as a result of the emphasis placed on generating a high level of funding from customers. Limits/targets are applied to all branches and operating subsidiaries in the Group.

Risk profile

	2019 $million	2018 $million
Total loans and advances to customers[1,2,4]	132,205	250,927
Total customer accounts[3,4]	214,482	397,764
Advances-to-deposits ratio	61.6%	63.1%

1 Excludes reverse repurchase agreement and other similar secured lending of $1,339 million and includes loans and advances to customers held at fair value through profit and loss of $3,472 million

2 Loans and advances to customers for the purpose of the advances-to-deposits ratio excludes $9,109 million of approved balances held with central banks, confirmed as repayable at the point of stress. The loans and advances to customers balance at 31 December 2018 used in the advances-to-deposits ratio at 31 December 2018 has decreased by $7,412 million from $258,339 million to $250,927 million to exclude approved balances held with central banks. The advances-to-deposits ratio has been restated from 64.9 per cent to 63.1 per cent as a result

3 Includes customer accounts held at fair value through profit or loss of $4,221 million (31 December 2018: $6,751 million)

4 The decrease in loans and advances to customers and customer accounts is a result of the transfer out of the Group of the GCNA Hub entities

Net stable funding ratio (NSFR) (unaudited)

The NSFR is a balance sheet metric which requires institutions to maintain a stable funding profile in relation to the characteristics of their assets and off-balance sheet activities over a one-year horizon. It is the ratio between the amount of available stable funding (ASF) and the amount of required stable funding (RSF). ASF factors are applied to balance sheet liabilities and capital, based on their perceived stability and the amount of stable funding they provide. Likewise, RSF factors are applied to assets and off-balance sheet exposures according to the amount of stable funding they require. At the last reporting date, the NSFR for the Group's material entities remained above 100 per cent.

Liquidity pool (unaudited)

The liquidity value of the Group's LCR eligible liquidity pool at the reporting date was $114 billion. The figures in the below table account for haircuts, currency convertibility and portability constraints, and therefore are not directly comparable with the consolidated balance sheet. The pool is held to offset stress outflows as defined in European Commission Delegated Regulation 2015/61.

The liquidity pool assets decreased year-on-year as a result of the removal of the GCNA hub entities. We continue to hold high quality assets.

Group

	2019				
	Greater China & North East Asia[1] $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Total $million
Level 1 securities					
Cash and balances at central banks	9,093	11,535	1,265	24,326	46,219
Central banks, governments/public sector entities	669	7,952	2,201	39,136	49,958
Multilateral development banks and international organisations	-	1,183	160	7,448	8,791
Other	-	-	14	1,104	1,118
Total Level 1 securities	9,762	20,670	3,640	72,014	106,086
Level 2A securities	-	1,928	63	3,217	5,208
Level 2B securities	-	343	-	2,112	2,455
Total LCR eligible assets	9,762	22,941	3,703	77,343	113,749

1 This is represented by Japan balances

	2018				
	Greater China & North East Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Total $million
Level 1 securities					
Cash and balances at central banks	16,267	2,645	1,416	28,232	48,560
Central banks, governments/public sector entities	33,462	9,900	1,540	30,166	75,068
Multilateral development banks and international organisations	1,543	1,451	195	8,487	11,676
Other	-	-	-	1,125	1,125
Total Level 1 securities	51,272	13,996	3,151	68,010	136,429
Level 2 A securities	3,943	1,083	60	5,296	10,382
Level 2 B securities	-	1,264	-	1,527	2,791
Total LCR eligible assets	55,215	16,343	3,211	74,833	149,602

Company

	2019				
	Greater China & North East Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Total $million
Level 1 securities					
Cash and balances at central banks	9,093	637	1,033	20,699	31,462
Central banks, governments/public sector entities	669	4,095	1,895	39,136	45,795
Multilateral development banks and international organisations	-	-	160	7,449	7,609
Other	-	-	14	1,104	1,118
Total Level 1 securities	9,762	4,732	3,102	68,388	85,984
Level 2A securities	-	709	63	3,217	3,989
Level 2B securities	-	23	-	2,111	2,134
Total LCR eligible assets	9,762	5,464	3,165	73,716	92,107

	2018				
	Greater China & North East Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Total $million
Level 1 securities					
Cash and balances at central banks	11,378	897	996	28,232	41,503
Central banks, governments/public sector entities	27	5,502	1,122	30,166	36,817
Multilateral development banks and international organisations	-	963	195	8,487	9,645
Other	-	-	-	1,125	1,125
Total Level 1 securities	11,405	7,362	2,313	68,010	89,090
Level 2 A securities	-	216	60	5,296	5,572
Level 2 B securities	-	1,036	-	1,527	2,563
Total LCR eligible assets	11,405	8,614	2,373	74,833	97,225

Liquidity analysis of the Group's balance sheet

Contractual maturity of assets and liabilities

The following table presents assets and liabilities by maturity groupings based on the remaining period to the contractual maturity date as at the balance sheet date on a discounted basis. Contractual maturities do not necessarily reflect actual repayments or cashflows.

Within the tables below, cash and balances with central banks, interbank placements and investment securities that are fair value through other comprehensive income are used by the Group principally for liquidity management purposes.

As at the reporting date, assets remain predominantly short-dated, with 60 per cent maturing in under one year. Our less than three-month cumulative net funding gap increased from the previous year, largely due to an increase in customer accounts as the Group focused on improving the quality of its deposit base. In practice, these deposits are recognised as stable and have behavioural profiles that extend beyond their contractual maturities.

Group

	2019								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Assets									
Cash and balances at central banks	38,980	-	-	-	-	-	-	4,946	43,926
Derivative financial instruments	11,286	4,995	3,383	2,278	1,666	3,659	8,949	12,667	48,883
Loans and advances to banks[1,2]	24,514	15,284	8,235	4,061	3,112	1,683	1,286	432	58,607
Loans and advances to customers[1,2]	65,706	25,238	13,880	5,368	6,120	9,976	24,716	30,810	181,814
Investment securities	4,284	5,636	8,831	4,997	3,360	23,421	30,681	24,931	106,141
Other assets	12,888	15,439	1,191	104	45	246	104	5,893	35,910
Due from subsidiary undertakings and other related parties	11,137	-	-	-	-	-	-	-	11,137
Total assets	157,658	66,592	35,520	16,808	14,303	38,985	65,736	79,679	486,418

	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Liabilities									
Deposits by banks[1,3]	27,525	2,906	929	93	318	49	18	-	31,838
Customer accounts[1,4]	194,027	32,446	14,048	5,815	4,090	1,601	775	315	253,117
Derivative financial instruments	10,841	5,089	3,626	2,531	1,848	4,674	9,554	10,824	48,987
Senior debt	325	1,336	756	289	214	240	1,151	3,109	7,420
Other debt securities in issue[1]	5,024	11,332	8,965	860	1,448	280	1,720	465	30,094
Due to parent companies and other related undertakings	35,354	-	-	-	-	-	-	-	35,354
Other liabilities	9,245	14,689	2,306	229	151	1,767	621	2,530	31,538
Subordinated liabilities and other borrowed funds	-	-	-	-	-	-	3,520	9,509	13,029
Total liabilities	246,987	67,798	30,630	9,817	8,069	8,611	17,359	26,752	451,377
Net liquidity gap	(89,329)	(1,206)	4,890	6,991	6,234	30,374	48,377	52,927	35,041

1 Loans and advances, investment securities, deposits by banks, customer accounts and debt securities in issue include financial instruments held at fair value through profit or loss, see Note 12 Financial instruments (pages 177 to 210)

2 Loans and advances include reverse repurchase agreements and other similar secured lending of $59.4 billion

3 Deposits by banks include repurchase agreements and other similar secured borrowing of $ 7.4 billion

4 Customer accounts include repurchase agreements and other similar secured borrowing of $ 38.6 billion

	2018								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Assets									
Cash and balances at central banks	49,359	-	-	-	-	-	-	8,152	57,511
Derivative financial instruments	8,291	5,885	5,726	3,517	2,350	4,478	8,087	8,656	46,990
Loans and advances to banks[1,2]	38,327	20,549	11,209	5,214	2,835	2,584	1,064	280	82,062
Loans and advances to customers[1,2]	84,853	33,771	18,117	11,641	10,321	17,518	39,306	83,849	299,376
Investment securities	15,297	13,589	14,131	14,300	17,402	25,180	31,878	17,669	149,446
Other assets	21,211	8,837	2,087	223	134	91	149	21,777	54,509
Total assets	217,338	82,631	51,270	34,895	33,042	49,851	80,484	140,383	689,894
Liabilities									
Deposits by banks[1,3]	30,368	2,593	572	553	397	244	230	60	35,017
Customer accounts[1,4]	331,633	51,553	23,643	10,966	11,634	3,631	1,154	2,967	437,181
Derivative financial instruments	7,732	6,090	6,068	3,557	2,153	5,258	8,898	7,697	47,453
Senior debt	227	929	509	2,356	667	799	913	4,112	10,512
Other debt securities in issue[1]	4,893	9,793	8,062	177	715	1,029	16	1,396	26,081
Due to parent companies and other related undertakings	18,000	-	-	-	-	-	-	-	18,000
Other liabilities	22,762	8,592	4,003	852	514	866	377	11,608	49,574
Subordinated liabilities and other borrowed funds	23	-	-	-	-	2,749	4,013	6,460	13,245
Total liabilities	415,638	79,550	42,857	18,461	16,080	14,576	15,601	34,300	637,063
Net liquidity gap	(198,300)	3,081	8,413	16,434	16,962	35,275	64,883	106,083	52,831

1 Loans and advances, investment securities, deposits by banks, customer accounts and debt securities in issue include financial instruments held at fair value through profit or loss, see Note 12 Financial instruments (pages 177 to 210)

2 Loans and advances include reverse repurchase agreements and other similar secured lending of $61.7 billion

3 Deposits by banks include repurchase agreements and other similar secured borrowing of $ 5.0 billion

4 Customer accounts include repurchase agreements and other similar secured borrowing of $ 39.4 billion

Company

	2019								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Assets									
Cash and balances at central banks	31,862	-	-	-	-	-	-	2,872	34,734
Derivative financial instruments	6,628	6,214	3,796	2,534	2,077	4,130	9,673	13,472	48,524
Loans and advances to banks[1,2]	15,670	13,491	6,220	3,333	2,146	1,490	1,078	113	43,541
Loans and advances to customers[1,2]	43,553	18,237	11,236	3,647	3,513	7,749	17,463	12,167	117,565
Investment securities	2,013	2,695	7,885	3,939	2,546	20,709	23,333	21,560	84,680
Investment in subsidiary undertakings	-	-	-	-	-	-	-	8,615	8,615
Other assets	11,836	12,554	449	73	62	242	99	3,241	28,556
Due from subsidiary undertakings and other related parties	21,926	-	-	-	-	-	-	-	21,926
Total assets	133,488	53,191	29,586	13,526	10,344	34,320	51,646	62,040	388,141
Liabilities									
Deposits by banks[1,3]	22,682	2,669	893	82	318	49	18	1	26,712
Customer accounts[1,4]	124,802	26,159	8,835	3,292	1,736	904	709	261	166,698
Derivative financial instruments	7,017	6,230	4,013	2,735	1,944	4,789	10,000	11,719	48,447
Senior debt	296	1,247	494	274	214	240	1,037	2,977	6,779
Other debt securities in issue[1]	5,024	11,830	8,403	861	1,448	270	1,720	463	30,019
Due to parent companies and other related undertakings	43,357	-	-	-	-	-	-	-	43,357
Other liabilities	8,270	10,244	761	167	93	1,736	405	1,862	23,538
Subordinated liabilities and other borrowed funds	195	-	-	-	-	5	2,960	9,329	12,489
Total liabilities	211,643	58,379	23,399	7,411	5,753	7,993	16,849	26,612	358,039
Net liquidity gap	(78,155)	(5,188)	6,187	6,115	4,591	26,327	34,797	35,428	30,102

1 Loans and advances, investment securities, deposits by banks, customer accounts and debt securities in issue include financial instruments held at fair value through profit or loss, see Note 12 Financial instruments (pages 177 to 210)

2 Loans and advances include reverse repurchase agreements and other similar secured lending of $58.4 billion

3 Deposits by banks include repurchase agreements and other similar secured borrowing of $ 7.1 billion

4 Customer accounts include repurchase agreements and other similar secured borrowing of $ 38.6 billion

	2018								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Assets									
Cash and balances at central banks	42,508	-	-	-	-	-	-	2,241	44,749
Derivative financial instruments	6,981	6,056	5,813	3,438	2,391	4,616	8,268	9,367	46,930
Loans and advances to banks[1,2]	22,520	7,460	7,264	2,060	1,644	2,327	569	31	43,875
Loans and advances to customers[1,2]	44,913	17,378	10,327	4,868	2,473	5,930	18,675	12,218	116,782
Investment securities	2,139	2,608	4,685	5,922	10,275	16,284	20,998	13,079	75,990
Investment in subsidiary undertaking	-	-	-	-	-	-	-	13,598	13,598
Other assets	17,802	6,487	1,369	81	47,211	74	117	(1,752)	71,389
Due from subsidiary undertakings and other related parties	12,025	-	-	-	-	-	-	-	12,025
Total assets	148,888	39,989	29,458	16,369	63,994	29,231	48,627	48,782	425,338
Liabilities									
Deposits by banks[1,3]	23,941	2,326	369	158	296	32	28	48	27,198
Customer accounts[1,4]	114,554	30,762	7,440	3,463	2,998	1,160	409	327	161,113
Derivative financial instruments	7,541	6,116	6,045	3,448	2,073	4,992	8,580	7,873	46,668
Senior debt	179	772	354	789	267	761	671	3,318	7,111
Other debt securities in issue[1]	4,631	9,313	6,252	971	409	241	5	1	21,823
Due to parent companies and other related undertakings	40,697	-	-	-	-	-	-	-	40,697
Other liabilities	17,264	5,798	1,937	548	47,599	612	259	(3,371)	70,646
Subordinated liabilities and other borrowed funds	-	-	-	-	-	1,994	4,013	6,460	12,467
Total liabilities	208,807	55,087	22,397	9,377	53,642	9,792	13,965	14,656	387,723
Net liquidity gap	(59,919)	(15,098)	7,061	6,992	10,352	19,439	34,662	34,126	37,615

1 Loans and advances, investment securities, deposits by banks, customer accounts and debt securities in issue include financial instruments held at fair value through profit or loss, see Note 12 Financial instruments (pages 177 to 210)
2 Loans and advances include reverse repurchase agreements and other similar secured lending of $55.9 billion
3 Deposits by banks include repurchase agreements and other similar secured borrowing of $ 4.7 billion
4 Customer accounts include repurchase agreements and other similar secured borrowing of $ 37.9 billion

Behavioural maturity of financial assets and liabilities

The cashflows presented in the previous section reflect the cashflows that will be contractually payable over the residual maturity of the instruments. However, contractual maturities do not necessarily reflect the timing of actual repayments or cashflow. In practice, certain assets and liabilities behave differently from their contractual terms, especially for short-term customer accounts, credit card balances and overdrafts, which extend to a longer period than their contractual maturity. On the other hand, mortgage balances tend to have a shorter repayment period than their contractual maturity date. Expected customer behaviour is assessed and managed on a country basis using qualitative and quantitative techniques, including analysis of observed customer behaviour over time.

Maturity of financial liabilities on an undiscounted basis

The following table analyses the contractual cashflows payable for the Group's financial liabilities by remaining contractual maturities on an undiscounted basis. The financial liability balances in the table below will not agree to the balances reported in the consolidated balance sheet as the table incorporates all contractual cashflows, on an undiscounted basis, relating to both principal and interest payments. Derivatives not treated as hedging derivatives are included in the 'On demand' time bucket and not by contractual maturity.

Within the 'More than five years and undated' maturity band are undated financial liabilities, the majority of which relate to subordinated debt, on which interest payments are not included as this information would not be meaningful, given the instruments are undated. Interest payments on these instruments are included within the relevant maturities up to five year

Group	2019								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Deposits by banks	28,676	2,938	948	98	325	54	18	-	33,057
Customer accounts	194,528	32,651	14,932	5,853	4,146	1,622	799	323	254,854
Derivative financial instruments[1]	48,437	3	-	114	13	105	295	20	48,987
Debt securities in issue	5,359	13,250	9,733	1,173	1,669	524	2,873	3,587	38,168
Due to parent companies and other related undertakings	35,354	-	-	-	-	-	-	-	35,354
Subordinated liabilities and other borrowed funds	236	117	129	143	129	725	4,555	14,575	20,609
Other liabilities	7,719	14,371	2,314	230	148	1,767	671	3,442	30,662
Total liabilities	320,309	63,330	28,056	7,611	6,430	4,797	9,211	21,947	461,691

	2018								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Deposits by banks	30,467	2,609	593	569	409	267	250	62	35,226
Customer accounts	332,115	51,845	24,686	11,094	11,780	3,700	1,226	3,552	439,998
Derivative financial instruments[1]	45,909	137	141	9	91	31	679	456	47,453
Debt securities in issue	5,137	11,337	8,617	2,545	1,387	1,838	928	6,367	38,156
Due to parent companies and other related undertakings[2]	18,000	-	-	-	-	-	-	-	18,000
Subordinated liabilities and other borrowed funds	23	73	129	82	138	3,149	4,944	13,680	22,218
Other liabilities	19,538	8,650	4,003	889	497	883	383	12,220	47,063
Total liabilities	451,189	74,651	38,169	15,188	14,302	9,868	8,410	36,337	648,114

1 Derivatives are on a discounted basis
2 Represented to include 'Due to parent companies and other related undertakings'

Risk profile

Company

	2019								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Deposits by banks	**23,744**	**2,699**	**910**	**85**	**324**	**54**	**18**	**-**	**27,834**
Customer accounts	**125,274**	**26,316**	**9,682**	**3,318**	**1,756**	**915**	**731**	**262**	**168,254**
Derivative financial instruments[1]	**47,952**	**1**	**2**	**112**	**13**	**98**	**250**	**19**	**48,447**
Debt securities in issue	**5,330**	**13,096**	**8,909**	**1,159**	**1,669**	**514**	**2,759**	**3,455**	**36,891**
Due to parent companies and other related undertakings	**43,357**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**43,357**
Subordinated liabilities and other borrowed funds	**195**	**114**	**126**	**140**	**126**	**713**	**4,283**	**13,763**	**19,460**
Other liabilities	**6,907**	**9,935**	**761**	**167**	**93**	**1,736**	**405**	**2,640**	**22,644**
Total liabilities	**252,759**	**52,161**	**20,390**	**4,981**	**3,981**	**4,030**	**8,446**	**20,139**	**366,887**

	2018								
	One month or less $million	Between one month and three months $million	Between three months and six months $million	Between six months and nine months $million	Between nine months and one year $million	Between one year and two years $million	Between two years and five years $million	More than five years and undated $million	Total $million
Deposits by banks	24,881	2,331	378	159	296	32	28	48	28,153
Customer accounts	120,907	32,016	9,153	3,824	3,469	1,187	417	332	171,305
Derivative financial instruments[1]	45,124	137	141	9	91	31	679	456	46,668
Debt securities in issue	4,821	10,091	6,630	1,765	679	1,007	677	3,371	29,041
Due to parent companies and other related undertakings[2]	40,697	-	-	-	-	-	-	-	40,697
Subordinated liabilities and other borrowed funds	-	70	82	70	100	2,316	4,781	13,532	20,951
Other liabilities	15,091	5,843	1,933	684	47,599	612	259	2,814	74,835
Total liabilities	251,521	50,488	18,317	6,511	52,234	5,185	6,841	20,553	411,650

1 Derivatives are on a discounted basis
2 Represented to include 'Due to parent companies and other related undertakings'

Interest rate risk in the Banking Book (unaudited)

The following table provides the estimated impact on the Group's earnings of a 50 basis point parallel shock (up and down) across all yield curves. The sensitivities shown represent the estimated change in base case projected net interest income (NII), plus the change in interest rate implied income and expense from FX swaps used to manage Banking Book currency positions, under the two interest rate shock scenarios.

The interest rate sensitivities are indicative and based on simplified scenarios, estimating the aggregate impact of an instantaneous 50 basis point parallel shock across all yield curves over a one-year horizon, including the time taken to implement changes to pricing before becoming effective. The assessment assumes that non-interest rate sensitive aspects of the size and mix of the balance sheet remain constant and that there are no specific management actions in response to the change in rates. No assumptions are made in relation to the impact on credit spreads in a changing rate environment.

Significant modelling and behavioural assumptions are made regarding scenario simplification, market competition, pass through rates, asset and liability re-pricing tenors, and price flooring. In particular, the assumption that interest rates of all currencies and maturities shift by the same amount concurrently, and that no actions are taken to mitigate the impacts arising from this are considered unlikely. Reported sensitivities will vary over time due to a number of factors including changes in balance sheet composition, market conditions, customer behaviour and risk management strategy and should therefore not be considered an income or profit forecast.

Estimated one-year impact to earnings from a parallel shift in yield curves at the beginning of the period of:	2019			
	USD bloc	**SGD, HKD & KRW bloc**	**Other currency bloc**	**Total**
	$million	**$million**	**$million**	**$million**
+ 50 basis points	**(30)**	**40**	**70**	**80**
- 50 basis points	**40**	**(40)**	**(70)**	**(70)**

Estimated one-year impact to earnings from a parallel shift in yield curves at the beginning of the period of:	2018[1]			
	USD bloc	SGD, HKD & KRW bloc	Other currency bloc	Total
	$million	$million	$million	$million
+ 50 basis points	-	40	40	80
- 50 basis points	10	(40)	(40)	(70)

1 2018 balances have been restated due to discontinued operations (see note 40)

As at 31 December 2019, the Group estimates the one-year impact of an instantaneous, parallel increase across all yield curves of 50 basis points to be an earnings benefit of $80 million. The corresponding impact from a parallel decrease of 50 basis points would result in an earnings reduction of $70 million.

The benefit from rising interest rates is primarily from reinvesting at higher yields and from assets re-pricing faster and to a greater extent than deposits. The asymmetry between the up and down shock is primarily driven by differing behavioural assumptions, which are scenario specific. Overall NII sensitivity under both the up and down shock remains unchanged versus 31 December 2018. US dollar sensitivity reduced year on year, driven by Treasury Markets risk management activity to mitigate the risk to income in a falling rate environment. This impact was offset by changes in balance sheet composition in the 'Other currency' bloc.

The US dollar sensitivity is dampened further by the impact of funding Trading Book assets with Banking book liabilities. The reported sensitivities include the cost of Banking Book liabilities used to fund the Trading Book, however the revenue associated with the Trading Book positions is recognised in Trading Book income and is excluded from the reported sensitivities. If this were to be included, it would make the US dollar earnings sensitivity positively correlated with changes in US dollar interest rates.

Further information on the impact of changes in interest rates on the Trading Book is set out in the Market Risk section (pages 89 to 91).

Operational Risk (unaudited)

Operational Risks arise from the processes executed within the Group. Risks associated with these processes are mapped into a Process Universe where the Control Assessment Standards are applied. The Standards are benchmarked against regulatory requirements.

Operational Risk profile

The Operational Risk profile is the Bank's overall exposure to non-financial risk, at a given point in time, covering all Principal Risk Types. The Operational Risk profile comprises both Operational Risk events (including losses) and the current exposures to non-financial risks.

Operational Risk events and losses

Operational losses are one indicator of the effectiveness and robustness of the non-financial risk control environment. As at 31 December 2019 recorded operational losses for 2019 excluding monetary penalties to the US authorities and the Financial Conduct Authority (FCA) for legacy conduct and control issues are lower than 2018. Operational losses in 2019 comprise of unrelated non-systemic events which were not individually significant.

Losses in 2018 include incremental events that were recognised in 2019. Losses in 2018 have also been restated to reflect the recent group reorganisation. These exclude losses recognised in Standard Chartered Bank (Hong Kong) Limited, Standard Chartered Bank (China) Limited, Standard Chartered NEA Limited and Standard Chartered Bank (Taiwan) Limited.

As at 31 December 2019, the largest loss recorded for 2018 relates to a regulatory settlement on historic conduct and control issues related to Foreign Exchange trading and sales business of $40.0 million in the Trading and Sales Basel business line.

The Bank's profile of operational loss events in 2019 and 2018 is summarised in the table below. It shows the percentage distribution of gross operational losses by Basel business line.

Distribution of Operational Losses by Basel Business Line	% Loss	
	2019 [1]	2018 [2]
Agency Services	**0.2%**	0.8%
Commercial Banking	**15.8%**	10.2%
Corporate Finance	**-**	-
Corporate Items	**19.0%**	3.3%
Payment and Settlements	**4.6%**	8.8%
Retail Banking	**46.4%**	24.2%
Retail Brokerage	**0.2%**	0.0%
Trading and Sales	**13.8%**	52.7%

1 Excludes monetary penalties to the US authorities and the FCA

2 Restated to include incremental events recognised in 2019 and to reflect the recent group reorganisation. These exclude losses recognised in Standard Chartered Bank (Hong Kong) Limited, Standard Chartered Bank (China) Limited, Standard Chartered NEA Limited and Standard Chartered Bank (Taiwan) Limited.

The Bank's profile of operational loss events in 2019 and 2018 is also summarised by Basel event type in the table below. It shows the percentage distribution of gross operational losses by Basel event type.

Distribution of Operational Losses by Basel Event Type	% Loss	
	2019 [1]	2018 [2]
Business disruption and system failures	**1.5%**	4.2%
Clients products and business practices	**1.3%**	42.7%
Damage to physical assets	**0.0%**	0.0%
Employment practices and workplace safety	**0.1%**	0.1%
Execution delivery and process management	**67.0%**	39.3%
External fraud	**29.7%**	12.2%
Internal fraud	**0.4%**	1.5%

1 Excludes monetary penalties to the US authorities and the FCA

2 Restated to include incremental events recognised in 2019 and to reflect the recent group reorganisation. These exclude losses recognised in Standard Chartered Bank (Hong Kong) Limited, Standard Chartered Bank (China) Limited, Standard Chartered NEA Limited and Standard Chartered Bank (Taiwan) Limited.

Other principal risks (unaudited)

Losses arising from operational failures for other principal risks (for example: Compliance, Conduct, Reputational, Information and Cyber Security, and Financial Crime Risk) are reported as operational losses. Operational losses do not include Operational Risk-related credit impairments.

Risk profile

Enterprise Risk Management Framework

Following the creation of the Greater China & North Asia hub in October 2019, the PLC Group has operated under a two-hub governance model. As the Group covers the vast majority of the PLC Group's total footprint, and the Group's operations are global, the same risks and uncertainties will apply to both the Group and PLC Group. Given this level of overlap, the board and committee governance of the Company runs in parallel with that of PLC, but the Standard Chartered Bank Board of Directors ("Court") oversee and manage the risks specific to the Group. Ultimate responsibility for risk management rests with the Court while executive responsibility rests with two management- level committees namely Standard Chartered Bank Executive Risk Committee and Standard Chartered Bank Asset and Liability Management Committee. The Company aims to adopt the Standard Chartered PLC Enterprise Risk Management Framework and elaborate on its own Risk Appetite at the legal entity level in the course of 2020. Therefore, the risk management approach described across this Risk Review is written in the context of PLC and is consistent with the risk management practices of the Company.

Effective risk management is essential in delivering consistent and sustainable performance for all of our stakeholders and is therefore a central part of the financial and operational management of PLC Group. We add value to clients and the communities in which we operate by taking and managing appropriate levels of risk, which in turn generates returns for shareholders

The Enterprise Risk Management Framework (ERMF) enables the PLC Group to manage enterprise-wide risks, with the objective of maximising risk-adjusted returns while remaining within our Risk Appetite. The ERMF has been designed with the explicit goal of improving risk management, and since its launch in January 2018, it has been embedded across PLC Group and rolled out to its branches and subsidiaries.

In 2019, we completed a comprehensive review of the ERMF and the following changes were approved by the Board:

- Model Risk was elevated to a Principal Risk Type (effective in 2020) with enhancements to our approach to Model Risk management
- Climate Risk was introduced as a material cross-cutting risk that, while not a Principal Risk Type in itself, manifests through other relevant Principal Risk Types
- A process of self-assessments performed by the branches and subsidiaries to assess the overall adoption and effectiveness of the ERMF locally was formalised

Our existing Principal Risk Types were updated as follows:

- Country Risk coverage was expanded from Country Cross-Border Risk to Gross Country Risk
- Principles related to environment and social risks, defence and dual use goods were incorporated under Reputational Risk
- Fraud Risk was reclassified as a risk sub-type from Operational Risk to Financial Crime

The revised ERMF was approved on 12 December 2019 and became effective in January 2020.

Risk Culture

The PLC Group's risk culture provides guiding principles for the behaviours expected from our people when managing risk. The Board has approved a risk culture statement that encourages the following behaviours and outcomes:

- An enterprise-level ability to identify and assess current and future risks, openly discuss these and take prompt actions
- The highest level of integrity by being transparent and proactive in disclosing and managing all types of risks
- A constructive and collaborative approach in providing oversight and challenge, and taking decisions in a timely manner
- Everyone to be accountable for their decisions and feel safe in using their judgement to make these considered decisions

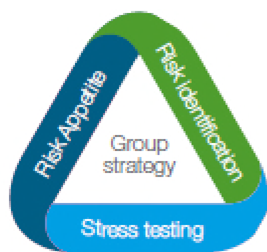
We acknowledge that banking inherently involves risk-taking and undesired outcomes will occur from time to time; however, we shall take the opportunity to learn from our experience and formalise what we can do to improve. We expect managers to demonstrate a high awareness of risk and control by self-identifying issues and managing them in a manner that will deliver lasting change.

Strategic risk management

The PLC Group approaches strategic risk management as follows:

- As part of the strategy review process, conducting an impact analysis on the risk profile from growth plans, strategic initiatives and business model vulnerabilities with the aim of proactively identifying and managing new risks or existing risks that need to be reprioritised
- As part of the strategy review process, confirming that growth plans and strategic initiatives can be delivered within the approved Risk Appetite and/or proposing additional Risk Appetite for Board consideration
- Validating the Corporate Plan against the approved or proposed Risk Appetite Statement to the Board. The Board approves the strategy review and the five-year Corporate Plan with a confirmation from the Group Chief Risk Officer that it is aligned with the ERMF and the PLC Group Risk Appetite Statement where projections allow

Risk profile



Roles and Responsibilities

Senior Managers Regime

Roles and responsibilities under the ERMF are aligned to the objectives of the Senior Managers Regime. The Group Chief Risk Officer is responsible for the overall development and maintenance of the PLC Group's ERMF and for identifying material risk types to which our business may be potentially exposed. The Group Chief Risk Officer delegates effective implementation of the Risk Type Frameworks to Risk Framework Owners who provide second line of defence oversight for the Principal Risk Types. In addition, the Group Chief Risk Officer has been formally identified as the relevant Senior Manager responsible for Climate Risk management as it relates to financial and non-financial risks arising from climate change. This does not include elements of corporate social responsibility, the PLC Group's contribution to climate change and/or Sustainable Finance strategy in supporting a low-carbon transition, which are the responsibility of other relevant Senior Managers.

The Risk function

The Risk function is responsible for the sustainability of our business through good management of risk across the PLC Group by providing oversight and challenge, thereby ensuring that business is conducted in line with regulatory expectations.

The Group Chief Risk Officer directly manages the Risk function, which is separate and independent from the origination, trading and sales functions of the businesses. The Risk function is responsible for:

- Maintaining the ERMF, ensuring that it remains relevant and appropriate to our business activities, and is effectively communicated and implemented across PLC Group, and administering related governance and reporting processes
- Upholding the overall integrity of our risk and return decisions to ensure that risks are properly assessed, that these decisions are made transparently on the basis of this proper assessment and that risks are controlled in accordance with the PLC Group's standards and Risk Appetite
- Overseeing and challenging the management of Principal Risk Types under the ERMF

The independence of the Risk function ensures that the necessary balance in making risk and return decisions is not compromised by short-term pressures to generate revenues.

In addition, the Risk function is a centre of excellence that provides specialist capabilities of relevance to risk management processes in the broader organisation.

The Risk function supports the PLC Group's commitment to be Here for good by building a sustainable framework that places regulatory and compliance standards and a culture of appropriate conduct at the forefront of our agenda, in a manner proportionate to the nature, scale and complexity of our business.

In January 2019, we integrated Conduct, Financial Crime and Compliance ("CFCC") risks under a single function under the Management Team leadership of the Group Head, Corporate Affairs, Brand & Marketing and CFCC. CFCC works alongside the Risk function within the framework of the ERMF to deliver a unified second line of defence.

Three lines of defence model

Roles and responsibilities for risk management are defined under a three lines of defence model. Each line of defence has a specific set of responsibilities for risk management and control as shown in the table:

Lines of Defence	Definition	Key responsibilities include
1st	The businesses and functions engaged in or supporting revenue generating activities that own and manage risks	→ Propose the risks required to undertake revenue-generating activities → Identify, assess, monitor and escalate risks and issues to the second line and senior management[1] and promote a healthy risk culture and good conduct → Manage risks within Risk Appetite, set and execute remediation plans and ensure laws and regulations are being complied with → Ensure systems meet risk data aggregation, risk reporting and data quality requirements set by the second line
2nd	The control functions independent of the first line that provide oversight and challenge of risk management to provide	→ Identify, monitor and escalate risks and issues to the Group Chief Risk Officer, senior management[1] and the Board and promote a healthy risk culture and good conduct

Risk profile

Lines of Defence	Definition	Key responsibilities include
	confidence to the Group Chief Risk Officer, senior management and the Court	→ Oversee and challenge first line risk-taking activities and review first line risk proposals → Propose Risk Appetite to the Court, monitor and report adherence to Risk Appetite and intervene to curtail business if it is not in line with existing or adjusted Risk Appetite, there is material non-compliance with policy requirements or when operational controls do not effectively manage risk → Set risk data aggregation, risk reporting and data quality requirements → Ensure that there are appropriate controls to comply with applicable laws and regulations, and escalate significant non-compliance matters to senior management and the appropriate committees
3rd	The Internal Audit function provides independent assurance on the effectiveness of controls that support first line's risk management of business activities, and the processes maintained by the second line	→ Independently assess whether management has identified the key risks in the business and whether these are reported and governed in line with the established risk management processes → Independently assess the adequacy of the design of controls and their operating effectiveness

1 Senior management in this table refers to individuals designated as Senior Management Functions under the FCA and PRA Senior Managers' Regime

Risk Appetite and profile

We recognise the following constraints which determine the risks that we are willing to take in pursuit of our strategy and the development of a sustainable business:

- **Risk capacity** is the maximum level of risk the Group can assume, given its current capabilities and resources, before breaching constraints determined by capital and liquidity requirements and internal operational capability (including but not limited to technical infrastructure, risk management capabilities, expertise), or otherwise failing to meet the expectations of regulators and law enforcement agencies
- **Risk appetite** will be defined by the Group and approved by the Court. It is the maximum amount and type of risk we are willing to assume in pursuit of our strategy. Risk Appetite cannot exceed risk capacity

The Board has approved a Risk Appetite Statement which is underpinned by a set of financial and operational control parameters known as Risk Appetite metrics and their associated thresholds. These directly constrain the aggregate risk exposures that can be taken across PLC Group. PLC Group Risk Appetite is reviewed at least on an annual basis to ensure that it is fit for purpose and aligned with strategy, and focus is given to emerging or new risks. The Risk Appetite Statement is supplemented by an overarching statement outlining PLC Group's Risk Appetite principles.

Risk Appetite Principles

The PLC Group Risk Appetite is defined in accordance with risk management principles that inform our overall approach to risk management and our risk culture. We follow the highest ethical standards and ensure a fair outcome for our clients, as well as facilitating the effective operation of financial markets, while at the same time meeting expectations of regulators and law enforcement agencies. We set our Risk Appetite to enable us to grow sustainably and to avoid shocks to earnings or our general financial health, as well as manage our Reputational Risk in a way that does not materially undermine the confidence of our investors and all internal and external stakeholders.

Risk Appetite Statement

We will not compromise adherence to its Risk Appetite in order to pursue revenue growth or higher returns.

PLC Group Risk Appetite is supplemented by risk control tools such as granular level limits, policies, standards and other operational control parameters that are used to keep our risk profile within Risk Appetite. The PLC Group's risk profile is its overall exposure to risk at a given point in time, covering all applicable risk types. Status against Risk Appetite is reported to the Board, Board Risk Committee and the PLC Group Risk Committee, including the status of breaches and remediation plans where applicable. To keep our risk profile within Risk Appetite (and therefore also risk capacity), we have cascaded critical PLC Group Risk Appetite metrics across our Principal Risk Types to our footprint markets with significant business operations. Country Risk Appetite is managed at a country or local level with PLC Group and regional oversight. In addition to Risk Appetite Statements for the Principal Risk Types, the PLC Group also has a Risk Appetite Statement for Climate Risk which is a material cross-cutting risk that can manifest through other risk types. We aim to measure and manage financial and non-financial risks from climate change, and reduce emissions related to our own activities and those related to the financing of clients in alignment with the Paris Agreement.

The PLC Group Risk Committee, the PLC Group Financial Crime Risk Committee, the PLC Group Non-Financial Risk Committee and the PLC Group Asset and Liability Committee are responsible for ensuring that our risk profile is managed in compliance with the Risk Appetite set by the Board. The Board Risk Committee and the Board Financial Crime Risk Committee (for Financial Crime Compliance) advise the Board on the Risk Appetite Statement and monitor the PLC Group's compliance with it.

Risk profile

Risk identification and assessment

Identification and assessment of potentially adverse risk events is an essential first step in managing the risks of any business or activity. To ensure consistency in communication we use Principal Risk Types to classify our risk exposures. Nevertheless, we also recognise the need to maintain an overall perspective since a single transaction or activity may give rise to multiple types of risk exposure, risk concentrations may arise from multiple exposures that are closely correlated, and a given risk exposure may change its form from one risk type to another. There are also sources of risk that arise beyond our own operations such as the dependency on suppliers for the provision of services and technology. As we remain accountable for risks arising from the actions of such third parties, failure to adequately monitor and manage these relationships could materially impact our ability to operate and could have an impact on our ability to continue to provide services that are material to our business.

To facilitate risk identification and assessment, we maintain a dynamic risk-scanning process with inputs from the internal and external risk environment, as well as potential threats and opportunities from the business and client perspectives. We maintain an inventory of the Principal Risk Types and risk sub-types that are inherent to the strategy and business model; and emerging risks that include near-term as well as longer-term uncertainties. Near-term risks are those that are on the horizon and can be measured and mitigated to some extent, while uncertainties are longer-term matters that should be on the radar but are not yet fully measurable.

The Group Chief Risk Officer and the PLC Group Risk Committee review regular reports on the risk profile for the Principal Risk Types, adherence to the approved Risk Appetite and the PLC Group risk inventory including emerging risks. They use this information to escalate material developments in each risk event and make recommendations to the Board on any potential changes to our Corporate Plan.

Stress testing

The objective of stress testing is to support the PLC Group in assessing that it:

- Does not have a portfolio with excessive risk concentration that could produce unacceptably high losses under severe but plausible scenarios
- Has sufficient financial resources to withstand severe but plausible scenarios
- Has the financial flexibility to respond to extreme but plausible scenarios
- Understands the key business model risks and considers what kind of event might crystallise those risks – even if extreme with a low likelihood of occurring – and identifies as required, actions to mitigate the likelihood or impact as required.

Enterprise stress tests include Capital and Liquidity Adequacy Stress Tests, including in the context of recovery and resolution, and stress tests that assess scenarios where our business model becomes unviable, such as reverse stress tests.

Stress tests are performed at PLC Group, country, business and portfolio level. Bespoke scenarios are applied to our traded and liquidity positions as described in the sections on Traded Risk (page 112), and Capital and Liquidity Risk (page 115). In addition to these, our stress tests also focus on the potential impact of macroeconomic, geopolitical and physical events on relevant regions, client segments and risk types.

The Board delegates approval of stress test submissions to the Bank of England to the Board Risk Committee, who review the recommendations from the Stress Testing Committee. The Stress Testing Committee is appointed by the PLC Group Risk Committee to review and challenge the stress test scenarios, assumptions and results.

Based on the stress test results, the Group Chief Risk Officer and Group Chief Financial Officer can recommend strategic actions to the Board to ensure that the PLC Group strategy remains within the Board-approved Risk Appetite.

Principal Risk Types

Principal Risk Types are risks that are inherent in our strategy and business model and have been formally defined in the PLC Group's ERMF. These risks are managed through distinct Risk Type Frameworks (RTFs) which are approved by the Group Chief Risk Officer. The Principal Risk Types and associated Risk Appetite Statements are approved by the Board.

In 2019, we performed a review of our Principal Risk Types and elevated Model Risk to a Principal Risk Type (effective in 2020) and implemented enhancements undertaken to our approach to Model Risk management. In addition to Principal Risk Types, we may be exposed to material cross-cutting risks that manifest through other Principal Risk Types. The Group Chief Risk Officer can direct risk management frameworks and appoint Risk Framework Owners to perform second line of defence activities for such cross-cutting risks. We currently recognise Climate Risk as a material cross-cutting risk. Climate Risk is defined as the potential for financial loss and non-financial detriments arising from climate change and society's response to it.

In the coming years we will consider if existing Principal Risk Types or incremental risks should be treated as cross-cutting risks. The table below shows PLC Group's current Principal Risk Types.

Principal Risks Types	Definition
Credit risk	Potential for loss due to the failure of a counterparty to meet its agreed obligations to pay the PLC Group
Country risk	Potential for losses due to political or economic events in a country
Traded risk	Potential for loss resulting from activities undertaken by PLC Group in financial markets

Risk profile

Principal Risks Types	Definition
Capital & liquidity risk	Capital: Potential for insufficient levels, composition or distribution of capital to support our normal activities
	Liquidity: Risk that we may not have sufficient stable or diverse sources of funding to meet our obligations as they fall due
Operational risk	Potential for loss resulting from inadequate or failed internal processes and systems, human error, or from the impact of external events (including legal risks)
Reputational risk	Potential for damage to the franchise, resulting in loss of earnings or adverse impact on market capitalisation because of stakeholders taking a negative view of the organisation, its actions or inactions – leading stakeholders to change their behaviour
Compliance	Potential for penalties or loss to PLC Group, or for an adverse impact to our clients, stakeholders or the integrity of markets in which we operate through a failure on our part to comply with laws or regulations
Conduct	Risk of detriment to PLC Group's clients, investors, shareholders, market integrity, competition and counter-parties or risk of detriment from the inappropriate supply of financial services, including instances of willful or negligent misconduct
Information and cyber security	Potential for loss from a breach of confidentiality, integrity and availability of the PLC Group's information systems and assets through cyber-attack, insider activity, error or control failure
Financial crime	Potential for legal or regulatory penalties, material financial loss or reputational damage resulting from the failure to comply with applicable laws and regulations relating to international sanctions, anti-money laundering and anti-bribery and corruption, and fraud
Model Risk*	Potential loss that may occur as a consequence of decisions or the risk of mis-estimation that could be principally based on the output of models, due to errors in the development, implementation or use of such models

* Effective from January 2020

ERMF effectiveness Reviews

The Group Chief Risk Officer is responsible for annually affirming the effectiveness of the ERMF to the Board Risk Committee. To facilitate this, an ERMF effectiveness review was established in 2018, which follows the principle of evidence-based self-assessments for all the Risk Type Frameworks and relevant policies.

The annual ERMF effectiveness review, first introduced in 2018, was conducted in 2019 and enables measurement of progress against the 2018 baseline. The 2019 effectiveness review has shown that:

- Since the launch of the ERMF in 2018, the focus in 2019 has been on effective embedding of the framework across the organisation and we have made progress on overall effectiveness
- We have an established risk taxonomy through the Principal Risk Types and risk sub-types which provides a common risk language across the three lines of defence and ultimate risk oversight by senior management and the Board. There is also stronger first line ownership of risks
- In 2019, risk management for both financial and non-financial risks improved year-on-year. Financial risks continue to be managed more effectively on a relative basis as compared with the non-financial risks. This reflects the maturity of these Risk Type Frameworks and the underlying risk management practices
- Self-assessments performed in our footprint markets reflect the use of the ERMF and Principal Risk Types, with reinforced first line ownership of risks. Country and regional risk committees are playing a more active role in managing and overseeing material issues arising in countries. Automation opportunities for manual risk oversight processes will continue to be explored in 2020

Ongoing structured ERMF effectiveness reviews enable us to identify improvement opportunities and proactively build plans to address them. Over the course of 2020, we aim to further strengthen our risk management practices and target improvements in the management of non-financial risk types.

Risk profile

Executive and Board risk oversight at the PLC Group

Overview

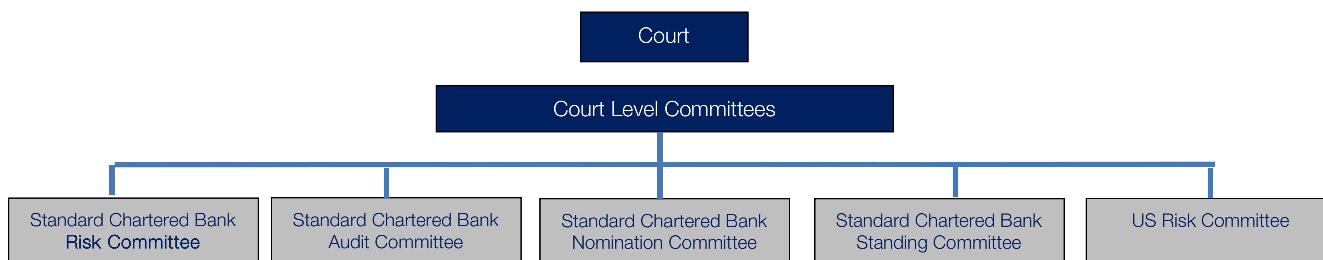
The Board has ultimate responsibility for risk management and is supported by the six Board-level committees. The Board approves the ERMF based on the recommendation from the Board Risk Committee, which also recommends the PLC Group Risk Appetite Statement for all Principal Risk Types other than Financial Crime Risk. Financial Crime Risk Appetite is reviewed and recommended to the Board by the Board Financial Crime Risk Committee.

In addition, the Brand Values and Conduct Committee oversees the brand, valued behaviours, reputation and conduct of the PLC Group. The Committee reviews the effectiveness of the PLC Group's Conduct Risk Type Framework and manages reputational risk in line with the Reputational Risk Type Framework.

Executive and Court risk oversight at the Group

Overview

The Court has ultimate responsibility for the Group's risk management and is supported by the five Court-level committees.



The Court comprises of the PLC Board of Directors and two additional executive directors. Since the appointment of the PLC non-executive directors on 1 April 2019 the boards of PLC and Company have met concurrently, and a number of the Company committees have the same committee membership as the equivalent PLC committees.

Standard Chartered Bank Audit Committee:

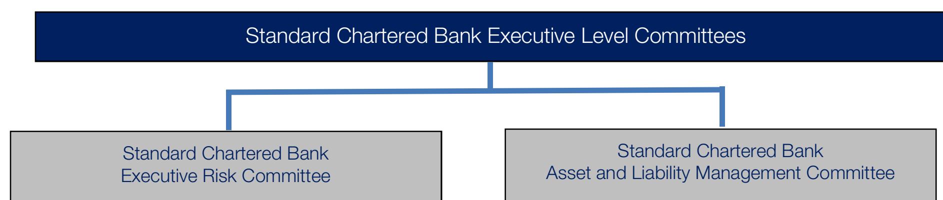
The Standard Chartered Bank Audit Committee is concerned with the oversight and review of financial, audit, internal control and non-financial crime issues and sits as a dual committee with the Board Audit Committee.

Standard Chartered Bank Risk Committee:

The Standard Chartered Bank Risk Committee is concerned with the oversight and review of principal risks and sits as a dual committee with the Board Risk Committee.

Combined Unites States Operations and Risk Committee (US Risk Committee):

The US Risk Committee is required to meet the requirements of the Dodd-Frank Act Section 165 Enhanced Prudential Standard Final Rules as released by the Federal Reserve Bank. It has prescribed responsibilities in relation to overseeing the risk management framework, approving and overseeing the implementation of the risk management policies and also specific review and approval responsibilities in relation to liquidity risk management. Membership of the Committee is comprised of the Group Chief Risk Officer, the Chief Executive Officer, Europe and Americas and an independent non-executive director of the Company or PLC.



The Company's Management Team comprises of the members of the PLC Group Management Team including the Group Chief Executive Officer, the Group Chief Risk Officer and the Group Chief Financial Officer. Their responsibilities under the Senior Management Regime cover both the PLC Group and the Group.

The Company has two management level committees, namely the Standard Chartered Bank Executive Risk Committee and Standard Chartered Bank Asset and Liability Management Committee.

Standard Chartered Bank Executive Risk Committee

The Standard Chartered Bank Executive Risk Committee is responsible for ensuring the effective management of risk throughout the Group in support of the Group's strategy. The Group Chief Risk Officer chairs the Committee, whose members are drawn from the PLC Group's Management Team. The Committee determines the ERMF for the Group, including the delegation of any part of its authorities to appropriate individuals or properly constituted sub-committees. The Committee requests and receives relevant information to fulfil its governance mandates relating to the risks to which the Group is exposed. As with the Standard Chartered Bank Risk Committee, the Standard Chartered Bank Executive Risk Committee and Standard Chartered Bank Asset and Liability Management Committee receive reports that

include information on risk measures, Risk Appetite metrics and thresholds, risk concentrations, forward-looking assessments, updates on specific risk situations and actions agreed by these committees to reduce or manage risk.

Standard Chartered Bank Asset and Liability Management Committee

The Standard Chartered Bank Asset and Liability Management Committee is chaired by the Regional CEO, Europe and Americas. Its members are drawn principally from the Management Team. The Committee is responsible for determining the Group's approach to balance sheet management and ensuring that, in executing the Group's strategy, the Group operates within internally approved Risk Appetite and external requirements relating to capital, liquidity and leverage risk. It is also responsible for policies relating to balance sheet management, including management of our liquidity and capital adequacy, structural foreign exchange, interest rate and tax exposure.

Risk profile

Principal risks

We manage and control our Principal Risk Types through distinct risk type frameworks, policies and Board-approved Risk Appetite.

Credit risk

PLC Group defines Credit Risk as the potential for loss due to the failure of a counterparty to meet its agreed obligations to pay the PLC Group

Risk Appetite Statement
PLC Group manages its credit exposures following the principle of diversification across products, geographies, client segments and industry sectors

Roles and responsibilities

The Credit Risk Type Frameworks for the PLC Group are set and owned by the Chief Risk Officers for the business segments. The Credit Risk function is the second line control function responsible for independent challenge, monitoring and oversight of the Credit Risk management practices of the business and functions engaged in or supporting revenue-generating activities which constitute the first line of defence. In addition, they ensure that Credit Risks are properly assessed and transparent; and that credit decisions are controlled in accordance with the PLC Group's Risk Appetite, credit policies and standards. For the Retail Banking segment, the Retail Risk function is also responsible for specific activities such as collections.

Mitigation

Segment-specific policies are in place for the management of Credit Risk.

The Credit Policy for Corporate & Institutional Banking and Commercial Banking sets the principles that must be followed for the end-to-end credit process including credit initiation, credit grading, credit assessment, structuring of product, Credit Risk mitigation, monitoring and control, and documentation.

The Retail Credit Risk Management Policy sets the principles for the management of retail and business banking lending, account and portfolio monitoring, collections management and forbearance programmes. In addition, there are other PLC Group-wide policies integral to Credit Risk management such as those relating to Risk Appetite, Model Risk, stress testing, and impairment provisioning.

The PLC Group also set out standards for the eligibility, enforceability and effectiveness of Credit Risk mitigation arrangements. Potential credit losses from a given account, client or portfolio are mitigated using a range of tools i.e. collateral, netting agreements, credit insurance, credit derivatives and guarantees.

Risk mitigants are also carefully assessed for their market value, legal enforceability, correlation and counterparty risk of the protection provider.

Collateral must be valued prior to drawdown and regularly thereafter as required to reflect current market conditions, the probability of recovery and the period of time to realise the collateral in the event of liquidation. The PLC Group also seeks to diversify its collateral holdings across asset classes and markets.

Where guarantees, credit insurance, standby letters of credit or credit derivatives are used as Credit Risk mitigation, the creditworthiness of the protection provider is assessed and monitored using the same credit approval process applied to the obligor.

Governance committee oversight

At the Board level, the Board Risk Committee oversees the effective management of Credit Risk.

At the executive level, the PLC Group Risk Committee appoints sub-committees for the management of Credit Risk – in particular the Corporate, Commercial and Institutional Banking Risk Committee (CCIBRC), the Private Banking Process Governance and Risk Committee, and the regional risk committees for ASEAN & South Asia and Africa & Middle East. These committees and the Standard Chartered Bank Executive Risk Committee are responsible for overseeing the Credit Risk profile of the PLC Group within the respective business areas and regions. Meetings are held regularly, and the committees monitor all material Credit Risk exposures, as well as key internal developments and external trends, and ensure that appropriate action is taken.

Decision-making authorities and delegation

The Credit Risk Type Frameworks are the formal mechanism which delegate Credit Risk authorities cascading from the Group Chief Risk Officer, as the Senior Manager of the Credit Risk Type, to individuals such as the business segments' Chief Risk Officers. Named individuals further delegate credit authorities to individual credit officers by applying delegated credit authority matrices, which determine the maximum limits based on risk-adjusted scales by customer type or portfolio.

Credit Risk authorities are reviewed at least annually to ensure that they remain appropriate. In Corporate & Institutional Banking, Commercial Banking and Private Banking, the individuals delegating the Credit Risk authorities perform oversight by reviewing a sample of the limit applications approved by the delegated credit officers on a monthly basis. In Retail Banking, credit decision systems and tools (e.g., application scorecards) are used for credit decisioning. Where manual credit decisions are applied, these are subject to periodic quality control assessment and assurance checks.

Monitoring

We regularly monitor credit exposures, portfolio performance, and external trends that may impact risk management outcomes. Internal risk management reports that are presented to risk committees contain information on key political and economic trends across major portfolios and countries; portfolio delinquency and loan impairment performance.

In 2019, the PLC Group introduced an Industry Portfolio Mandate (IPM), developed jointly by the Corporate & Institutional Banking and Commercial Banking Business and Risk function to provide a forward-looking assessment of risk and simplification of processes while increasing focus on clients. The IPM is a single platform from which business strategy, risk considerations and client planning are performed with one consensus view which comprises external industry outlook, portfolio overviews, Risk Appetite, underwriting principles and stress test

insights.

In Corporate & Institutional Banking and Commercial Banking, clients and portfolios are subjected to additional review when they display signs of actual or potential weakness; for example, where there is a decline in the client's position within the industry, financial deterioration, a breach of covenants, or non-performance of an obligation within the stipulated period. Such accounts are subjected to a dedicated process overseen by the Credit Issues Committees in the relevant countries where client account strategies and credit grades are re-evaluated. In addition, remedial actions including exposure reduction, security enhancement, or exiting the account could be undertaken, and certain accounts could also be transferred into the control of Group Special Assets Management (GSAM), which is our specialist recovery unit for Corporate & Institutional Banking and Commercial Banking, and Private Banking that operates independently from our main business.

For Retail Banking exposures, portfolio delinquency trends are monitored on an ongoing basis. Account monitoring is based on behaviour scores and bureau performance (where available). Accounts that are past due (or perceived as high risk and not yet past due) are subject to a collections or recovery process managed by a specialist function independent from the origination function. In some countries, aspects of collections and recovery activities are outsourced.

Credit rating and measurement

All credit proposals are subject to a robust Credit Risk assessment. It includes a comprehensive evaluation of the client's credit quality, including willingness, ability and capacity to repay. The primary lending consideration is based on the client's credit quality and the repayment capacity from operating cashflows for counterparties; and personal income or wealth for individual borrowers. The risk assessment gives due consideration to the client's liquidity and leverage position. Where applicable, the assessment includes a detailed analysis of the Credit Risk mitigation arrangements to determine the level of reliance on such arrangements as the secondary source of repayment in the event of a significant deterioration in a client's credit quality leading to default.

Risk measurement plays a central role, along with judgement and experience, in informing risk-taking and portfolio management decisions. Since 1 January 2008, we have used the advanced internal ratings-based approach under the Basel regulatory framework to calculate Credit Risk capital requirements. The PLC Group has also established a global programme to undertake a comprehensive assessment of capital requirements necessary to be implemented to meet the latest revised Basel III finalisation (Basel IV) regulations.

A standard alphanumeric Credit Risk grade system is used for Corporate & Institutional Banking and Commercial Banking. The numeric grades run from 1 to 14 and some of the grades are further sub-classified. Lower numeric credit grades are indicative of a lower likelihood of default. Credit grades 1 to 12 are assigned to performing customers, while credit grades 13 and 14 are assigned to non-performing or defaulted customers.

Retail Banking internal ratings-based portfolios use application and behavioural credit scores that are calibrated to generate a probability of default and then mapped to the standard alphanumeric Credit Risk grade system. We refer to external ratings from credit bureaus (where these are available); however, we do not rely solely on these to determine Retail Banking credit grades.

Advanced internal ratings-based models cover a substantial majority of our exposures and are used in assessing risks at a customer and portfolio level, setting strategy and optimising our risk-return decisions. Material internal ratings-based risk measurement models are approved by the Model Risk Committee. Prior to review and approval, all internal ratings-based models are validated in detail by a model validation team which is separate from the teams that develop and maintain the models. Models undergo annual validation by the model validation team. Reviews are also triggered if the performance of a model deteriorates materially against predetermined thresholds during the ongoing model performance monitoring process which takes place between the annual validations.

Credit Concentration Risk

Credit Concentration Risk may arise from a single large exposure to a counterparty or a group of connected counterparties, or from multiple exposures across the portfolio that are closely correlated. Large exposure Concentration Risk is managed through concentration limits set for a counterparty or a group of connected counterparties based on control and economic dependence criteria. Risk Appetite metrics are set at portfolio level and monitored to control concentrations, where appropriate, by industry, specific products, tenor, collateralisation level, top 20 concentration and exposure to holding companies. Single name credit concentration thresholds are set by client group depending on credit grade, and by customer segment. For concentrations that are material at a Group level, breaches and potential breaches are monitored by the respective governance committees and reported to the PLC Group Risk and Board Risk Committees.

Credit impairment

Expected credit losses are determined for all financial assets that are classified as amortised cost or fair value through other comprehensive income. Expected credit losses are computed as an unbiased, probability-weighted amount determined by evaluating a range of plausible outcomes, the time value of money, and considering all reasonable and supportable information including that which is forward looking. When determining forward looking expected credit losses, the PLC Group also considers a set of critical global or country-specific macroeconomic variables that influence Credit Risk. For more detailed information on macroeconomic data feeding into IFRS 9 expected credit losses calculations, please refer to page 81.

At the time of origination or purchase of a non-credit-impaired financial asset (stage 1), expected credit losses represent cash shortfalls arising from possible default events up to 12 months into the future from the balance sheet date. Expected credit losses continue to be determined on this basis until there is a significant increase in the Credit Risk of the asset (stage 2), in which case an expected credit loss provision is recognised for default events that may occur over the lifetime of the asset. If there is observed objective evidence of credit impairment or default (stage 3), expected credit losses continue to be measured on a lifetime basis.

In 2019, the Board approved a new Risk Appetite metric to monitor the stage 1 and stage 2 expected credit losses from assets originated in the last 12 months. The Risk Appetite metric provided the Board with oversight of the quality of assets being originated and to ensure that they are aligned to the PLC Group's strategy.

Risk profile

The PLC Group's definition of default is aligned with the regulatory definition of default as set out in European Capital Requirements Regulation (CRR178) and related guidelines, where the obligor is at least 90 days past due in respect of principal and/or interest. A loan is considered past due (or delinquent), when the customer has failed to make a principal or interest payment in accordance with the loan contract. Financial assets are also considered to be credit-impaired where the obligors are unlikely to pay on the occurrence of one or more observable events that have a detrimental impact on the estimated future cashflows of the financial asset.

In Corporate & Institutional Banking, Commercial Banking and Private Banking, a loan is considered credit-impaired where analysis and review indicate that full payment of either interest or principal, including the timeliness of such payment, is questionable, or as soon as payment of interest or principal is 90 days overdue. These credit-impaired accounts are managed by our specialist recovery unit (GSAM). Where appropriate, the non-material credit impaired accounts are co-managed with the business under the supervision of GSAM.

In Retail Banking, a loan is considered credit-impaired as soon as payment of interest or principal is 90 days overdue or meets other objective evidence of impairment such as bankruptcy, debt restructuring, fraud or death. Financial assets are written off when there is no realistic prospect of recovery and the amount of loss has been determined. For Retail Banking assets, a financial asset is written off when it meets certain threshold conditions which are set at the point where empirical evidence suggests that the client is unlikely to meet their contractual obligations, or a loss of principal is expected.

Estimating the amount and timing of future recoveries involves significant judgement and considers the assessment of matters such as future economic conditions and the value of collateral, for which there may not be a readily accessible market. The total amount of the PLC Group's impairment provision is inherently uncertain, being sensitive to changes in economic and credit conditions across the regions in which the PLC Group operates. For further details on sensitivity analysis of expected credit losses under IFRS 9, please refer to page 81.

Stress testing

Stress testing is a forward-looking risk management tool that constitutes a key input into the identification, monitoring and mitigation of Credit Risk, as well as contributing to Risk Appetite calibration. Periodic stress tests are performed on the credit portfolio/segment to anticipate vulnerabilities from stressed conditions and initiate timely right-sizing and mitigation plans. Additionally, multiple enterprise-wide and country-level stress tests are mandated by regulators to assess the ability of the PLC Group and its subsidiaries to continue to meet their capital requirements during a plausible, adverse shock to the business. These regulatory stress tests are conducted in line with the principles stated in the Enterprise Stress Testing Policy. The PLC Group's enterprise stress testing programme adopted IFRS 9 in full in 2018 and all enterprise stress tests conducted during 2019 were performed on an IFRS 9 basis. Stress tests for key portfolios are reviewed by the Credit Risk Type Framework Owners (or delegates) as part of portfolio oversight; and matters considered material to the PLC Group are escalated to the Group Chief Risk Officer and respective regional risk committees.

Risk profile

Traded risk

PLC Group defines Traded risk as the potential for loss resulting from activities undertaken by the PLC Group in financial markets

Risk Appetite Statement

PLC Group should control its trading portfolio and activities to ensure that Traded Risk losses (financial or reputational) do not cause material damage to the PLC Group's franchise

The Traded Risk Type Framework (TRTF) brings together all risk types exhibiting risk features common to Traded Risk. These risk sub-types include Market Risk, Counterparty Credit Risk, Issuer Risk, XVA, Algorithmic Trading and Pension Risk. Traded Risk Management (TRM) is the core risk management function supporting market- facing businesses, specifically Financial Markets and Treasury Markets.

Roles and responsibilities

The TRTF, which sets the roles and responsibilities in respect of Traded Risk for the PLC Group, is owned by the Global Head, Traded Risk Management. The front office, acting as first line of defence, is responsible for the effective management of risks within the scope of its direct organisational responsibilities set by the Board. The TRM function is the second line control function that performs independent challenge, monitoring and oversight of the Traded Risk management practices of the first line of defence. The first and second lines of defence are supported by the organisation structure, job descriptions and authorities delegated by Traded Risk control owners.

Mitigation

The PLC Group controls its trading portfolio and activities within Risk Appetite by assessing the various Traded Risk factors. These are captured and analysed using proprietary and custom-built analytical tools, in addition to risk managers' specialist market and product knowledge.

TRM has a framework, policies and standards in place ensuring that appropriate Traded Risk limits are implemented. The PLC Group's Traded Risk exposure is aligned with its appetite for Traded Risk, and assessment of potential losses that might be incurred by the PLC Group as a consequence of extreme but plausible events.

Traded Risk limits are applied as required by the TRTF and related standards.

All businesses incurring Traded Risk must do so in compliance with the TRTF. The TRTF requires that Traded Risk limits are defined at a level appropriate to ensure that the PLC Group remains within Traded Risk Appetite. All exposures throughout the PLC Group that the TRM function is responsible for aggregate up to TRM's PLC Group-level reporting. This aggregation approach ensures that the limits structure across the PLC Group is consistent with the PLC Group's Risk Appetite.

The TRTF and Enterprise Stress Testing Policy ensure that adherence to stress-related Risk Appetite metrics is achieved. Stress testing aims at supplementing other risk metrics used within the PLC Group by providing a forward-looking view of positions and an assessment of their resilience to stressed market conditions. Stress testing is performed on all PLC Group businesses with Traded Risk exposures, either where the risk is actively traded or where material risk remains. This additional information is used to inform the management of the Traded Risks taken within the PLC Group. The outcome of stress tests is discussed across the various business lines and management levels so that existing and potential risks can be reviewed, and related management actions can be decided upon where appropriate.

Policies are reviewed and approved by the Global Head, TRM annually to ensure their ongoing effectiveness and sustainability.

Governance committee oversight

At the Board level, the Board Risk Committee oversees the effective management of Traded Risk. At the executive level, the PLC Group Risk Committee delegates responsibilities to the CCIBRC to act as the primary risk governance body for Traded Risk, and to the Stress Testing Committee for stress testing and the Model Risk Committee for Model Risk. The Standard Chartered Bank Executive Risk Committee is responsible for the governance and oversight of Traded Risk for the Group. Where Traded Risk limits are set at a country level, committee governance is:

- Subsidiary authority for setting Traded Risk limits, where applicable, is delegated from the local Board to the local risk committee, Country Chief Risk Officer and Traded Risk managers
- Branch authority for setting Traded Risk limits remains with TRM which retains responsibility for monitoring and reporting excesses
- Joint ventures (JV), e.g. Permata, are formally managed independently from the PLC Group. However, if Standard Chartered exerts significant management influence in practice, such as through senior functional appointments, then the PLC Group regulator (UK PRA) may require the risks to be fully consolidated, just as though it was a subsidiary

Decision-making authorities and delegation

The PLC Group's Risk Appetite Statement, along with the key associated Risk Appetite metrics, is approved by the Board with responsibility for Traded Risk limits, then tiered accordingly.

Subject to the PLC Group's Risk Appetite for Traded Risk, the PLC Group Risk Committee sets PLC Group-level Traded Risk limits, via delegation to the Group Chief Risk Officer. The Group Chief Risk Officer delegates authority for the major business limits and for all other Traded Risk limits to the TRTF Owner (Global Head, TRM) who in turn delegates approval authorities to individual Traded Risk managers.

Additional limits are placed on specific instruments, positions, and portfolio concentrations where appropriate. Authorities are reviewed at least annually to ensure that they remain appropriate and to assess the quality of decisions taken by the authorised person. Key risk-taking decisions are made only by certain individuals with the skills, judgement and perspective to ensure that the PLC Group's control standards and risk-return objectives are met. Authority delegators are responsible for monitoring the quality of the risk decisions taken by their delegates and the ongoing suitability of their authorities.

Risk profile

Market Risk – value at risk

The PLC Group applies VaR as a measure of the risk of losses arising from future potential adverse movements in market rates, prices and volatilities. VaR is a quantitative measure of Market Risk that applies recent historical market conditions to estimate the potential future loss in market value that will not be exceeded in a set time period at a set statistical confidence level. VaR provides a consistent measure that can be applied across trading businesses and products over time and can be set against actual daily trading profit and loss outcomes.

VaR is calculated for expected movements over a minimum of one business day and to a confidence level of 97.5 per cent.

VaR is calculated on our exposure as at the close of business, generally UK time. Intra-day risk levels may vary from those reported at the end of the day.

The PLC Group applies two VaR methodologies:

- Historical simulation: this involves the revaluation of all existing positions to reflect the effect of historically observed changes in Market Risk factors on the valuation of the current portfolio. This approach is applied for general Market Risk factors and the majority of specific (credit spread) risk VaRs
- Monte Carlo simulation: this methodology is similar to historical simulation but with considerably more input risk factor observations. These are generated by random sampling techniques, but the results retain the essential variability and correlations of historically observed risk factor changes. This approach is applied for some of the specific (credit spread) risk VaR in relation to idiosyncratic exposures in credit markets

In both methods, a historical observation period of one year is chosen and applied.

A small proportion of Market Risk generated by trading positions is not included in VaR or cannot be appropriately captured by VaR. This is recognised through a Risks-not-in-VaR Framework, which estimates these risks and applies capital add-ons.

To assess their ongoing performance, VaR models are backtested against actual results.

An analysis of VaR and backtesting results in 2019 is available in the Risk profile section (pages 89 to 90).

Counterparty Credit Risk

Credit Risk from traded products derives from the positive mark-to market value of the underlying instruments, and an additional component to cater for potential future market movements. This Counterparty Credit Risk is managed within the PLC Group's overall Traded Risk Appetite for corporate and financial institutions. In addition to analysing potential future movements, the PLC Group uses various single factor or multi-risk factor stress test scenarios to identify and manage Counterparty Credit Risk across derivatives and securities financing transactions.

Underwriting

The underwriting of securities and loans is in scope of the Risk Appetite set by the PLC Group for Traded Risk. Additional limits approved by the Group Chief Risk Officer are set on the underwriting portfolio stress loss, and the maximum holding period. The Underwriting Committee, under the authority of the Group Chief Risk Officer, approves individual proposals to underwrite new security issues and loans for our clients.

Day-to-day Credit Risk management activities for traded securities are carried out by a specialist team within TRM whose activities include oversight and approval within the levels delegated by the Underwriting Committee. Issuer Credit Risk, including Settlement and Pre-Settlement Risk, and price risks are controlled by TRM. Where an underwritten security is held for a period longer than the target sell-down period, the final decision on whether to sell the position rests with TRM.

Monitoring

TRM monitors the overall portfolio risk and ensures that it is within specified limits and therefore Risk Appetite. The annual and mid-year limit review processes provide opportunities for the business and TRM to review risk in light of performance. Monitoring and breach escalation procedures for Traded Risk are aligned with the processes set by the Enterprise Risk Management Risk Appetite unit.

Traded Risk exposures are monitored daily against approved limits. Traded Risk limits apply at end-of-day and at all other times, unless separate intra-day limits have been set.limit excess approval decisions are informed by factors such as an assessment of the returns that will result from an incremental increase to the business risk exposure. Limits and excesses can only be approved by a Traded Risk manager with the appropriate delegated authority. Financial Markets traders may adjust their Traded Risk exposures within approved limits and assess risk and reward trade-offs according to market conditions.

TRM reports and monitors limits applied to stressed exposures. Stress scenario analysis is performed on all Traded Risk exposures in Financial Markets and in portfolios outside Financial Markets such as syndicated loans and principal finance. Stress loss excesses are discussed with the business and approved where appropriate, based on delegated authority levels.

Stress testing

The VaR measurement is complemented by weekly stress testing of Market Risk exposures to highlight the potential risk that may arise from extreme market events that are deemed rare but plausible.

Stress testing is an integral part of the Traded Risk management framework and considers both historical market events and forward- looking scenarios. A consistent stress testing methodology is applied to trading and non-trading books. The stress testing methodology assumes that scope for management action would be limited during a stress event, reflecting the decrease in market liquidity that often occurs.

Stress scenarios are regularly updated to reflect changes in risk profile and economic events. The TRM function reviews stress testing results and, where necessary, enforces reductions in overall Market Risk exposure. The PLC Group Risk Committee considers the results of stress tests as part of its supervision of Risk Appetite.

Risk profile

Regular stress test scenarios are applied to interest rates, credit spreads, exchange rates, commodity prices and equity prices. This covers all asset classes in the Financial Markets banking and trading books, including XVA (CVA and FVA). Ad hoc scenarios are also prepared, reflecting specific market conditions and for particular concentrations of risk that arise within the business.

Where required by local statute or regulation, TRM's PLC Group and business-wide stress and scenario testing will be supplemented by entity stress testing at a country level. This stress testing is coordinated at the country level and subject to the relevant local governance.

Capital and liquidity risk

PLC Group defines Capital Risk as the potential for insufficient level, composition or distribution of capital to support our normal activities, and Liquidity Risk as the risk that we may not have sufficient stable or diverse sources of funding to meet our obligations as they fall due

Risk Appetite Statement

PLC Group should maintain a strong capital position including the maintenance of management buffers sufficient to support its strategic aims and hold an adequate buffer of high-quality liquid assets to survive extreme but plausible liquidity stress scenarios for at least 60 days without recourse to extraordinary central bank support

Roles and responsibilities

The Treasurer is responsible for developing a Risk Type Framework for Capital and Liquidity Risk and for complying with regulatory requirements at a Group level. The Treasury and Finance functions, as the second line of defence, provide independent challenge and oversight of the first line risk management activities relating to Capital and Liquidity Risk. In country, the Treasurer is supported by Treasury and Finance in implementing the Capital and Liquidity Risk Type Framework.

Mitigation

The PLC Group develops policies to address material Capital and Liquidity risks and aims to maintain its risk profile within Risk Appetite. In order to do this, metrics are set against Capital Risk, Liquidity and Funding Risk and Interest Rate Risk in the Banking Book. Risk Appetite metrics are also cascaded down to regions and countries in the form of limits and management action triggers.

The PLC Group also maintains a Recovery Plan which is a live document to be used by management in a liquidity or solvency stress. The Recovery Plan includes a set of Recovery Indicators, an escalation framework and a set of management actions capable of being implemented in a stress. A Recovery Plan is also maintained within each major country.

Capital Risk

In order to manage Capital Risk, strategic business and capital plans are drawn up covering a five-year horizon and are approved by the Board annually. The capital plan ensures that adequate levels of capital, including loss- absorbing capacity, and an efficient mix of the different components of capital are maintained to support our strategy and business plans. Treasury is responsible for the ongoing assessment of the demand for capital and the updating of the PLC Group's capital plan.

Capital planning takes the following into account:

- Current regulatory capital requirements and our assessment of future standards and how these might change
- Demand for capital due to the business and loan impairment outlook and potential market shocks or stresses
- Available supply of capital and capital raising options, including ongoing capital accretion from the business

Additionally, Risk Appetite metrics including leverage ratios and Tier 1 ratios (in both regular and stressed conditions) and metrics relating to structural FX positions, minimum requirement for own funds and eligible liability (MREL) are being assessed within the Corporate Plan to ensure that our business plan can be achieved within risk tolerances.

Structural FX Risk

The PLC Group's structural position results from the PLC Group's non-US dollar investment in the share capital and reserves of subsidiaries and branches. The FX translation gains or losses are recorded in the PLC Group's Translation Reserves with a direct impact on the PLC Group's Common Equity Tier 1 ratio.

The PLC Group contracts hedges to manage its structural FX position in accordance with the Board-approved Risk Appetite, and as a result the PLC Group has taken net investment hedges to partially cover its exposure to the Korean won, Chinese renminbi, Taiwanese dollar and Indian rupee to mitigate the FX impact of such positions on its capital ratios.

Liquidity Risk

At PLC Group and country level we implement various business-as-usual and stress risk metrics and monitor these against limits and management action triggers. This ensures that the PLC Group maintains an adequate and well-diversified liquidity buffer as well as a stable funding base, and that it meets its liquidity and funding regulatory requirements. The approach to managing risks and the Board Risk Appetite are assessed annually through the Internal Liquidity Adequacy Assessment Process. A funding plan is also developed for efficient liquidity projections to ensure that the PLC Group is adequately funded in the required currencies, to meet its obligations and client funding needs.

Interest Rate Risk in the Banking Book

The PLC Group defines Interest Rate Risk in the Banking Book (IRRBB) as the potential for a reduction in future earnings or economic value due to changes in interest rates. This risk arises from differences in the repricing profile, interest rate basis, and optionality of banking book assets, liabilities and off-balance sheet items. IRRBB represents an economic and commercial risk to the PLC Group and its capital adequacy. The PLC Group monitors IRRBB against a Board-approved Risk Appetite.

Governance committee oversight

At the Board level, the Board Risk Committee oversees the effective management of Capital and Liquidity Risk. At the executive level, the PLC Group Asset and Liability Committee ensures the effective management of risk throughout the PLC Group in support of the PLC Group's strategy, guides the PLC Group's strategy on balance sheet optimisation and ensures that the PLC Group operates within the internally approved Risk Appetite and other internal and external capital and liquidity requirements.

The PLC Group Asset and Liability Committee delegates part of this responsibility to the Operational Balance Sheet Committee to ensure alignment with business objectives, and part of this responsibility to the Standard Chartered Bank Asset and Liability Committee for governance and oversight of the Group.

Risk profile

Country oversight under the capital and liquidity framework resides with country Asset and Liability Committees. Countries must ensure that they remain in compliance with PLC Group capital and liquidity policies and practices, as well as local regulatory requirements.

The Stress Testing Committee ensures the effective management of capital and liquidity-related enterprise stress testing in line with the PLC Group's Enterprise Stress Testing Policy and applicable regulatory requirements. The Stress Testing Committee reviews, challenges and approves stress scenarios, results and management actions for all enterprise stress tests. Insights gained from the stress tests are used to inform underwriting decisions, risk management, capital and liquidity planning and strategy.

Decision-making authorities and delegation

The Group Chief Financial Officer has responsibility for capital, funding and liquidity under the Senior Managers Regime. The Group Chief Risk Officer has delegated the Risk Framework Owner responsibilities associated with Capital and Liquidity Risk to the Treasurer. The Treasurer delegates second line oversight and challenge responsibilities to relevant and suitably qualified Treasury and Finance individuals.

Monitoring

On a day-to-day basis, the management of Capital and Liquidity Risk at the country level is performed by the Country Chief Executive Officer and Treasury Markets respectively. The PLC Group regularly reports and monitors Capital and Liquidity Risk inherent in its business activities and those that arise from internal and external events. The management of capital and liquidity is monitored by Treasury and Finance with appropriate escalation processes in place.

Internal risk management reports covering the balance sheet and the capital and liquidity position of the PLC Group are presented to the Operational Balance Sheet Committee and the PLC Group Asset and Liability Committee. The reports contain key information on balance sheet trends, exposures against Risk Appetite and supporting risk measures which enable members to make informed decisions around the overall management of the PLC Group's balance sheet. Oversight at a country level is provided by the country Asset and Liability Committee, with a focus on the local capital and liquidity risks, local prudential requirements and risks that arise from local internal and external events.

Stress testing

Stress testing and scenario analysis are an integral part of the capital and liquidity framework and are used to ensure that the PLC Group's internal assessment of capital and liquidity considers the impact of extreme but plausible scenarios on its risk profile. A number of stress scenarios, some designed internally, some required by regulators, are run periodically. They provide an insight into the potential impact of significant adverse events on the PLC Group's capital and liquidity position and how this could be mitigated through appropriate management actions to ensure that the PLC Group remains within the approved Risk Appetite and regulatory limits. Daily liquidity stress scenarios are also run to ensure the PLC Group holds sufficient high-quality liquid assets to withstand extreme liquidity events.

Country risk

PLC Group defines Country risk as the potential for losses due to political or economic events in a country

Risk Appetite Statement
PLC Group manages its country cross-border exposures following the principle of diversification across geographies and controls the business activities in line with the level of jurisdiction risk

Roles and responsibilities

The Country Risk Type Framework provides clear accountability and roles for managing risk through the three lines of defence model. The Global Head, Enterprise Risk Management is responsible for the management and control of Country Risk across the PLC Group and is supported by the regional and country Chief Risk Officers who provide second line oversight and challenge to the first line Country Risk management activities. The first line ownership of Country Risk resides with the regional and country Chief Executive Officers who are responsible for the application of the framework; identification of Country Risk sub-types; and contributing to the limit setting approach by providing insight into the country business strategy. The first line also has responsibilities for ensuring that exposures remain within approved limits and in the event of any breaches, for putting in place appropriate remediation plans in a timely manner.

Mitigation

Standards are developed and deployed to implement requirements and controls that all countries must follow to ensure effective management of Country Risk. The standards outline the process for Country Risk limit setting, monitoring and reporting exposures. In response to growing concerns over the Country Risk outlook for a particular country, sovereign ratings may be downgraded, and country limits may also be reduced.

Governance committee oversight

At the Board level, the Board Risk Committee oversees the effective management of Country Risk. At the executive level, the PLC Group Risk Committee is responsible for approving policies and control risk parameters, monitoring material risk exposures and directing appropriate action in response to material risk issues or themes that come to the Committee's attention that relate to Country Risk. At the Group level, the Standard Chartered Bank Executive Risk Committee is responsible for the governance and oversight of Country Risk. At a country level, the Country Risk Committee (or Executive Risk Committee for subsidiaries) is responsible for monitoring all risk issues for the respective country, including Country Risk.

Decision-making authorities and delegation

The Country Risk Type Framework is the formal mechanism through which the delegation of Country Risk authorities is made. Approval authorities for Country Risk limits have been set based on the size of the proposed limit and the sovereign rating. The key principle is that large nominal limits, as well as higher risk jurisdictions, will require escalation for approval based on set levels per the delegated authorities approval matrix.

Monitoring

In 2019, risk coverage of Country Risk was expanded from Country Cross-Border Risk to Gross Country Risk which is an aggregate of Transfer and Convertibility Risk and Local Currency Risk. This is to provide a more holistic and enhanced approach to Country Risk.

Monitoring and reporting of Country Risk is included in the standards and covers the monitoring of exposures relative to Risk Appetite thresholds and limits, as well as the reporting of material exposures to internal committees and externally where appropriate. Risk Appetite focusses on monitoring Gross Country Risk exposure to a single country as a percentage of aggregated Gross Country Risk exposure across all countries. The PLC Group Risk Committee monitors Risk Appetite thresholds on a traffic-light indicator basis, and these provide an early warning signal of stress and concentration risk. An escalation process to the Board Risk Committee is in place based on the traffic-light indicators monitoring system.

Enhanced capabilities have been established with the Country Risk Dashboard to monitor and manage Country Risk exposures for the expanded scope of Country Risk.

Stress testing

The PLC Group Country Risk team produces stressed sovereign ratings which are used by the relevant Credit and Traded Risk teams in calculating risk-weighted assets during described extreme but plausible stress scenarios.

Risk profile

Reputational risk

PLC Group defines Reputational Risk as the potential for damage to the franchise, resulting in loss of earnings or adverse impact on market capitalisation because of stakeholders taking a negative view of the organisation, its actions or inactions – leading stakeholders to change their behaviour.

Risk Appetite Statement

PLC Group aims to protect the franchise from material damage to its reputation by ensuring that any business activity is satisfactorily assessed and managed by the appropriate level of management and governance oversight

Roles and responsibilities

The Global Head, Enterprise Risk Management is the Risk Framework Owner for Reputational Risk under the PLC Group's Enterprise Risk Management Framework. For primary risks, the responsibility of Reputational Risk management at country level is delegated to Country Chief Risk Officers. Both the Global Head, Enterprise Risk Management and Country Chief Risk Officers constitute the second line of defence, overseeing and challenging the first line which resides with the Chief Executive Officers, Business Heads and Product Heads in respect of risk management activities of reputational-related risks. The PLC Group recognises that there is also the potential for consequential Reputational Risk should it fail to control other principal risks. Such secondary Reputational Risks are managed by the Risk Framework Owners of each principal risk who are responsible for enhancing existing risk management frameworks to incorporate Reputational Risk management approaches.

Mitigation

The PLC Group's Reputational Risk policy sets out the principal sources of Reputational Risk and the responsibilities and procedures for identifying, assessing and escalating primary and secondary Reputational Risks. The policy also defines the control and oversight standards to effectively manage Reputational Risk. The PLC Group takes a structured approach to the assessment of risks associated with how individual client, transaction, product and strategic coverage decisions may affect perceptions of the organisation and its activities, including, but not limited to, explicit principles related to environment and social risks and defence and dual use goods. Wherever a potential for stakeholder concerns is identified, issues are subject to prior approval by a management authority commensurate with the materiality of matters being considered. Such authorities may accept or decline the risk or impose conditions upon proposals, to protect the PLC Group's reputation. Secondary Reputational Risk mitigation derives from the effective management of other principal risks.

Governance committee oversight

The Brand, Values and Conduct Committee retains Board-level oversight responsibility for Reputational Risk. Oversight from an operational perspective falls under the remit of the PLC Group Risk Committee and the Board Risk Committee. The PLC Group Reputational Risk Committee ensures the effective management of primary Reputational Risk across the PLC Group. The Standard Chartered Bank Executive Risk Committee ensures the governance and oversight of Reputational Risk for the Group.

The PLC Group Reputational Risk Committee's remit is to:

- Challenge, constrain and, if required, stop business activities where risks are not aligned with the PLC Group's Risk Appetite
- Make decisions on Reputational Risk matters assessed as high or very high based on the PLC Group's primary Reputational Risk materiality assessment matrix, and matters escalated from the regions or client businesses
- Provide oversight of material Reputational Risk and/or thematic issues arising from the potential failure of other risk types

The PLC Group Non-Financial Risk Committee has oversight of the effective management of secondary Reputational Risk.

Decision-making authorities and delegation

The PLC Group Risk Committee provides PLC Group-wide oversight on Reputational Risk, approves policy and monitors material risks. The PLC Group Reputational Risk Committee is authorised to approve or decline Reputational Risk aspects of any business transaction, counterparty, client, product, line of business and market within the boundaries of the PLC Group's Risk Appetite, and any limits and policies set by authorised bodies of the PLC Group.

Monitoring

Reputational Risk policies and standards are applicable to all PLC Group entities. However, local regulators in some markets may impose additional requirements on how banks manage and track Reputational Risk. In such cases, these are complied with in addition to PLC Group policies and standards. Exposure to Reputational Risk is monitored through:

- A requirement that process owners establish triggers to prompt consideration of Reputational Risk and escalation where necessary
- The tracking of risk acceptance decisions
- The tracking of thematic trends in secondary risk arising from other principal risks.
- The analysis of prevailing stakeholder concerns and industries with greater exposure to environmental, social and governance issues

In 2019, enhanced capabilities have been established to integrate risk identification and assessment into the client on-boarding and review process, and transaction reviews. In addition, web-scraping technology has been combined with internal data to provide detailed risk monitoring, analytics and drill down capabilities.

Risk profile

Stress testing

Although Reputational Risk is not an explicit separate regulatory factor in enterprise stress tests, it is incorporated into the PLC Group's stress testing scenarios. For example, the PLC Group may consider what impact a hypothetical event leading to loss of confidence among liquidity providers in a particular market might have, or what the implications might be for supporting part of the organisation in order to protect the brand.

Risk profile

Operational risk

PLC Group defines Operational Risk as the potential for loss resulting from inadequate or failed internal processes and systems, human error or from the impact of external events (including legal risks).

Risk Appetite Statement

PLC Group aims to control operational risks to ensure that operational losses (financial or reputational), including any related to conduct of business matters, do not cause material damage to the PLC Group's franchise

Roles and responsibilities

The Operational Risk Type Framework (ORTF) is set by the Global Head of Risk, Functions and Operational Risk and is applicable enterprise-wide. This Framework defines and collectively groups operational risks which have not been classified as principal risks into non-Principal Risk Types (non-PRTs) and sets standards for the identification, control, monitoring and treatment of risks. These standards are applicable across all PRTs and non-PRTs. The non-PRTs relate to execution capability, governance, reporting and obligations, legal enforceability, and operational resilience (including client service, third party vendor services, change management, safety and security and system availability).

The ORTF reinforces clear accountability for managing risk throughout the PLC Group and delegates second line of defence responsibilities to identified subject matter experts. For each non-PRT, the expert sets policies for the organisation to comply with, and provides guidance, oversight and challenge over the activities of the PLC Group. They ensure that key risk decisions are only taken by individuals with the requisite skills, judgement, and perspective to ensure that the PLC Group's risk-return objectives are met.

Mitigation

The ORTF sets out the PLC Group's overall approach to the management of Operational Risk in line with the PLC Group's Operational Risk Appetite. This is supported by Control Assessment Standards (CAS) which define roles and responsibilities for the identification, control and monitoring of risks (applicable to all non-PRTs and PRTs).

The CAS are used to determine the design strength and reliability of each process, and require:

- The recording of processes run by client segments, products, and functions into a process universe
- The identification of potential breakdowns to these processes and the related risks of such breakdowns
- An assessment of the impact of the identified risks based on a consistent scale
- The design and monitoring of controls to mitigate prioritised risks
- Assessments of residual risk and timely actions for elevated risks

Risks that exceed the PLC Group's Operational Risk Appetite require treatment plans to address underlying causes.

Governance committee oversight

At the Board level, the Board Risk Committee oversees the effective management of Operational Risk. At the executive level, the PLC Group Risk Committee delegates authority primarily to the PLC Group Non-Financial Risk Committee (GNFRC) to monitor the PLC Group's Operational Risk Appetite and to oversee the PLC Group's Operational Risk profile. The GNFRC has the authority to challenge, constrain and, if required, stop business activities where risks are not aligned with the PLC Group's Operational Risk Appetite.

The Standard Chartered Bank Executive Risk Committee is responsible for the governance and oversight of Operational Risk for the Group. Regional, business-segments and functional committees also provide enterprise oversight of their respective processes and related operational risks. In addition, Country Non-Financial Risk Committees (CNFRCs) oversee the management of Operational Risks at the country (or entity) level. In smaller countries, the responsibilities of the CNFRC may be exercised directly by the Country Risk Committee (for branches) or Executive Risk Committee (for subsidiaries).

Monitoring

To deliver services to clients and to participate in the financial services sector, the PLC Group runs processes which are exposed to operational risks. The PLC Group prioritises and manages risks which are significant to clients and to the financial services sectors. Control indicators are regularly monitored to determine the residual risk the PLC Group is exposed to. The residual risk assessments and reporting of events form the PLC Group's Operational Risk profile. The completeness of the Operational Risk profile ensures appropriate prioritisation and timeliness of risk decisions, including risk acceptances with treatment plans for risks that exceed acceptable thresholds.

The Board is informed on adherence to Operational Risk Appetite through metrics reported for selected risks. These metrics are monitored, and escalation thresholds are devised based on the materiality and significance of the risk. These Operational Risk Appetite metrics are consolidated on a regular basis and reported at relevant PLC Group committees. This provides senior management with the relevant information to inform their risk decisions.

Stress testing

Stress testing and scenario analysis are used to assess capital requirements for operational risks. This approach considers the impact of extreme but plausible scenarios on the PLC Group's Operational Risk profile. A number of scenarios have been identified to test the robustness of the PLC Group's processes, and assess the potential impact on the PLC Group. These scenarios include anti-money laundering, sanctions, as well as information and cyber security.

Risk profile

Compliance risk

PLC Group defines Compliance Risk as the potential for penalties or loss to the PLC Group or for an adverse impact to our clients, stakeholders or to the integrity of markets in which we operate through a failure on our part to comply with laws or regulations

Risk Appetite Statement

PLC Group has no appetite for breaches in laws and regulations; whilst recognising that regulatory non-compliance cannot be entirely avoided, the PLC Group strives to reduce this to an absolute minimum

Roles and responsibilities

The Group Head, Corporate Affairs, Brand & Marketing and Conduct, Financial Crime and Compliance (Group Head, CABM & CFCC) as Risk Framework Owner for Compliance Risk provides support to senior management on regulatory and compliance matters by:

- Providing interpretation and advice on regulatory requirements and their impact on the PLC Group
- Setting enterprise-wide standards for compliance, through the establishment and maintenance of a risk-based compliance framework, the Compliance Risk Type Framework (Compliance RTF)
- Setting a programme for monitoring Compliance Risk

The Compliance RTF sets out the PLC Group's overall approach to the management of Compliance Risk and the roles and responsibilities in respect of Compliance Risk for the PLC Group. All activities that the PLC Group engages in must be designed to comply with the applicable laws and regulations in the countries in which we operate. The CFCC function is the second line that provides oversight and challenge of the first line risk management activities that relate to Compliance Risk.

The Compliance RTF defines Compliance Risk sub-types. Where Compliance Risk arises, or could arise, from failure to manage another principal risk or risk sub-type, the oversight and management processes for that specific principal risk or risk sub-type must be followed and the responsibility rests with the other Risk Framework Owner or control function to ensure that effective oversight and challenge of the first line can be provided by the appropriate second line function.

Each of the assigned second line functions has responsibilities including monitoring relevant regulatory developments from

Non-Financial Services regulators at both PLC Group and country levels, policy development, implementation, and validation as well as oversight and challenge of first line processes and controls.

In addition, the CFCC leadership team was strengthened in 2019 by bringing in new skills and breadth of experience. Notably, there is a new Group Regulatory and Public Affairs team to monitor regulatory reforms in key markets and establish a protocol of horizon scanning for emerging Compliance Risk. This protocol helps to ensure that regulatory reforms with the potential to affect the PLC Group in multiple markets are identified and steps taken in good time to help ensure compliance.

Mitigation

The CFCC function develops and deploys relevant policies and standards setting out requirements and controls for adherence by the PLC Group to ensure continued compliance with applicable laws and regulations. Through a combination of risk assessment, control standard setting, control monitoring and compliance assurance activities, the Compliance Risk Framework Owner seeks to ensure that all policies are operating as expected to mitigate the risk that they cover. The installation of appropriate processes and controls is the primary tool for the mitigation of Compliance Risk. In this, the requirements of the Operational Risk Type Framework are followed to ensure a consistent approach to the management of processes and controls. Several material technological solutions were deployed in 2019 to improve efficiencies and simplify processes. These include implementation of an enhanced systems to better track matters raised by our regulators and breaches of regulations, and digital portals and chatbots providing improved access to compliance advice.

Governance committee oversight

Compliance Risk and the risk of non-compliance with laws and regulations resulting from failed processes and controls are overseen by Business, Product and Function Non-Financial Risk Committees. The Conduct and Compliance Non-Financial Risk Committee has a consolidated view of these risks and helps to ensure that appropriate governance is in place for these. In addition, the Committee helps to ensure that elevated levels of Compliance Risk are reported to the PLC Group Non-Financial Risk Committee, PLC Group Risk Committee and Board Audit Committee. At the Group level., the Standard Chartered Bank Executive Risk Committee is responsible for the governance and oversight of Compliance Risk. Within each country, oversight of Compliance Risk is delegated through the Country Non-Financial Risk Committee.

Decision-making authorities and delegation

Decision-making and approval authorities follow the Enterprise Risk Management Framework approach and risk thresholds. The Group Head, CABM & CFCC has the authority to delegate second line responsibilities within the CFCC function to relevant and suitably qualified individuals.

Monitoring

The monitoring of controls designed to mitigate the risk of regulatory non-compliance in processes are governed in line with the Operational Risk Type Framework. The PLC Group has a monitoring and reporting process in place for Compliance Risk, which includes escalation and reporting to Conduct and Compliance Non-Financial Risk Committee, PLC Group Risk Committee and Board Audit Committee as appropriate. In 2019, monitoring of Compliance Risk was further enhanced with the introduction of new Risk Appetite metrics.

Risk profile

Stress testing

Stress testing and scenario analysis are used to assess capital requirements for Compliance Risk and form part of the overall scenario analysis portfolio managed under the Operational Risk Type Framework. Specific scenarios are developed annually with collaboration between the business, which owns and manages the risk, and the CFCC function, which is second line to incorporate significant Compliance Risk tail events. This approach considers the impact of extreme but plausible scenarios on the PLC Group’s Compliance Risk profile.

Risk profile

Conduct risk

PLC Group defines Conduct Risk as the risk of detriment to the PLC Group's clients, investors, shareholders, market integrity, competition and counterparties, or risk of detriment from the inappropriate supply of financial services, including instances of wilful or negligent misconduct.

Risk Appetite Statement
PLC Group has no appetite for negative Conduct Risk outcomes arising from negligent or wilful actions by the PLC Group or individuals, recognising that whilst incidents are unwanted, they cannot be entirely avoided

In addition to the PLC Group's external stakeholders, Conduct Risk may also arise in respect to our behaviour towards each other as colleagues. The PLC Group believes that all employees are entitled to a fair and safe working environment that is free from discrimination, exploitation, bullying, harassment or inappropriate language.

Roles and responsibilities

Conduct Risk management and abiding by the PLC Group Code of Conduct is the responsibility of all employees in the PLC Group.

The first line of defence is required to ensure that potential Conduct Risks arising in the business, functions and countries are identified, assessed and managed appropriately. Senior management in the first line of defence are accountable for embedding the right culture relating to Conduct Risk. The CFCC function is the second line for Conduct Risk, and is responsible for providing independent guidance, oversight, and challenge to the first line as well as setting the risk management standards that the first line must adhere to. As Conduct Risk may be derived from the other principal risks and their risk sub-types, no specific Conduct Risk sub-types have been defined. Where Conduct Risk is derived through the crystallisation of risks under the other principal risks, the potential Conduct Risk is evaluated and considered through the other principal risks. Any materialised or forward-looking risks defined in the various principal risks which do not meet the PLC Group's Conduct standards are included in the Conduct Plans.

Conduct Plans

The Conduct Plans are used for the end-to-end process of risk identification and assessment of Conduct Risk against the Conduct Outcomes, and remediation actions. Action plans to mitigate Conduct Risks are identified and documented in the Conduct Plan. It is a live and dynamic document and must be kept regularly updated, including as and when there are potential or materialised conduct risks identified through other principal risks. Identified conduct risks and the corresponding mitigation should be monitored by relevant governance forums to ensure effective and timely resolution. The Conduct Plans should meet minimum standards as follows:

- Conduct Plans are owned by the management of each country, region, business and function within the PLC Group. As the first line of defence, management is responsible to ensure that the Conduct Plans are regularly reviewed and updated. The CFCC function as the second line of defence and Risk Framework Owner is responsible for challenging management on the quality and completeness of the plan, as well as the effectiveness and timeliness of the remediation strategy
- Conduct Plans highlight the key conduct risks that are inherent in the processes and activities performed or impacted within a country, region, business or function
- The PLC Group Conduct Management Principles, which highlight various conduct outcomes, should be used as a guide to help with the process of identifying relevant conduct risks
- For each of the risks identified, appropriate remediation action, enhancements to the control environment, responsible action owners and timeframes for resolution must be clearly recorded within the Conduct Plan
- Regular engagement should take place between owners of the PLC Group and geographic Conduct Plans to ensure appropriate escalation and communications related to conduct risks and the mitigation strategy applied
- Conduct Plans should also reflect Conduct Risks based on one-off projects, adverse trends from conduct management information, internal conduct incidents, deficiencies identified through internal assurance activities across the three lines of defence, emerging risks/trends and external developments

Governance committee oversight

The Board Risk Committee, Brand Values and Conduct Committee, PLC Group Risk Committee, PLC Group Non-Financial Risk Committee and the Conduct and Compliance Non-Financial Risk Committee are responsible for ensuring that the PLC Group effectively manages its Conduct Risk. The Standard Chartered Bank Executive Risk Committee is responsible for the governance and oversight of Conduct Risk for the Group. As Risk Framework Owner for Conduct Risk, the Group Head, CABM & CFCC sets reporting thresholds for escalation of Conduct Risk to the Conduct and Compliance Non-Financial Risk Committee, PLC Group Non-Financial Risk Committee and PLC Group Risk Committee. The Board Risk Committee and the Brand Values and Conduct Committee receive periodic reports that provide updates relating to the PLC Group's approach to managing Conduct Risk across our countries, regions, businesses and functions.

Decision-making authorities and delegation

Conduct Risk challenge and acceptance authority is exercised by the Group Head, CABM & CFCC, and delegated within the CFCC function as second line.

Monitoring and mitigation

Conduct Risk monitoring is done by the businesses, functions, regions and countries based on identified conduct metrics and other principal risk assessment activities. Following the end of each quarter, all businesses, functions, regions and countries are required to self-assess and report their progress against the agreed actions as set out in Conduct Plans to their respective CFCC second line delegate to validate. This responsibility rests with the respective business head, function head or Chief Executive Officer.

Risk profile

To provide a view of the key Conduct Risks facing the PLC Group, three revised PLC Group-level Risk Appetite metrics will be used. These relate to the PLC Group's main Conduct Risk outcomes: Fair Outcomes for Clients; Employee Welfare and Relations; and Effective Markets and Stakeholder Confidence (e.g. regulators and investors). The PLC Group Risk Assessment Matrix (GRAM) will be used to rate the key drivers for each of the three categories. The use of the GRAM will help to ensure that a consistent approach is followed when assessing the impact and likelihood of potential Conduct Risk outcomes.

Stress testing

The assessment of Conduct Risk vulnerabilities under stressed conditions or extreme events with a low likelihood of occurring are carried out through enterprise stress testing. This is currently covered primarily through Operational Risk driven stress scenarios.

Financial Crime risk

PLC Group defines Financial Crime Risk as the potential for legal or regulatory penalties, material financial loss or reputational damage resulting from the failure to comply with applicable laws and regulations relating to international sanctions, anti-money laundering, anti-bribery and corruption, and fraud.

Risk Appetite Statement
PLC Group has no appetite for breaches in laws and regulations related to financial crime, recognising that while incidents are unwanted, they cannot be entirely avoided

Roles and responsibilities

The Group Head, CABM & CFCC has overall responsibility for Financial Crime Risk and is responsible for the establishment and maintenance of effective systems and controls to meet legal and regulatory obligations in respect of Financial Crime Risk. The Group Head, CABM & CFCC is the Group's Compliance and Money-Laundering Reporting Officer and performs the Financial Conduct Authority (FCA) controlled function and senior management function in accordance with the requirements set out by the FCA, including those set out in their handbook on systems and controls. As the first line, the business unit process owners have responsibility for the application of policy controls and the identification and measurement of risks relating to financial crime. Business units must communicate risks and any policy non-compliance to the second line for review and approval following the model for delegation of authority.

In 2019, Fraud Risk, previously a risk sub-type under Operational Risk Type Framework (ORTF), was transferred to Financial Crime Risk. Second line of defence activities for Fraud Risk lie with the Global Head, Fraud.

Mitigation

There are four PLC Group policies in support of the Financial Crime Risk Type Framework:

- Anti-bribery and corruption as set out in the Group Anti-Bribery and Corruption Policy
- Anti-money laundering and countering terrorists financing as set out in the Group Anti-Money Laundering and Counter Terrorist Financing Policy
- Sanctions as set out in the Group Sanctions Policy
- Fraud as set out in the Group Fraud Risk Management Policy

The PLC Group operates risk-based assessments and controls in support of its Financial Crime Risk programme, including (but not limited to):

- PLC Group Risk Assessment - a Group-wide Financial Crime Risk assessment that is undertaken annually to assess the inherent Financial Crime Risk exposures and the effectiveness of the implemented controls by which these exposures are mitigated, so that the PLC Group can direct and allocate appropriate mitigating resources
- Country Risk Assessment (Geographic Risk Rating) – an assessment and measurement of the inherent Financial Crime Risk within specific countries or jurisdictions based on political, economic and criminal factors
- Product Risk Assessment – an assessment of the inherent Financial Crime Risks within the products offered by the PLC Group
- Client Risk Assessment – a model, calibrated and monitored using PLC Group Model Validation standards, designed to dynamically measure the inherent Financial Crime Risks posed by a client relationship
- Financial Crime Surveillance – risk-based systems and processes to prevent and detect financial crime.

The strength of controls is tested and assessed through the PLC Group's ORTF, in addition to oversight by CFCC Assurance and PLC Group Internal Audit.

Governance committee oversight

Financial Crime Risk within the PLC Group is governed by the PLC Group Financial Crime Risk Committee; and the PLC Group Non-Financial Risk Committee for Fraud Risk which is appointed by and reports into the PLC Group Risk Committee. Both committees are responsible for ensuring the effective management of Operational Risk relating to Financial Crime Risk and Fraud Risk compliance throughout the PLC Group. The Board appoints the Board Financial Crime Risk Committee to provide oversight on anti-bribery and corruption, anti-money laundering (and terrorist financing) and sanctions; and the Board Risk Committee for oversight on Fraud Risk. The Committees provide oversight of the effectiveness of the PLC Group's policies, procedures, systems, controls and assurance mechanisms designed to identify, assess, manage, monitor, detect or prevent money laundering, non-compliance with sanctions, bribery, corruption, internal/external fraud and tax crime by third parties. The Standard Chartered Bank Executive Risk Committee is responsible for the governance and oversight of Financial Crime Risk for the Group.

Decision-making authorities and delegation

The Group Head, CABM & CFCC is the Risk Framework Owner for Financial Crime Risk under the PLC Group's Enterprise Risk Management Framework and has delegated authorities to effectively implement the Financial Crime Risk Type Framework, to the Co-Heads, Financial Crime Compliance. Certain aspects of Financial Crime Compliance, second line oversight and challenge, are further delegated within the CFCC function. Approval frameworks are in place to allow for risk-based decisions on client on-boarding, potential breaches of sanctions regulation or policy, and situations of potential money laundering (and terrorist financing), bribery and corruption or internal and external fraud.

Monitoring

The PLC Group monitors Financial Crime Risk compliance against a set of Risk Appetite metrics that are approved by the Board. These metrics are reviewed periodically and reported regularly to the PLC Group Financial Crime Risk Committee, PLC Group Non-Financial Risk Committee, Board Risk Committee and Board Financial Crime Risk Committee.

Risk profile

In 2019, new metrics were introduced, including for internal and external fraud losses, and these PLC Group Risk Appetite metrices are being cascaded to countries for local adoption and close monitoring.

Stress testing

The assessment of Financial Crime vulnerabilities under stressed conditions or extreme events with a low likelihood of occurring is carried out through enterprise stress testing.

Information and Cyber Security Risk

PLC Group defines Information and Cyber Security Risk as the potential for loss from a breach of confidentiality, integrity or availability of the PLC Group's information systems and assets through cyber attack, insider activity, error or control failure

Risk Appetite Statement
PLC Group seeks to avoid risk and uncertainty for our critical information assets and systems and has a low appetite for material incidents affecting these or the wider operations and reputation of the PLC Group

Roles and responsibilities

In 2019, the PLC Group consolidated its information and cyber security (ICS) efforts to withstand cyber threats, eliminate duplication and improve clarity of roles. The Group Chief Operating Officer has been given overall first line of defence responsibility for ICS Risk and holds full accountability for the PLC Group's end-to-end ICS strategy. In order to create a more business and client-aligned ICS support team, the role of the Chief Information Security Officer (CISO) position moved to the first line and the second line role has been re-framed as the Chief Information Security Risk Officer (CISRO).

The Group CISRO continues to operate as the second line of defence, having overall responsibility for governance, oversight and challenge of ICS Risk and providing insight to senior management and the Board on the PLC Group's ICS Risk management.

The ICS Risk Type Framework (RTF) emphasises business ownership and individual accountability for managing ICS Risk. It defines the first line roles of Information Asset Owners, Information System Owners and Information Custodians as named individuals within each business, and the accountability for classifying and managing risks to the information assets and systems. The Heads of ICS, within Group CISO, provide Information Asset and System Owners a centralised first line point of contact to ensure controls are embedded effectively and consistently across the PLC Group.

Mitigation

ICS Risk is managed through a structured ICS policy framework comprising a risk assessment methodology and supporting policies and standards which are aligned to industry best practice models.

The CISRO function monitors compliance to the ICS policy framework through an assessment of each key control domain as defined by the ICS RTF through the ICS Risk profile report. Within the ICS Risk profile, appropriate mitigating activity for each key control domain is identified, undertaken and reported against by the business.

In 2019, the Board approved a refreshed ICS strategy supporting the overall PLC Group strategy and delivery of the ICS RTF risk management principles. A key part is investing in digitisation and partnerships to better serve our clients.

Governance committee oversight

ICS Risk within the PLC Group is currently governed via the Board Risk Committee which has responsibility for approving the definition of ICS Risk and the PLC Group Risk Appetite. In addition, the PLC Group Risk Committee (GRC) has delegated authority to the PLC Group Non-Financial Risk Committee (GNFRC) to ensure effective implementation of the ICS RTF. The GRC and GNFRC retain responsibility for oversight of ICS Risk control domains rated very high and high respectively. Sub-committees of the GNFRC have oversight of ICS Risk management arising from business, country and functional areas. The Standard Chartered Bank Executive Risk Committee ensures the governance and oversight of ICS Risk for the Group.

These governance committees have responsibility for providing oversight of ICS Risk against Risk Appetite and measuring performance of ICS Risk management activities across the first line. Chairs of governance committees ensure adequate representation for all business units and countries across the PLC Group who are responsible for managing ICS Risk. Escalation of ICS risks which fall outside the defined appetite for the PLC Group are overseen by these committees to ensure effective mitigation.

At the management level, PLC Group has also created the Cyber Security Advisory Forum, chaired by the Group Chief Executive, as a way of ensuring the Management Team, the Chairman and several non-executive directors are well informed on ICS Risk, and to increase business understanding and awareness so that business priorities drive the security and cyber resilience agenda.

Decision-making authorities and delegation

The ICS RTF is the formal mechanism through which the delegation of ICS Risk authorities is made. The Group Chief Risk Officer has delegated the ICS Risk Framework Owner authority to the CISRO. The CISRO has, where appropriate, delegated second line authority to Information Security Risk Officers to assume the responsibilities for approval for business, functions, and countries.

Approval of ICS Risk ratings follow an approval matrix defined by the ICS RTF where the Group Chief Risk Officer and Group CISRO sign off very high and high risks respectively.

Information Asset Owners, Information System Owners and Information Custodians are responsible for the identification, creation and implementation of processes as required to comply with the ICS policy framework.

Monitoring

Monitoring and reporting on the ICS Risk Appetite profile ensures that performance which falls outside the approved Risk Appetite is highlighted and reviewed at the appropriate governance committee or authority levels and ensures that adequate remediation actions are in place where necessary.

Risk profile

Identification of ICS risks are performed through the following processes:

- Dynamic ICS Risk scanning is carried out through industry and specialist activities; inputs from legal, regulatory and mandatory bodies; changes to information and technology use in society, opportunities or incidents; and identifying emerging threats to the PLC Group's information assets and systems.
- An ICS Risk profile assessment exercise is performed to identify and ascertain severity ratings of risks to information assets and systems. Risks identified within the key control domains are documented within ICS Risk profiles and reviewed monthly as part of risk governance to ensure effective mitigation against the approved appetite. During these reviews, the status of each risk is assessed to identify any changes to materiality and likelihood, which in turn affect the overall risk score and rating. Risks which exceed defined thresholds are escalated to appropriate governance bodies. Group CISRO performs a consolidation of completed ICS Risk profiles for the PLC Group and produces a holistic aggregated risk position with appropriate key control and risk indicators, which are used to govern the overall ICS Risk.

Stress testing

Group CISRO determines ICS Risk controls to be subjected to scenario-based resiliency stress testing and sensitivity analysis, which is aimed to either ensure robustness of control or ability to respond should a control fail. The PLC Group's stress testing approach entails:

- Group CISRO oversees all ICS risk-related stress testing the PLC Group carries out to meet regulatory requirements
- Incident scenarios affecting information assets and systems are periodically tested to assess the incident management capability in the PLC Group
- Penetration testing and vulnerability scanning are performed against the PLC Group's internet-facing services and critical information assets/systems

Risk profile

Emerging Risks

In addition to our Principal Risk Types that we manage through Risk Type Frameworks, policies and Risk Appetite, we also maintain an inventory of emerging risks. Emerging risks refer to unpredictable and uncontrollable outcomes from events which may have the potential to materially impact our business. These include near-term risks that are on the horizon and can be measured or mitigated to some extent, as well as longer-term uncertainties that are on the radar but not yet fully measurable.

In 2019, we undertook a thorough review of our Emerging Risks, using the approach described in the Enterprise Risk Management Framework section (page 102 to 108). The key results of the review are detailed below.

Populism is on the rise globally. Policies such as income redistribution, public spending increases, a rise in trade barriers and tariffs, tax cuts, restrictions on immigration, and pro-nationalist or anti-global rhetoric pose a risk to long-term economic progression and overlay the majority of our Emerging Risks.

Key changes to our Emerging Risks:

The following items have been removed as emerging risks:

- 'Emerging Markets (EM) – upcoming elections, interest rate rises, and FX risks' – Due to the successful completion of elections this year in key markets such as Indonesia, India, Malaysia, Brazil and Sri Lanka and the significant reduction in the likelihood of interest rate rises this risk has decreased and is no longer considered an Emerging Risk. However, we continue monitoring at regional and country level to detect horizon risks and analyse potential adverse developments.

The following items have been amended or added as new emerging risks:

- 'China slowdown and impact on regional economies with close ties to China' – The novel coronavirus (Covid-19) outbreak has raised concerns over growth prospects in China and the risk this poses to the broader Asian and global outlook
- 'Hong Kong social unrest' – The ongoing social unrest since the Fugitive Offenders and Mutual Legal Assistance in Criminal Matters Legislation Bill ('Extradition Bill') was proposed in February 2019 have resulted in increased concern and elevated risk
- 'Interbank Offered Rate (IBOR) discontinuation and transition' – There are concerns regarding the impact of the discontinuation of the IBOR benchmarks and the transition to risk-free rates (RFRs)
- 'Japan Korea diplomatic dispute' – The disagreement over wartime labour compensation has escalated and may affect the trade of critical raw materials

Our list of emerging risks, based on our current knowledge and assumptions, is set out below, with our subjective assessment of their impact, likelihood and velocity of change. This reflects the latest internal assessment of material risks that the PLC Group faces as identified by senior management. This list is not designed to be exhaustive and there may be additional risks which could materialise or have an adverse effect on the PLC Group.

Our mitigation approach for these risks may not be successful in completely eliminating them, but rather shows our attempt to reduce or manage the risk. As certain risks develop and materialise over time, management will take appropriate incremental steps based on the materiality of the impact of the risk to our operations:

Geopolitical considerations (Risk ranked according to severity)

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
US China trade tensions driven by geopolitics and trade imbalance Potential impact: **High** Likelihood: **High** Velocity of change: **Moderate**	Risk remained consistent with 2018 level	• Trade tensions between the US and China continue driven by trade imbalance and geopolitical tensions • In 2018 the US imposed trade tariffs on $550 billion of imports from China; China retaliated with tariffs on $185 billion of US goods. In March 2019, talks began to end the trade war. The talks were fraught with complications and the relationship between the two countries initially deteriorated • The countries have however recently announced a 'phase one' deal • Whilst the prospect of an all-out trade war has receded slightly, the situation remains fragile, particularly given the backdrop of the 2020 Presidential election and China's protest over the US Senate's passing of the HK Human Rights and Democracy Act which threatens Hong Kong's special trade status • As opposed to merely slowing global growth, the risks are that the US-China dispute persists, expands to other regions such as Europe, and ultimately develops into a full-blown global trade war • The PLC Group has a significant revenue stream from	• A sharp slowdown in US-China and, more broadly, world trade and global growth is a feature of the PLC Group stress scenarios including the Internal Capital Adequacy Assessment Process (ICAAP) and the annual Bank of England (BoE) stress testing exercise. This included a sharp slowdown in China scenario which was assessed in September 2019. These stress tests provide visibility to key vulnerabilities so that management can implement timely interventions

Risk profile

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
		supporting cross-border trade	
Hong Kong social unrest Potential impact: **High** Likelihood: **High** Velocity of change: **Fast**	Risk heightened in 2019	• In February 2019, the Hong Kong government proposed the Fugitive Offenders and Mutual Legal Assistance in Criminal Matters Legislation (Amendment) Bill (the 'Extradition Bill'), triggering significant public reaction from June onwards • Continual large-scale social unrest initially demanded the withdrawal of the proposed Extradition Bill but later expanded to cover other issues including transparency, justice and democracy. There is evidence of de-escalation since December 2019 although the situation remains fluid • Key economic indicators suggest a notable slowdown in Hong Kong's economy • The unrest has not had a significant effect on operations and the portfolio to date • Hong Kong remains the largest profit contributor to the PLC Group	• The PLC Group has formed a 'command centre' managed by Standard Chartered Bank Hong Kong, which assesses emerging risks and directs the PLC Group's response • The PLC Group's ongoing stress tests provide insight to develop strategies to mitigate these. Exposures that may result in material credit impairment and increased risk-weighted assets are closely monitored and actively managed • Detailed portfolio reviews are conducted on an ongoing basis, most recently in the fourth quarter of 2019
Middle East geopolitical tensions Potential impact: **High** Likelihood: **Medium** Velocity of change: **Moderate**	Risk heightened in 2019	• The past 12 months have seen an increase in volatility across the Middle East. Conflicts continue in Syria, Yemen, Lebanon and Iraq • Following Major General Qasem Soleimani's death in a US drone strike, Iran took retaliatory action against US bases in Iraq and Ukrainian International Airlines flight PS752 was downed by an Iranian missile when departing Tehran • Following the decision by the US to withdraw its troops from Northern Syria, Turkey commenced a military operation to create a buffer zone on its border with Syria. In response, Syrian and Kurdish forces agreed to align against the Turkish army • There were attacks on Saudi oil installations claimed by Houthi rebels fighting against Saudi Arabian and UAE forces in Yemen. The attacks temporarily closed down 5 per cent of global oil production and led to new US sanctions on Iran. The US authorised the deployment of additional forces to the region. Iran further reduced its compliance with the Joint Comprehensive Plan of Action and is expanding its stock of low-enriched uranium • Attacks on oil tankers took place in the Strait of Hormuz off the coast of UAE and Oman. The US attributed the attacks to Iran; an accusation Iran denied • The boycott of Qatar by the Arab quartet (Saudi Arabia, UAE, Bahrain and Egypt) continues and has contributed to the downward pressures on economic growth in the region. There is little incentive for the parties to alter their positions in the absence of any strong external pressure to do so • Qatar's internal outlook is more positive given the country's response to the blockade, improved self-reliance and high foreign currency reserves • The PLC Group has a material presence across the region	• The PLC Group has continued monitoring at regional and country level to detect horizon risks and analyse potential adverse developments • The direct impact on our Middle East portfolio to date has been limited, though the developments inevitably impact confidence and economic prospects for the region • Qatar's Risk Appetite and underwriting standards have been adjusted to reflect current conditions

Risk profile

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
Brexit implications Potential impact: **Low** Likelihood: **High** Velocity of change: **Steady**	Risk reduced in 2019	• The UK general election result has reduced the immediate risk surrounding the exit of the UK from the European Union (Brexit) and transition is currently due to continue until December 2020 • Brexit could have implications on the economic outlook for the Eurozone and the UK, which might in turn have global implications because of changes in policy direction. The uncertainties linked to Brexit negotiations could delay corporate investment decisions until there is more clarity	• We continue to assess and manage Brexit risk and the practical implications through the Brexit Executive Committee, which is chaired by a member of the Management Team. We have also evaluated the potential implications from a transition and will continue monitoring the progress of the political negotiations • The Brexit Programme has been extended into 2020 to ensure continued focus on Brexit deliverables • The PLC Group has set up a new EU subsidiary and optimised our EU structure to mitigate any potential impact to our clients, staff or the PLC Group because of Brexit, including loss of EU passporting rights
Japan-Korea diplomatic dispute Potential impact: **Medium** Likelihood: **High** Velocity of change: **Steady**	Risk heightened in 2019	• As the Japan-Korea dispute over wartime labour compensation escalated, Japan imposed export restrictions on South Korea along with other key Asian countries such as China and Singapore, regarding important raw materials for semiconductors and organic light emitting diode (OLED) displays, with effect from 4 July 2019 • South Korean chip manufacturers rely on these imports • This supply shortage is expected to have minimal immediate impact because the use of these raw materials is limited to high-end products. However, adoption of these advanced technologies is critical for retaining technological leadership and is expected to accelerate in the medium term • These are important markets for the PLC Group	• We anticipate very limited impact on the PLC Group and no portfolio-level actions have been taken. The PLC Group performed a portfolio review and will continue to monitor exposure • There is continuous monitoring at a country, regional and PLC Group level to identify emerging risks and evaluate their management

Potential impact Refers to the extent to which a risk event might affect the PLC Group	**Likelihood** Refers to the possibility that a given event will occur	**Velocity of change** Refers to when the risk event might materialise
High *(significant financial or non-financial risk)*	High *(almost certain)*	Fast *(risk of sudden developments with limited time to respond)*
Medium *(some financial or non-financial risk)*	Medium *(likely or possible)*	Moderate *(moderate pace of developments for which we expect there will be time to respond)*
Low *(marginal financial or non-financial risk)*	Low *(unlikely or rare)*	Steady *(gradual or orderly developments)*

Risk profile

Macroeconomic considerations

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
Novel coronavirus outbreak, China slowdown and impact on regional economies with close ties to China Potential impact: **High** Likelihood: **High** Velocity of change: **Fast**	Risk heightened in 2019	• Asia remains the main driver of global growth supported by internal drivers, led by China • Chinese authorities have confirmed a new coronavirus 'Covid-19', which is a family of viruses that cause respiratory infections such as severe acute respiratory syndrome (SARS) and middle east respiratory syndrome (MERS) • By 31 January 2020, the World Health Organisation declared a global health emergency as the outbreak spread well beyond China with the majority of cases in mainland China • Governments around the world have taken measures to contain the spread of the virus including travel restrictions. Some companies have scaled back their operations in China • The rapid spread of the novel coronavirus outbreak presents risks to regional economic growth • The outbreak has raised comparisons with SARS in 2003, which infected over 8,000 people and led to approximately 700 deaths. SARS caused widespread economic disruption as fear of infection resulted in a reduction in retail activity as well as a downturn in hospitality and tourism. There are risks the effect will be greater due to China's increased global economic importance • The economic impact of the novel coronavirus outbreak will depend on how the virus spreads and the response of the authorities. Prior to the outbreak, China GDP growth slowed to 6.0 per cent in Q3 and 6.1 per cent in Q4 2019, the weakest pace in almost 30 years • Highly trade-oriented economies such as Hong Kong and Singapore with close ties to China would weaken in the event of an economic slowdown. Regional supply chain economies such as Korea, Taiwan and Malaysia would also be impacted from a fall in economic activity • Greater China, North Asia and South East Asian economies remain key strategic regions for the PLC Group and Hong Kong remains the largest profit contributor	• In response to the novel coronavirus outbreak the PLC Group's priority is to ensure the health and safety of our clients and employees and continue normal operations by leveraging our robust Business Continuity Plans • As part of our stress tests, a severe stress in the global economy associated with a sharp slowdown in China was assessed in September 2019 in addition to the ICAAP and BoE 2019 stress tests • Exposures that result in material credit impairment charges and risk-weighted assets inflation under stress tests are regularly reviewed and actively managed • A global downturn with shocks concentrated on China and countries with close trade links with China is one of the regularly run market and Traded Risk stress tests • We continue to monitor data from Greater China, North Asia and South East Asia regions

Risk profile

Environmental and social considerations

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
Climate-related transition and physical risks[1] Potential impact: **High** Likelihood: **High** Velocity of change: **Moderate**	Risk heightened in 2019	• National governments have, through the United Nations Framework Convention on Climate Change process and Paris Agreement, made commitments to enact policies which support the transition to a lower-carbon economy, limiting global warming to "well below 2°C" and therefore mitigating the most severe physical effects of climate change • The PRA published its formal Supervisory Statement SS 3/19 with regards to climate-related risks in April 2019. The Supervisory Statement requires significant measures to be taken by banks in identification, assessment, management, reporting, governance and disclosure of the financial and non-financial risks arising from climate change. The expectation is that regulatory guidance and expectation will increase • Such policies may have significant impacts, for example on energy infrastructure developed in our markets, and thus present 'transition' risks for our clients. The PLC Group, for example, could be impacted by climate change from a credit or reputational perspective due to the impact on our clients' operations or their underlying business model • Conversely, if governments fail to enact policies which limit global warming, the PLC Group's markets are particularly susceptible to 'physical' risks of climate change such as droughts, floods, sea level change and average temperature change	• The PLC Group recognises the distinction and linkages between managing its contribution to climate change (through direct and financed emissions) and managing the financial and non-financial risks arising from climate change. The PLC Group is committed to respond responsibly and with urgency on both • The 2019 Taskforce for Climate-related Financial Disclosures (TCFD)-aligned disclosures provide details on the PLC Group's progress. The TCFD report includes current emissions intensities for the automotive and cement manufacturing portfolios, as measured through the pilot methodology developed by 2 Degrees Investing Initiative • The PLC Group announced that it will only support clients who actively transition their business to generate less than 10 per cent of earnings from thermal coal by 2030. The PLC Group recognises, however, that transitioning to clean technology will require significant changes across our markets, and because of that has chosen to implement this decision on a phased basis, using set milestones, beginning 1 January 2021. The environmental and social requirements are documented in our Position Statements and our Prohobited Activities include aspects of oil and gas and mining and metals sectors • The PLC Group has a public target to fund and facilitate $35 billion towards renewable energy from 2020 to the end of 2024 • A Climate Risk Management Forum has been established internally to provide oversight on the development and implementation of the Climate Risk framework • The PLC Group is a member of the Risk Management Working Group under the BoE's Climate Financial Risk Forum and led the Framework and Governance section of the handbook • We are actively collaborating with clients, regulators, investors, peer banks, external experts and coalition platforms (such as United Nations Environment Programme Finance Initiative (UNEP-FI) to solve the collective challenges in the approach to managing climate-related risks

1 Physical risk refers to the risk of increased extreme weather events while transition risk refers to the risk of changes to market dynamics due to governments' responses to climate change

Risk profile

Legal considerations (Risk ranked according to severity)

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
Interbank Offered Rate ('IBOR') discontinuation and transition Potential impact: **High** Likelihood: **High** Velocity of change: **Moderate**	Risk heightened in 2019	• With the significant decrease in liquidity and volume of transactions upon which the London Interbank Offered Rate (LIBOR) benchmark submissions are made, regulators have expressed concern over the robustness and sustainability of the IBOR benchmarks. In 2014, the Financial Stability Board published a report on reforming major interest rate benchmarks, seeking alternative risk free rates (RFRs) for the IBOR currencies (US dollar, pound sterling, euro, Swiss franc and Japanese yen) • In 2017, the UK Financial Conduct Authority (FCA) announced that it had reached an agreement with LIBOR panel banks to contribute to LIBOR until the end of 2021. It is likely that several panel banks will cease contributing to LIBOR by the end of 2021, leading to LIBOR's cessation. Given this, the FCA called for the industry to start preparing for LIBOR cessation, by transitioning from IBORs to RFRs • Transition from LIBOR to RFRs presents several risks: (i) there are fundamental differences between LIBOR and RFRs and value transfer may arise in transitioning contracts from one to the other; (ii) the market may transition at different paces in different regions and across different products, presenting various sources of basis risk and posing major challenges on hedging strategies; (iii) clients may not be treated fairly through-out the transition or may not be aware of the options available to them and the implications of decisions taken, which may result in unfair financial detriment, (iv) changes in processes, systems and vendor arrangements associated with the transition may not be within appropriate tolerance levels, (v) Legal risk in relation to the fall-back risks associated with the transition and (vi) Accounting and Financial Reporting risk in that the changes in underlying rates, such as on cashflows and valuations, may not be incorporated correctly • The lack of liquidity in some of the RFR markets may present challenges to the transition until resolved, as will the likely different transition timelines for the five LIBOR currencies. The efficiency of our contract digitisation and remediation work is heavily reliant on the release of standardised fall-back language, including the outcomes of the Tough Legacy Task Force, established under the Sterling Risk-Free Reference Rates Working Group. Complexity in managing the IBOR transition is also increasing as a result of growing interest from a number of our local regulators, given our footprint, and the work required where there are local IBORs requiring transition as well • As LIBOR is the most widely used benchmark, its cessation and transition to RFRs will have profound impact on all participants in the financial markets • Whilst the PLC Group does not submit to LIBOR, LIBOR is heavily relied upon by the PLC Group as a reference rate for many financial instruments	• The PLC Group has set up a global IBOR Transition Programme to consider all aspects of the transition and how risks from the transition can be mitigated. A Management. Team member is the Senior Manager for the IBOR Transition Programme • Efforts to raise awareness of the transition, both internally and with clients, have started, with internal training sessions and client seminars held in Thailand, Hong Kong and Singapore as of December 2019 • From an industry and regulatory perspective, the PLC Group is actively participating in and contributing to different RFR Working Groups, industry associations and business forums focusing on different aspects of the LIBOR (or IBOR, as applicable) to RFR transition • The PLC Group monitors the developments at these IBOR-related forums and reflects and aligns significant industry decisions into transition plans, as required

Risk profile

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps

Regulatory changes
 	
Potential impact: **Medium**
Likelihood: **High**
Velocity of change: **Steady**
	Risk remained consistent with 2018 level	• Rules have been defined in many key areas of regulation that could impact our business model and how we manage our capital and liquidity positions
		• Prudential treatment of software: The Capital Requirements Regulation (CRR) II introduces a new prudential treatment for software intangibles: t excludes "prudently valued" software assets from the scope of those assets which must be deducted from Common Equity Tier 1. According to CRR II, the value of "prudently valued" software assets is not materially affected by resolution, insolvency or liquidation
		• Crypto assets: There is currently considerable uncertainty around the regulatory treatment of crypto assets. In May 2019, the Financial Stability Board published a report that referred to the ongoing work by the Basel Committee. While the current Basel framework does not set out an explicit treatment of banks' exposures to crypto assets, it does set out minimum requirements for the capital and liquidity treatment of "other assets". The BCBS is now considering whether to formally clarify the prudential treatment of crypto-assets across the set of risk categories (credit risk, counterparty credit risk, market risk, liquidity risk, etc.)
		• Other: These include the upcoming Basel III changes to capital calculation methodology for credit and operational risk, revised framework for Credit Valuation Adjustment risk, Fundamental Review of the Trading Book and implementation of Margin Reforms
		• Ongoing regulatory scrutiny and emphasis on local responsibilities for remotely booked business. The degree of reliance on global controls is reducing, and the focus is on local controls and governance
			• We actively monitor regulatory initiatives across our footprint to identify any potential impact and change to our business model
			• With respect to the finalisation of Basel III:
			  o The PLC Group has mobilised a Risk & Finance sponsored Programme to undertake a comprehensive assessment of the Capital and Operational impacts of the Basel III Finalisation regulations. Capital optimisation efforts and business strategies are being reviewed considering these requirements
			  o We continuously review a menu of prospective capital accretive actions, along with their impact on the PLC Group strategy and financial performance
			• Relevant product areas have implemented project management or programme oversight to review and improve the end-to-end process, including oversight and accountability, policies and standards, transparency and management information, permission and controls, legal-entity level limits and training

Regulatory reviews and investigations, legal proceedings Potential impact: **High** Likelihood: **Medium** Velocity of change: **Moderate**	Risk remained consistent with 2018 level	• The PLC Group has been, and will continue to be, subject to regulatory actions, reviews, requests for information (including subpoenas and requests for documents) and investigations across our markets, the outcomes of which are generally difficult to predict and could be material to the PLC Group • In recent years, authorities have exercised their discretion to impose severe penalties on financial institutions in connection with violations of laws and regulations, and there can be no assurance that future penalties will not be of similar or increased severity • The PLC Group is also party to legal proceedings from time to time, which may give rise to financial losses or adversely impact our reputation in the eyes of our customers, investors and other stakeholders	• We continue to invest in enhancing systems and controls, and implementing remediation programmes where relevant • The PLC Group cooperates with regulatory reviews, requests for information and investigations and actively manages legal proceedings • We continue to train and educate our people on relevant issues including conduct, conflicts of interest, information security and financial crime compliance in order to reduce our exposure to legal and regulatory proceedings

Risk profile

Technological considerations (Risk ranked according to severity)

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
New technologies and digitisation (including business disruption risk, responsible use of Artificial Intelligence and Obsolescence Risk) Potential impact: **High** Likelihood: **High** Velocity of change: **Fast**	Risk remained consistent with 2018 level	• Innovation in the financial services industry is happening at a relentless pace. Artificial intelligence (AI) and blockchain technology have continued to gather speed with a growing number of use cases that address evolving customer expectations to which the PLC Group must adapt its operating model or risk competitive disadvantage • In Retail Banking, the PLC Group continues to observe significant shifts in customer value propositions as markets deepen. Fintechs are delivering digital-only banking offerings with a differentiated user experience, value propositions and product pricing. There is growing usage of AI and machine learning (ML) to deliver highly personalised services, e.g. virtual chatbots to provide digital financial advice and predictive analytics to cross-sell products. The PLC Group may be unable to compete effectively if it fails to appropriately invest in innovation and disruptive technologies • In the Corporate Banking sector, we continue to observe an increasing focus on process digitisation to streamline processes and provide scalable and personalised solutions for corporate clients. There are growing use cases for blockchain technologies, e.g. streamline cross-border payments and automate key documentation. AI and ML have also been increasingly used in predictive risk modelling, e.g. loan default forecasting. Failure to expediently adapt and harness such technologies would place the PLC Group at a competitive disadvantage • There is an increasing usage of partnerships and alliances by banks to respond to a rapidly changing banking landscape and disruption from existing players and new entrants. This is making partnerships and alliances an integral part of banks' emerging business model and value proposition to the clients • As these new technologies grow in sophistication and become further embedded across the banking and financial services industry, banks may become more susceptible to technology-related risks. For example, the growing usage of big data and cloud computing solutions has heightened cyber security risks in banks. Banks may also face increased risks of business model disruption as new products and technologies continue to emerge • Regulators are increasing emphasis on the importance of resilient technology infrastructure in terms of elimination of cyber risk and improving reliability. The challenge is in renewing our techonology and infrastructure to reduce the risks presented by obsolescence when the demands of delivering ongoing technology investment into this estate and its required performance levels continue to rise significantly	• The PLC Group continues to undertake a rigorous approach in monitoring emerging trends and new developments, opportunities and risks in the technology space which may have implications on the banking sector. We manage the risks at two levels: firstly, staying relevant to clients and markets and; secondly understanding and managing new types of risk • In 2017, the PLC Group set up the SC Ventures unit to spearhead PLC Group-wide digital advancement. The unit is gaining momentum to promote innovation, invest in disruptive technologies and deliver client digital solutions. SC Ventures recently launched its eXellerator innovation lab in China, adding to the PLC Group's other eXellerator labs in Singapore, Hong Kong, London, San Francisco and Kenya. The labs are designed to drive innovation, invest in promising fintech and implement new business models in banking • The PLC Group has continued to make headway in harnessing new technologies to develop innovative solutions. This has included deploying blockchain technology solutions to digitise cross-border trade documents and optimise supply chain financing. The PLC Group is also co-creating new solutions and establishing new partnerships to improve the client experience. For example, the PLC Group recently announced a strategic partnership with SAP Ariba to make SCB's financial supply chain solutions accessible to businesses in the Asia Pacific region through Ariba Network. This is the world's largest digital business network • The PLC Group has an integrated strategy to leverage technology to manage cyber risk and combat cyber-enabled financial crime. Rapid adoption of new technologies requires that we also determine how the PLC Group's security standards, capabilities and processes need to be applied. In some cases, this includes adapting new security aspects considering new technology. The PLC Group is also implementing a framework to ensure Fairness, Ethics, Accountability and Transparency in the PLC Group's usage of data analytics and AI • The PLC Group maintains its vigilant watch on legal and regulatory trends in relation to the usage of new technologies and related data risks. We are also developing a crypto asset risk framework to better manage these risks

Risk profile

Emerging Risk	Risk trend since 2018	Context	How these are mitigated/next steps
			• The PLC Group is actively targeting the reduction of obsolescent/end of support technology following a Technology & Innovation led programme under the oversight of the Risk function and the PLC Group's senior executives. The target is to address the PLC Group's obsolescence risk by evergreening and use of new technologies such as the Cloud. We also continue to focus on clients by delivering on outage reductions, enhanced protection by raising cyber defences and efficiency by improvements to technology deployment
Increased data privacy and security risks from strategic and wider use of data Potential impact: **High** Likelihood: **High** Velocity of change: **Moderate**	Risk remained consistent with 2018 level	• As digital technologies grow in sophistication and become further embedded across the banking and financial services industry, the potential impact profile with regards to data risk is changing. Banks may become more susceptible to technology-related data security risks as well as customer privacy issues. The growing use of big data for analysis purposes and cloud computing solutions are examples of this • In addition, these risks represent an emerging and topical theme both from a regulatory and compliance perspective (i.e. the EU General Data Protection Regulation (GDPR) raises the profile of data protection compliance) • As the PLC Group moves towards cloud computing solutions and an increasing use of big data for analysis purposes, this leads to increased susceptibility to data security and customer privacy risks	• We have existing governance and control frameworks for the deployment of new technologies and services and are developing a Data Management risk sub-type • To manage the risks posed by rapidly evolving security threats and technology adoption, we have designed a Transformation and Remediation Portfolio (TRP). This is a multi-year initiative with a focus on security improvements and providing assurance to regulators that we are building a sustainable Information and Cyber Security programme that will secure its information and technology assets for the long-term. The programme is progressing with capability being built out in multiple areas including governance, investment prioritisation and execution risk management • We maintain a vigilant watch on legal and regulatory developments in relation to data protection and customer privacy to identify any potential impact to the business and to implement appropriate mechanisms to control this risk • For the PLC Group, GDPR principally impacts PLC Group locations and client segments in the EU, functions such as Human Resources and downstream suppliers such as hubs and external vendors that process personal data caught by the GDPR ('EU personal data'). A GDPR programme has been established to review and remediate vendor contracts and intra-group agreements that involve the processing of EU personal data

Standard Chartered Bank
Capital review

Capital management and governance

The Group's capital and leverage position is managed within the Board-approved Risk Appetite. Further detail is provided within the Enterprise Risk Management Framework section on (page 139).

Standard Chartered Bank is authorised by the PRA and regulated by the Financial Conduct Authority and the PRA as Standard Chartered Bank (Solo Consolidated). Following the completion of the Standard Chartered PLC Group reorganisation (Note 40), Standard Chartered Bank continues to operate through its branches and a number of subsidiaries, all of which remain well capitalised in line with their applicable Board-approved Risk Appetites which takes into account local regulations, Pillar 1 and 2 requirements and regulatory and management buffers as applicable.

Subsequent to the transfer of shares in the Group's entities in Hong Kong, China, Korea and Taiwan to other entities within the Standard Chartered PLC Group as part of the restructuring exercise to create a GCNA hub entity under the Group's parent Standard Chartered PLC, the Group's CET1 ratio capital position remained strong at 12.4 per cent with low leverage and high levels of loss absorbing capacity. Compared to 31 December 2018, the Group's CET1 ratio declined 262 bps mainly due to the creation of the GCNA hub.

For further details on the re-organisation refer to Note 40.

Standard Chartered Bank
Capital review

Capital ratios (unaudited)

	2019	2018
CET1	**12.4%**	15.0%
Tier 1 capital	**15.9%**	17.5%
Total capital	**21.5%**	21.5%

CRD IV Capital base[1]

	2019 $million	2018 $million
CET1 instruments and reserves		
Capital instruments and the related share premium accounts	**19,320**	26,820
Of which: share premium accounts	**296**	296
Retained earnings	**15,723**	19,352
Accumulated other comprehensive income (and other reserves)	**(3,813)**	(5,176)
Non-controlling interests (amount allowed in consolidated CET1)	**697**	3,829
Independently reviewed interim and year-end profits	**(3,705)**	873
Foreseeable dividends net of scrip	**(233)**	(221)
CET1 capital before regulatory adjustments	**27,989**	45,477
CET1 regulatory adjustments		
Additional value adjustments (prudential valuation adjustments)	**(409)**	(564)
Intangible assets (net of related tax liability)	**(3,794)**	(4,720)
Deferred tax assets that rely on future profitability (excludes those arising from temporary differences)	**(83)**	(115)
Fair value reserves related to net losses on cash flow hedges	**11**	27
Deduction of amounts resulting from the calculation of excess expected loss	**(686)**	(875)
Net gains on liabilities at fair value resulting from changes in own credit risk	**(24)**	(391)
Defined-benefit pension fund assets	**(12)**	(36)
Fair value gains arising from the institution's own credit risk related to derivative liabilities	**(28)**	(127)
Exposure amounts which could qualify for risk weighting of 1250%	**(39)**	(123)
Total regulatory adjustments to CET1	**(5,064)**	(6,924)
CET1 capital	**22,925**	38,553
Additional Tier 1 capital (AT1) instruments	**6,626**	6,500
AT1 regulatory adjustments	**(20)**	(20)
Tier 1 capital	**29,531**	45,033
Tier 2 capital instruments	**10,366**	10,461
Tier 2 regulatory adjustments	**(30)**	(30)
Tier 2 capital	**10,336**	10,431
Total capital	**39,867**	55,464
Total risk-weighted assets (unaudited)	**185,615**	257,497

1 CRD IV capital is prepared on the regulatory scope of consolidation

Leverage ratio (unaudited)

Capital and total exposures	2019 $million	2018 $million
Tier 1 capital	**28,038**	43,533
Total leverage ratio exposures	**582,597**	799,174
Leverage ratio	**4.8%**	5.4%

Independent Auditor's report

to the members of Standard Chartered Bank

1. Our opinion is unmodified

We have audited the financial statements of Standard Chartered Bank ("the Company") and its subsidiaries (together "the Group"), for the year ended 31 December 2019 which comprise the consolidated income statement, the consolidated statement of comprehensive income, the consolidated balance sheet, the consolidated statement of changes in equity, the Group and Company cash flow statements, the Company balance sheet, the Company statement of changes in equity and the related notes, including the accounting policies in Note 1.

In our opinion:

→ the financial statements give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2019 and of the Group's profit for the year then ended;
→ the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs as adopted by the EU);
→ the parent Company financial statements have been properly prepared in accordance with IFRSs as adopted by the EU and as applied in accordance with the provisions of the Companies Act 2006; and
→ the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion. Our audit opinion is consistent with our report to the audit committee.

We were first appointed as auditor by the company before 1973. The period of total uninterrupted engagement is for more than the 47 financial years ended 31 December 2019. We have fulfilled our ethical responsibilities under, and we remain independent of the Group in accordance with, UK ethical requirements including the FRC Ethical Standard as applied to listed public interest entities. No non-audit services prohibited by that standard were provided.

Risks of material misstatement		vs 2018
Recurring risks	Credit impairment	▲
	User access management	◄►
	Valuation of financial instruments held at fair value	◄►
	Goodwill	◄►

2. Key audit matters: our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including 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. We summarise below the key audit matters, in decreasing order of audit significance, in arriving at our audit opinion above, together with our key audit procedures to address those matters and, as required for public interest entities, our results from those procedures. These matters were addressed, and our results are based on procedures undertaken, in the context of, and solely for the purpose of, our audit of the financial statements as a whole, and in forming our opinion thereon, and consequently are incidental to that opinion, and we do not provide a separate opinion on these matters.

Key audit matters	The risk	How our audit addressed the key audit matter
Credit impairment **Group:** Charge: $699 million (2018: $ 587 million) Provision: $5,724 million (2018: $7,401 million) **Company:** Charge: $457 million (2018: $ 543 million) Provision: $4,287 million (2018: $4,945 million) Refer to page 168 (Note 8 Credit Impairment – financial disclosures and accounting policy), page 177 (Note 12 Financial instruments - accounting policy), page 225 (Note 14 Loans and advances to banks and customers – financial disclosures) and page 48 (Credit risk financial disclosures)	**Subjective estimate** The estimation of expected credit losses ("ECL") on financial instruments involves significant judgement and estimates. The carrying value of financial instruments within the scope of IFRS 9 ECL may be materially misstated if judgements or estimates made by the Group are inappropriate. The most significant areas where we identified greater levels of management judgement in the Group's estimation of ECLs and therefore required greater levels of audit focus are:	Our procedures included:
	• Significant Increase in Credit Risk ("SICR") –the identification of Early Alert Non-Purely Precautionary as a qualitative indicator for identifying a significant increase in credit risk is highly judgemental and can materially impact the ECL recognised for wholesale facilities with a tenor greater than 12 months as these determine whether a 12 month or lifetime provision is recorded.	**Control design, observation and operation:** We tested the design, implementation and operational effectiveness of controls over the assessment and calculation of material SICR indicators and criteria, including credit risk monitoring controls over the Early Alert process. **Assessing application of methodology:** We performed the following procedures; • Inspected the Group's papers on technical decisions, including the appropriateness of SICR thresholds • Inspected and challenged management's assessment of SICR monitoring • We performed credit file reviews over a sample of stage 1 and stage 2 (good book) counterparties to assess whether management's qualitative staging criteria had been appropriately applied, given the use of Early Alert Non-Purely Precautionary status as a stage 2 trigger **Our financial risk modelling expertise:** We involved our own financial risk modelling specialists in evaluating the appropriateness of the Group's SICR criteria. We assessed on a sample basis the appropriateness of the allocation of facilities into either stage 1 or stage 2.
	• Economic base case – IFRS 9 requires the Group to measure ECL on a forward-looking basis, incorporating future macro-economic variables (MEVs) reflecting a range of future conditions. The first five years of the economic base case is the key driver of the range of future conditions.	**Control design, observation and operation:** We tested the design, implementation and operational effectiveness of management's review of the base case economic forecast for all MEVs. **Our economic scenario expertise:** We involved our economics specialists to assist us in assessing the appropriateness of the Group's methodology and model for determining the economic scenarios used. We also assessed the key economic variables used which included benchmarking samples of economic variables to independent external sources as well as assessing whether the base forecast used by the Group is indicative of bias. **Independent re-performance:** We independently challenged management's base forecast by calculating the impact on ECL of replacing management's forecast for material MEVs over a 5 year time horizon with economic Consensus values at year-end and comparing the results with management's calculations.

Key audit matters	The risk	How our audit addressed the key audit matter
	• Complex ECL models – inherently judgemental modelling techniques are used to estimate ECLs which involves determining Probabilities of Default ("PD"), Loss Given Default ("LGD") and Exposure at Default ("EAD"). The PD Models specifically identified as significant are: Global Corporate; Rest-Of-World Commercial; Retail Malaysia Personal Loans and Retail Singapore Cards.	**Control design, observation and operation:** We tested the design, implementation and operational effectiveness of model monitoring controls and Group Model Validation's (GMV) revalidation of IFRS 9 credit models. **Our financial risk modelling expertise:** We involved our financial risk management modelling specialists to assist us in assessing the appropriateness of material models used by the Group. For these models, we assessed the credit risk modelling approach and methodology, re-performed certain aspects of the model validation and independently evaluated model monitoring results arising in the year. We have also challenged the completeness and accuracy of material post model adjustments calculated to address areas of identified model underperformance. **Independent re-performance:** For material models, we independently recalculated the PD, EAD and LGD for a sample of exposures, comparing the results with management's calculations.
	• Qualitative adjustments – adjustments to model-driven ECL results are raised to address model limitations or emerging risks and trends in underlying portfolios, which are inherently judgemental.	**Control design, observation and operation:** We tested the design, implementation and operational effectiveness of management's control in relation to review of the ECL output, including the IFRS 9 Impairment Committee review and approval of any overlay **Assessing qualitative adjustments to model-driven ECL:** We assessed the appropriateness of overlays to model-driven ECL by performing the following procedures; • Tested a sample (risk based) of good book individual credit impairments for Corporate & Institutional Banking (CIB) and Commercial banking (CB) to identify any pockets of stress • Assessed and challenged management overlays applied to modelled ECL output specifically around the need for overlays arising from specific macro-economic issues • Assessed the completeness of management's ECL year-end true-up adjustments, including assessing whether overlays are required for geo-political or economic events or modelling deficiencies • Substantively tested the inter-system data flows and performed procedures to assess the integrity of underlying credit data used in the ECL calculation
	• Individually assessed stage 3 exposures carrying value – the carrying value of loans and advances to banks and customers, may be materially misstated if individual impairments are not appropriately identified and estimated. The identification of impaired assets and the estimation of impairment are highly judgmental. We have identified, estimation of future cash flows,	**Control design, observation and operation:** We tested the design, implementation and operational effectiveness of credit downgrade controls, including reduction of limits, completion of downgrade checklists and management's approval of IFRS 9 impairment calculations. **Assessing individual exposures:** We selected a sample (based on quantitative thresholds) of larger clients identified by the Group as either high risk stage 2 or stage 3. We obtained the

Key audit matters	The risk	How our audit addressed the key audit matter

	valuation of collateral and probability weighting of scenarios to be the assumptions with high estimation uncertainty.	Group's assessment of the recoverability of these exposures and challenged whether individual impairment provisions, or lack of, were appropriate. Our procedures varied based on whether the account was classified as higher risk stage 2 or stage 3;
		• High risk stage 2 – For each of the sampled loans we assessed the appropriateness of the classification of the account as a higher risk performing loan and the (Group Special Assets Management (GSAM) review of the Stage 2 ECL attributed to the account.
		• Stage 3 – Our procedures focused on the underlying recovery scenarios and assumptions, and the weighting applied to each scenario. On a case-by-case basis we:
		  • Assessed the underlying cash flows through challenge of underlying scenarios and corroboration to evidence
		  • Tested collateral valuations through inspecting valuation reports and, where relevant performed procedures to determine the reliability of management's expert
		  • Confirmed that underlying data driving assumptions was accurate by agreeing to source documents such as loan agreements
		  • Corroborated legal proceedings influencing the Group's recovery through publicly available documents
		  • Performed sensitivity analysis on probability weightings assigned to each scenario

	The effect of these matters is that, as part of our risk assessment, we determined that the value of ECL has a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole. The financial statements (see page 85) disclose the sensitivity estimated by the Group.	**Assessing transparency:** We assessed whether the disclosures relating to ECL appropriately explain the uncertainty which exists when determining the expected credit losses. As a part of this, we assessed the sensitivity analysis that is disclosed. In addition, we assessed whether the disclosure of the key judgements and assumptions made by management is sufficiently clear. **Response to model performance issues:** Due to model performance issues identified during the performance of management's routine controls (over model validation and model monitoring) our audit risk associated with complex ECL models increased. As a result, we expanded the extent of our testing over complex ECL models and qualitative adjustments by performing additional substantive procedures to address the heightened risk. Such additional procedures included: • Reproduction and evaluation of the management analysis used to corroborate ECL model outputs

Key audit matters	The risk	How our audit addressed the key audit matter
		• Independent development of a challenger approach to assess the reasonableness of model outputs • Replication of model validation tests for new models developed to quantify model adjustments at year end • Where relevant, assessment and evaluation of management's qualitative analysis used to conclude on the appropriateness of model outputs **Our results:** We considered the credit impairment charge, the provision recognised and the related disclosures to be acceptable (2018: acceptable)
User access management	**Control performance** The Group's key financial accounting and reporting processes are highly dependent on the automated controls over the Group's IT systems. There is a risk that gaps in the user access management controls specifically in relation to privileged user access management for key financial accounting and reporting systems may undermine our ability to place some reliance thereon in our audit.	Our procedures included: **Control design, observation and operation:** We tested the design, operation and effectiveness of controls over granting, removal and appropriateness of access rights, including privileged access rights. **Test of details:** We obtained the Group's evaluation of the access rights, including privileged access rights, granted to applications relevant to financial accounting and reporting systems and tested the resolution of a sample of exceptions. **Our results:** Our testing identified some weaknesses in the design and operation of user access management controls (2018: We identified some control weaknesses). As a result we extended our testing by testing a combination of mitigating controls and substantive testing to address control weaknesses identified, including: • Tested the design and operation of alternative monitoring controls, including access administration and monitoring of activity using privileged users, incident management and change management • Obtained and inspected the last log in dates of users with privileged access, to identify whether they accessed any financial accounting and reporting system during 2019 • Assessed the nature of user IDs not subject to monitoring controls to ascertain the level of privilege and potential impact on financial and reporting systems • Obtained and evaluated reports which assessed the coding of the in scope applications to evaluate whether any unauthorised changes have taken place When the above mitigating procedures were performed, we have reduced the audit risk relating to user access management controls to an acceptable level. (2018: Acceptable)
Valuation of financial instruments held at fair value **Group:**	**Subjective estimate** The valuation of level 3 financial instruments held at fair value through profit or loss or through other comprehensive income may be	Our procedures included: **Control design, observation and operation:** We tested the design, implementation and operational effectiveness of the Group's controls

<table>
<tr><th>Key audit matters</th><th>The risk</th><th>How our audit addressed the key audit matter</th></tr>
<tr><td>Fair value of level 3 asset positions $1,251 million comprising 0.6% of total fair value financial instrument assets (2018: $2,888 million, 1.2%)

Fair value of level 3 liability positions $443 million comprising 0.4% of total fair value financial instrument liabilities (2018: $508 million, 0.4%)

Company:

Fair value of level 3 asset positions $1,363 million (2018: $1,042 million)

Fair value of level 3 liability positions $404 million (2018: $399 million)

Refer to page 177 (Note 12 Financial instruments)</td><td>misstated due to the application of valuation techniques which often involve the exercise of judgement and the use of assumptions and estimates.

A subjective estimate exists for instruments where the valuation method uses significant unobservable inputs which is principally the case for level 3 financial instruments.

Our work focused on the following:

• identification of level 3 positions
• valuation of level 3 positions, including unlisted investments in the Principal Finance business and derivatives with significant unobservable pricing inputs
• modelling of, and key inputs into, the valuation of derivative and other instruments classified as level 3

The effect of these matters is that, as part of our risk assessment, we determined that the valuation of level 3 instruments has a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole. The financial statements (page 208) disclose the sensitivity estimated by the Group.</td><td>over the identification and measurement of Level 3 financial instruments including independent price verification controls, model validation and pricing inputs.

Methodology assessment: For a sample of level 3 positions, our own valuations specialist assisted us in assessing the reasonableness of valuation methodologies, model calculation, inputs and assumptions used, considering potential alternatives and sensitivities to key inputs

Independent re-performance: With the assistance of our own valuation specialists we independently re-valued a selection of positions and challenged management on the valuations where they were outside our expected tolerance

Assessing completeness: We assessed the methodology applied for the fair value hierarchy. For a sample of level 2 and 3 financial instruments we challenged the appropriateness of the levelling classification. This included determining whether level 2 financial instruments met the requisite criteria to be classified as such.

Assessing transparency: We assessed whether the disclosures appropriately explain the uncertainty which exists in the valuation of level 3 financial instruments. In addition, we assessed whether the disclosure of the key judgements and assumptions made by management is sufficiently clear.

Our results: We considered the valuation of level 3 financial instruments held at fair value and the related disclosures to be acceptable (2018: acceptable).</td></tr>
<tr><td>Goodwill impairment

Group:

Impairment: $23 million

(2018: $nil)

Goodwill: $1,828 million (2018: $2,690 million)

Company:

Impairment: $598 million

(2018: $nil)

Goodwill: $344 million (2018: $955 million)

Refer to page 228 (Note 16 Goodwill and Intangible assets including accounting policies)</td><td>Subjective estimate

Goodwill may be misstated if the carrying value of goodwill in the balance sheet is not supported by the estimated discounted future cash flows of the underlying businesses (the “value in use”).

The identification of indicators of impairment and the preparation of the estimate of value in use involves subjective judgements and uncertainties.

Our work focused on cash generating units (CGUs) which have low headroom or significantly reduced headroom, including:

• India
• Pakistan

The effect of these matters is that, as part of our risk assessment, we determined that goodwill impairment has a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole. The financial statements (page 230) disclose the sensitivity estimated by the Group.</td><td>Our procedures included:

Methodology assessment: Assessed whether the segmentation of the CGUs reflects our understanding of the business and how it operates including assessment of the independence of the underlying cash flows.

Benchmarking assumptions: For a sample of CGUs, including those identified opposite, compared the growth rate assumptions to externally derived data for key inputs, including projected economic growth

Our expertise: Our valuation specialists assisted us in assessing the appropriateness of the discount rates for a sample of CGUs, including those identified opposite, independently calculating discount rate ranges using external data sources and peer bank data for local risk free rates, betas and market/country/entity risk premiums.

Sensitivity analysis: Performing breakeven analysis on the discount rate and the future cash flows

Reliability of forecasts: Evaluated the reasonableness of key management judgements and considerations in estimating the forecasts

Historical comparison: Assessed the Group’s ability to accurately prepare forecasts by comparing to actual results</td></tr>
</table>

Key audit matters	The risk	How our audit addressed the key audit matter
		Consistency comparison: Assessed the consistency of projected cash flows to the Board approved corporate plan **Assessing transparency:** We assessed whether the group's disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions reflected the risks inherent in the valuation of goodwill. **Our results:** We considered the goodwill impairment recognised, the goodwill balance and the related disclosures to be acceptable. (2018: acceptable).

We continue to perform procedures over legal and regulatory matters. However, following the settlement in 2019 of the US and UK regulatory investigations in relation to historical sanction breaches, we have not assessed this as one of the key audit matters in our current year audit and, therefore, it is not separately identified in our report this year.

3. Our application of materiality and an overview of the scope of our audit

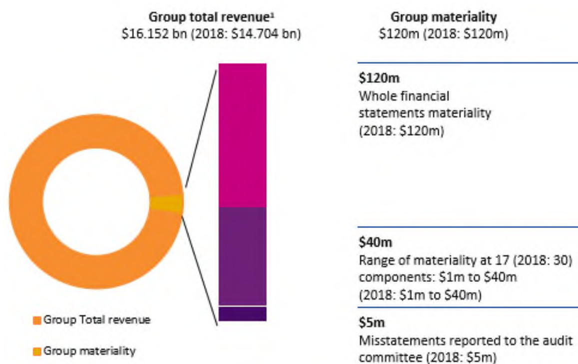
Materiality

Materiality for the Group financial statements as a whole was set at $120 million (2018: $120 million) determined with reference to a benchmark of total revenue for the year of $16,152 million. In the prior year we used 3.2% of normalised profit before tax ($3,758 million). Following the Group restructure, the benchmark selected for the Group is total revenue (2018: normalised profit before tax). Total revenue is deemed a more appropriate benchmark as the Group incurs a large proportion of Standard Chartered PLC Group's central costs given the central functions located in the Group.

Materiality for the Parent Company financial statements as a whole was set at $110 million (2018: $100 million), determined with reference to a benchmark of total revenue of $14,704 million. In the prior year we used 2.7% of absolute profit before tax. Following the Group restructure, the benchmark selected for the Bank is total revenue (2018: absolute profit before tax). Total revenue is deemed a more appropriate benchmark as the Company incurs a large proportion of the Standard Chartered PLC Group's central costs given the central functions located in the Company.

We agreed to report to the Audit Committee any corrected or uncorrected identified misstatements affecting Group profit and loss or Group shareholders' funds exceeding $5 million (2018: $5 million) and affecting Group assets or liabilities exceeding $50 million (2018: $50 million), in addition to other identified misstatements that warrant reporting on qualitative grounds.

The Group team instructed component and hub auditors as to the significant areas to be covered, including the relevant risks and the information to be reported to the Group team. The Group team approved the component materiality levels, which ranged from $1 million to $40 million (2018: $1 million to $40 million), having regard to the size and risk profile of the components.



[1]Total revenue as defined by the accounting standards includes interest income, fee income, trading income and other income. It does not include interest expense. Total revenue is not disclosed by the Company.

Scope – general

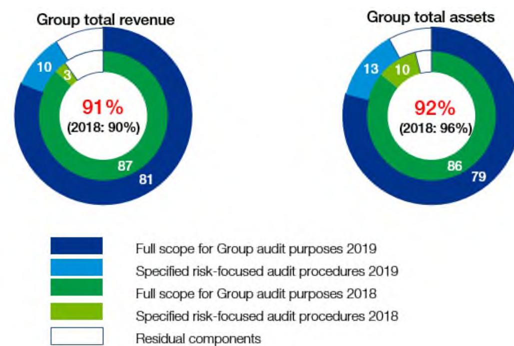
The scoping of our audit is focused on those components which are either individually significant or contain significant risks. Components subject to specified audit procedures (as shown in the table below) were not individually financially significant enough to require an audit for Group reporting purposes, but were either scoped in on the basis of the significant volume of liquid assets and transactions processed in those components or because they contained significant risks which were covered centrally.

The Group operates 9 (2018: 9) shared service centres (hubs), the outputs of which are included in the financial information of the reporting components they service and therefore they are not separate reporting components. All shared service centres where in-scope financial reporting processes are performed were subject to specified audit procedures, primarily over transaction processing and IT controls.

.	**2019**	2018
Total Group components[2]	166	176
Components subject to full scope for Group audit	14	26
Components subject to specified risk focused procedures	3	4
Hubs subject to specified audit procedures	8	8

[2] Component defined as a reporting component within the Group's consolidation system, typically these are either a branch or a subsidiary of the Group

The components within the scope of our work accounted for the percentages illustrated below



For the residual components, we performed analysis at an aggregated Group level to re-examine our assessment that there were no significant risks of material misstatement within these.

Team structure

As part of determining the scope and preparing the audit plan and strategy, the Group team led a global planning conference to discuss key audit risks and obtain input from component and hub teams. The Group team held a separate IT and hubs conference as part of the audit planning process.

Aside from the audit of the parent Company, consolidation, valuation of financial instruments, modelled expected credit losses and goodwill impairment all audit work was performed by component or hub auditors.

Further, the Group team visited 9 (2018: 12) component and hub locations: Hong Kong, India, Ireland, Malaysia, Singapore, South Korea, United States of America, United Arab Emirates and United Kingdom. (2018: China, Ghana, Hong Kong, India, Kenya, Malaysia, Nigeria, Pakistan, Singapore, South Korea, United Arab Emirates and United Kingdom). At these visits and meetings, the findings reported to the Group team and any further work required by the Group team were discussed in more detail.

Aside from the site visits, regular conference calls were also held with the component auditors.

The Group team also inspected the component team's key work papers related to the significant risks and assessed the appropriateness of conclusions and the consistency between reported findings and work performed.

4. We have nothing to report on going concern

The Directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the Company or the Group or to cease their operations, and as they have concluded that the Company's and the Group's financial position means that this approach is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over their ability to continue as a going concern for at least a year from the date of approval of the financial statements ("the going concern period").

Our responsibility is to conclude on the appropriateness of the Directors' conclusions and, had there been a material uncertainty related to going concern, to make reference to that in this audit report. However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the absence of reference to a material uncertainty in this auditor's report is not a guarantee that the Group and the Company will continue in operation.

In our evaluation of the Directors' conclusions, we considered the inherent risks to the Group's and Company's business model and analysed how those risks might affect the Group's and Company's financial resources or ability to continue operations over the going concern period. The risks that we considered most likely to adversely affect the Group's and Company's available financial resources over this period were:

- availability of funding and liquidity in the event of a market wide stress scenario; and
- impact on regulatory capital requirements in the event of an economic slowdown or recession.

As these were risks that could potentially cast significant doubt on the Group's and the Company's ability to continue as a going concern, we considered sensitivities over the level of available financial resources indicated by the Group's financial forecasts taking account of reasonably possible (but not unrealistic) adverse effects that could arise from these risks individually and collectively and evaluated the achievability of the actions the Directors consider they would take to improve the position should the risks materialise. We also considered less predictable but realistic second order impacts, as included within the Company's recent stress tests, which could result in a rapid reduction of available financial resources.

Based on this work, we are required to report to you if we have concluded that the use of the going concern basis of accounting for Group and Company is inappropriate or there is an undisclosed material uncertainty that may cast significant doubt over the use of that basis for a period of at least a year from the date of approval of the financial statements.

We have nothing to report in these respects, and we did not identify going concern as a key audit matter.

5. We have nothing to report on the strategic report and the directors' report

The directors are responsible for the strategic report and the directors' report. Our opinion on the financial statements does not cover those reports and we do not express an audit opinion thereon.

Our responsibility is to read the strategic report and the directors' report and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work:

- we have not identified material misstatements in those reports;
- in our opinion the information given in the strategic report and the directors' report for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

6. We have nothing to report on the other matters on which we are required to report by exception

Under the Companies Act 2006, we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company 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.

We have nothing to report in these respects.

7. Respective responsibilities

Directors' responsibilities

As explained more fully in their statement set out on page 44, the Directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Group and parent 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 they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

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 other irregularities (see below), or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud, other irregularities or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

Irregularities – ability to detect

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience, through discussion with the Directors and other management (as required by auditing standards), and from inspection of the Group's regulatory and legal correspondence and discussed with the Directors and other management the policies and procedures regarding compliance with laws and regulations. We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. This included communication from the Group to component audit teams of relevant laws and regulations identified at Group level.

The potential effect of these laws and regulations on the financial statements varies considerably.

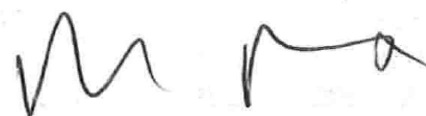
Firstly, the Group is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies legislation), distributable profits legislation and taxation legislation and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

Secondly, the Group is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation or the loss of the Group's licence to operate. We identified the following areas as those most likely to have such an effect: regulatory capital and liquidity, conduct, financial crime including money laundering, sanctions list and market abuse regulations recognising the financial and regulated nature of the Group's activities. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the Directors and other management and inspection of regulatory and legal correspondence, if any. Through these procedures, we became aware of actual or suspected non-compliance and considered the effect as part of our procedures on the related financial statement items. The identified actual or suspected non-compliance was not sufficiently significant to our audit to result in our response being identified as a key audit matter.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

8. The purpose of our audit work and to whom we owe our responsibilities

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.



Paul Furneaux (Senior Statutory Auditor)

for and on behalf of KPMG LLP, Statutory Auditor Chartered Accountants

15 Canada Square

London E14 5GL

27 February 2020

Consolidated income statement
For the year ended 31 December 2019

	Notes	2019 $million	restated 2018[1] $million
Continuing operations			
Interest income		10,831	9,814
Interest expense		(6,360)	(5,096)
Net interest income	3	4,471	4,718
Fees and commission income		2,752	2,534
Fees and commission expense		(416)	(304)
Net fee and commission income	4	2,336	2,230
Net trading income	5	2,384	1,959
Other operating income	6	187	18
Operating income		9,378	8,925
Staff costs		(5,245)	(5,265)
Premises costs		(249)	(445)
General administrative expenses		(858)	(1,673)
Depreciation and amortisation		(629)	(447)
Operating expenses	7	(6,981)	(7,830)
Operating profit before impairment losses and taxation		2,397	1,095
Credit impairment	8	(699)	(587)
Goodwill impairment	9	(23)	-
Other impairment	9	(11)	(22)
Profit from associates and joint ventures	31	55	33
Profit before taxation		1,719	519
Taxation	10	(796)	(1,058)
Profit/(loss) from continuing operations		923	(539)
(Loss)/profit from discontinued operations	40	(4,573)	1,950
(Loss)/profit for the year		(3,650)	1,411
(Loss)/profit attributable to:			
Non-controlling interests	28	50	554
Parent company shareholders		(3,700)	857
(Loss)/profit for the year		(3,650)	1,411

1 Restated for discontinued operations (Note 40)

The notes on pages 156 to 285 form an integral part of these financial statements.

Consolidated statement of comprehensive income

For the year ended 31 December 2019

	Notes	2019 $million	2018[1] $million
Continuing operations			
Profit/(loss) from continuing operations		**923**	(539)
Other comprehensive (loss)/income from continuing operations			
Items that will not be reclassified to income statement:		**(427)**	292
Own credit (losses)/gains on financial liabilities designated at fair value through profit or loss		**(330)**	299
Equity instruments at fair value through other comprehensive income		**20**	-
Actuarial (losses)/gains on retirement benefit obligations	29	**(139)**	23
Taxation relating to components of other comprehensive income	10	**22**	(30)
Items that may be reclassified subsequently to income statement:		**51**	(927)
Exchange differences on translation of foreign operations:			
Net losses taken to equity		**(475)**	(1,079)
Net gains on net investment hedges		**191**	282
Share of other comprehensive income/(loss) from associates and joint ventures		**3**	(2)
Debt instruments at fair value through other comprehensive income:			
Net valuation gains/(losses) taken to equity		**464**	(208)
Reclassified to income statement		**(145)**	37
Net impact of expected credit losses		**8**	4
Cashflow hedges:			
Net gains taken to equity		**46**	8
Reclassified to income statement	13	**9**	(5)
Taxation relating to components of other comprehensive income	10	**(50)**	36
Other comprehensive loss for the year from continuing operations		**(376)**	(635)
(Loss)/profit from discontinued operations	40	**(4,573)**	1,950
Other comprehensive income/(loss) for the year from discontinued operations		**1,345**	(176)
Total comprehensive (loss)/income for the year		**(2,681)**	600
Total comprehensive (loss)/income attributable to:			
Non-controlling interests	28	**33**	613
Parent company shareholders		**(2,714)**	(13)
Total comprehensive (loss)/income for the year		**(2,681)**	600
Total comprehensive (loss)/income attributable to:			
Continuing operations		**547**	(1,174)
Discontinued operations		**(3,228)**	1,774
Total comprehensive (loss)/income for the year		**(2,681)**	600

1 Restated for discontinued operations (Note 40)

Consolidated balance sheet

As at 31 December 2019

	Notes	Group 2019 $million	Group 2018 $million	Company 2019 $million	Company 2018 $million
Assets					
Cash and balances at central banks	12, 34	**43,926**	57,511	**34,734**	44,749
Financial assets held at fair value through profit or loss	12	**80,467**	87,010	**74,835**	71,650
Derivative financial instruments	12, 13	**48,883**	46,990	**48,524**	46,930
Loans and advances to banks	12, 14	**36,948**	61,411	**22,265**	23,732
Loans and advances to customers	12, 14	**139,181**	256,562	**76,845**	77,282
Investment securities	12	**89,966**	125,901	**71,841**	63,983
Other assets	19	**26,398**	35,369	**22,288**	21,631
Due from subsidiary undertakings and other related parties		**11,137**	1,354	**21,926**	12,025
Current tax assets	10	**532**	492	**326**	284
Prepayments and accrued income		**1,843**	2,505	**1,387**	1,322
Interests in associates and joint ventures	31	**44**	2,307	**-**	839
Investments in subsidiary undertakings		**-**	-	**8,615**	13,598
Goodwill and intangible assets	16	**3,743**	4,632	**2,117**	2,673
Property, plant and equipment	17	**1,330**	5,983	**814**	320
Deferred tax assets	10	**830**	1,047	**714**	665
Assets classified as held for sale	20	**1,190**	820	**910**	43,655
Total assets		**486,418**	689,894	**388,141**	425,338
Liabilities					
Deposits by banks	12	**24,126**	29,715	**19,232**	22,434
Customer accounts	12	**210,262**	391,013	**124,032**	120,890
Repurchase agreements and other similar secured borrowing	12, 15	**178**	1,401	**178**	434
Financial liabilities held at fair value through profit or loss	12	**58,319**	60,700	**57,415**	51,059
Derivative financial instruments	12, 13	**48,987**	47,453	**48,447**	46,668
Debt securities in issue	12, 21	**31,243**	29,188	**30,748**	23,898
Other liabilities	22	**24,479**	38,259	**18,810**	21,183
Due to parent companies, subsidiary undertakings & other related parties		**35,354**	18,000	**43,357**	40,697
Current tax liabilities	10	**449**	686	**259**	265
Accruals and deferred income		**3,616**	5,000	**1,747**	1,970
Subordinated liabilities and other borrowed funds	12, 26	**13,029**	13,245	**12,489**	12,467
Deferred tax liabilities	10	**497**	550	**435**	410
Provisions for liabilities and charges	23	**402**	1,330	**498**	1,375
Retirement benefit obligations	29	**427**	399	**383**	324
Liabilities included in disposal groups held for sale	20	**9**	124	**9**	43,649
Total liabilities		**451,377**	637,063	**358,039**	387,723
Equity					
Share capital and share premium account	27	**20,820**	28,320	**20,820**	28,320
Other reserves		**(3,813)**	(5,176)	**(1,906)**	(1,702)
Retained earnings		**11,745**	19,904	**6,188**	5,997
Total parent company shareholders' equity		**28,752**	43,048	**25,102**	32,615
Other equity instruments	27	**5,000**	5,000	**5,000**	5,000
Total equity excluding non-controlling interests		**33,752**	48,048	**30,102**	37,615
Non-controlling interests		**1,289**	4,783	**-**	-
Total equity		**35,041**	52,831	**30,102**	37,615
Total equity and liabilities		**486,418**	689,894	**388,141**	425,338

The Company has taken advantage of the exemption in section 408 of the Companies Act 2006 not to present its individual statement of comprehensive income and related notes that form a part of these financial statements. The Company profit for the year after tax is $654 million (2018: Loss of $568 million). Please see Note 40 Discontinued operations for details of the group reorganisation.

The notes on pages 156 to 285 form an integral part of these financial statements.

These financial statements were approved by the Court of Directors and authorised for issue on 27 February 2020 and signed on its behalf by:

Bill Winters, Director

Andy Halford, Director

Consolidated statement of changes in equity

For the year ended 31 December 2019

	Share capital and share premium account	Capital and merger reserves[1]	Own credit adjustment reserve	Fair value through other comprehensive income reserve – debt	Fair value through other comprehensive income reserve – equity	Cash flow hedge reserve	Translation reserve	Retained earnings	Parent company shareholders' equity	Other equity instruments	Non-controlling interests	Total
	$million	$million	$million	$million	$million	$million	$million	$million	$million	$million	$million	$million
As at 1 January 2018	28,320	40	78	(41)	51	(46)	(4,440)	19,953	43,915	5,000	4,508	53,423
Profit for the year	-	-	-	-	-	-	-	857	857	-	554	1,411
Other comprehensive income/(loss)	-	-	312	(95)	52	19	(1,106)	(52)[2]	(870)	-	59	(811)
Distributions	-	-	-	-	-	-	-	-	-	-	(341)	(341)
Share option expense, net of taxation	-	-	-	-	-	-	-	188	188	-	-	188
Dividends on ordinary shares	-	-	-	-	-	-	-	(384)	(384)	-	-	(384)
Dividend on preference shares and AT1 securities	-	-	-	-	-	-	-	(438)	(438)	-	-	(438)
Deemed distribution to parent[3]	-	-	-	-	-	-	-	(220)	(220)	-	-	(220)
Other movements	-	-	-	-	-	-	-	-	-	-	3[4]	3
As at 31 December 2018	28,320	40	390	(136)	103	(27)	(5,546)	19,904	43,048	5,000	4,783	52,831
Discontinued operations	-	-	(67)	38	(80)	(12)	1,432	(4,452)	(3,141)	-	(4,521)	(7,662)
Continuing operations	**28,320**	**40**	**323**	**(98)**	**23**	**(39)**	**(4,114)**	**15,452**	**39,907**	**5,000**	**262**	**45,169**
Profit for the year	-	-	-	-	-	-	-	873	873	-	50	923
Other comprehensive (loss)/income	-	-	(299)	305	15	33	8	(144)[2]	(82)	-	(17)	(99)
Distributions	-	-	-	-	-	-	-	-	-	-	(56)	(56)
Share option expense, net of taxation	-	-	-	-	-	-	-	131	131	-	-	131
Dividends on ordinary shares	-	-	-	-	-	-	-	(393)	(393)	-	-	(393)
Dividend on preference shares and AT1 securities	-	-	-	-	-	-	-	(441)	(441)	-	-	(441)
Dividends declared as a result of Group restructuring	-	-	-	-	-	-	-	(11,142)	(11,142)	-	-	(11,142)
Deemed distribution to parent[3]	-	-	-	-	-	-	-	(135)	(135)	-	-	(135)
Cancellation of shares	(7,500)	-	-	-	-	-	-	7,500	-	-	-	-
Non-controlling interest in Standard Chartered Bank (Singapore) Limited	-	-	-	-	-	-	-	-	-	-	1,057	1,057
Other movements	-	-	-	(5)[5]	-	(5)[5]	-	44[5]	34	-	(7)[5]	27
As at 31 December 2019	**20,820**	**40**	**24**	**202**	**38**	**(11)**	**(4,106)**	**11,745**	**28,752**	**5,000**	**1,289**	**35,041**

1 Includes capital reserve of $35 million, capital redemption reserve of $5 million

2 Comprises actuarial loss, net of taxation and share from associates and joint ventures $144 million (2018: $52 million)

3 Relates to deemed capital contribution from parent company arising from share-based payment net of taxation of $135 million (2018: $57 million deemed dividend distribution and $163 million deemed capital contribution)

4 Mainly due to additional share capital issued by Standard Chartered Bank Angola SA subscribed by its non-controlling interest without change in shareholding percentage

5 $7 million relates to release of non-controlling interest in Ori Pvt Limited and Sirat Holdings Limited due to change in ownership. $27 million relates to prior year opening reserve adjustment

Note 27 includes a description of each reserve.

The notes on pages 156 to 285 form an integral part of these financial statements.

Cash flow statement

For the year ended 31 December 2019

	Group		Company	
	2019[1]	2018	2019	2018
	$million	$million	$million	$million
Cash flows from operating activities:				
Profit before taxation	**1,719**	2,858	**1,260**	179
Adjustments for non-cash items and other adjustments included within income statement	**1,187**	1,892	**2,405**	1,346
Change in operating assets	**(50,613)**	(14,789)	**27,141**	(11,804)
Change in operating liabilities	**61,424**	38,061	**(33,457)**	26,942
Contributions to defined benefit schemes	**(101)**	(143)	**(93)**	(90)
UK and overseas taxes paid	**(1,057)**	(742)	**(697)**	(230)
Net cash from/(used in) operating activities	**12,559**	27,137	**(3,441)**	16,343
Cash flows from investing activities:				
Purchase of property, plant and equipment	**(147)**	(170)	**(74)**	(49)
Disposal of property, plant and equipment	**12**	79	**9**	2
Acquisition of investment in subsidiaries, associates and joint ventures, net of cash acquired	**-**	-	**-**	(596)
Dividends received from subsidiaries, associates and joint ventures	**3**	67	**-**	941
Disposal of subsidiaries	**-**	7	**-**	5
Purchase of investment securities	**(142,046)**	(276,388)	**(112,413)**	(119,676)
Disposal and maturity of investment securities	**128,114**	263,980	**104,913**	110,368
Net cash used in investing activities	**(14,064)**	(12,425)	**(7,565)**	(9,005)
Cash flows from financing activities:				
Premises and equipment lease liability principal payment	**(205)**	-	**(155)**	-
Gross proceeds from issue of subordinated liabilities	**1,540**	-	**1,000**	-
Interest paid on subordinated liabilities	**(1,656)**	(637)	**(1,629)**	(584)
Repayment of subordinated liabilities	**(1,024)**	(2,244)	**(1,000)**	(2,162)
Proceeds from issue of senior debts	**748**	5,214	**431**	3,765
Repayment of senior debts	**(1,821)**	(3,888)	**(1,736)**	(2,781)
Interest paid on senior debts	**(45)**	(151)	**(45)**	(128)
Investment from non-controlling interests	**1,051**	-	**-**	-
Dividends paid to non-controlling interests and preference shareholders	**(497)**	(779)	**(441)**	(438)
Dividends paid to ordinary shareholders	**(3,403)**	(384)	**(3,403)**	(384)
Net cash used in financing activities	**(5,312)**	(2,869)	**(6,978)**	(2,712)
Net (decrease)/increase in cash and cash equivalents	**(6,817)**	11,843	**(17,984)**	4,626
Cash and cash equivalents at beginning of the year	**67,174**	87,231	**59,904**	55,832
Effect of exchange rate movements on cash and cash equivalents	**(202)**	(1,579)	**(47)**	(554)
Cash and cash equivalents at end of the year	**60,155**	97,495	**41,873**	59,904
Discontinued operations:				
Net cash used in operating activities	**(29,374)**	-	**-**	-
Net cash used in investing activities	**(1,200)**	-	**-**	-
Net cash from financing activities	**347**	-	**-**	-
Net decrease in cash and cash equivalents	**(30,227)**	-	**-**	-
Cash and cash equivalents at beginning of the year	**30,321**	-	**-**	-
Effect of exchange rate movements on cash and cash equivalents	**(94)**	-	**-**	-
Cash and cash equivalents at end of the year discontinued operations	**-**	-	**-**	-

1 2019 discontinued operations are disclosed separately below continuing operations

Company statement of changes in equity

For the year ended 31 December 2019

	Share capital and share premium account $million	Capital and merger reserves[1] $million	Own credit adjustment reserve $million	Fair value through other comprehensive income reserve – debt $million	Fair value through other comprehensive income reserve – equity $million	Cash flow hedge reserve $million	Translation reserve $million	Retained earnings $million	Parent company shareholders' equity $million	Other equity instruments $million	Non-controlling interests $million	Total $million
As at 1 January 2018	28,320	40	52	(77)	52	(43)	(1,384)	7,413	34,373	5,000	-	39,373
Loss for the year	-	-	-	-	-	-	-	(568)	(568)	-	-	(568)
Other comprehensive income/(loss)	-	-	270	(112)	(5)	1	(496)	26[2]	(316)	-	-	(316)
Share option expense, net of taxation	-	-	-	-	-	-	-	139	139	-	-	139
Dividends on ordinary shares	-	-	-	-	-	-	-	(384)	(384)	-	-	(384)
Dividend on preference shares and AT1 securities	-	-	-	-	-	-	-	(438)	(438)	-	-	(438)
Deemed distribution to parent[3]	-	-	-	-	-	-	-	(191)	(191)	-	-	(191)
As at 31 December 2018	**28,320**	**40**	**322**	**(189)**	**47**	**(42)**	**(1,880)**	**5,997**	**32,615**	**5,000**	**-**	**37,615**
Profit for the year[4]	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**654**	**654**	**-**	**-**	**654**
Other comprehensive (loss)/income	**-**	**-**	**(295)**	**217**	**18**	**15**	**(159)**	**(139)[2]**	**(343)**	**-**	**-**	**(343)**
Share option expense, net of taxation	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**97**	**97**	**-**	**-**	**97**
Dividends on ordinary shares	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**(393)**	**(393)**	**-**	**-**	**(393)**
Dividend on preference shares and AT1 securities	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**(441)**	**(441)**	**-**	**-**	**(441)**
Dividends declared as a result of Group restructuring	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**(6,987)**	**(6,987)**	**-**	**-**	**(6,987)**
Deemed distribution to parent[3]	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**(100)**	**(100)**	**-**	**-**	**(100)**
Cancellation of shares	**(7,500)**	**-**	**-**	**-**	**-**	**-**	**-**	**7,500**	**-**	**-**	**-**	**-**
As at 31 December 2019	**20,820**	**40**	**27**	**28**	**65**	**(27)**	**(2,039)**	**6,188**	**25,102**	**5,000**	**-**	**30,102**

1. Includes capital reserve of $35 million, capital redemption reserve of $5 million
2. Includes actuarial loss, net of taxation $139 million (2018: Includes $20 million in actuarial gain)
3. Relates to deemed capital contribution of $100 million arising from share-based payment net of taxation (2018: $57 million deemed dividend distribution and $134 million deemed capital contribution)
4. Includes a loss on sale of $475 million as a result of the Group reorganisation, being the difference between the historical cost and the fair value of the subsidiaries. For discontinued operations see Note 40

Note 27 includes a description of each reserve.

The notes on pages 156 to 285 form an integral part of these financial statements.

Contents - Notes to the financial statements

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Notes to the financial statements

1. Accounting policies

Statement of compliance

The Group financial statements consolidate Standard Chartered Bank (the Company) and its subsidiaries (together referred to as the Group) and equity account the Group's interests in associates and jointly controlled entities.

The parent company financial statements present information about the Company as a separate entity.

Both the parent company financial statements and the Group financial statements have been prepared and approved by the directors in accordance with International Financial Reporting Standards (IFRS) and International Financial Reporting Interpretations Committee (IFRIC) interpretations as endorsed by the European Union (EU). EU-endorsed IFRS may differ from IFRS published by the International Accounting Standards Board (IASB) if a standard has not been endorsed by the EU.

The Company has taken advantage of the exemption in section 408 of the Companies Act 2006 not to present its individual statement of comprehensive income and related notes that form a part of these financial statements.

The following parts of the Risk review and Capital review form part of these financial statements:

a) From the start of Risk profile section (page 45) to the end of other principal risks in the same section (page 101) excluding:

- → Liquidity coverage ratio (LCR), (page 92)
- → Stressed coverage, (page 92)
- → Net stable funding ratio (NSFR), (page 93)
- → Liquidity pool, (page 93)
- → Interest Rate Risk in the Banking Book, (page 99)
- → Operational risk, (page 100)
- → Other principal risks, (page 101)

b) Capital review: from the start of 'Capital Requirements Directive (CRD) IV capital base' to the end of 'movement in total capital', excluding capital ratios and risk-weighted assets (RWA)

Basis of preparation

The consolidated and Company financial statements have been prepared on a going concern basis and under the historical cost convention, as modified by the revaluation of cash-settled share-based payments, fair value through other comprehensive income, and financial assets and liabilities (including derivatives) at fair value through profit or loss.

The consolidated financial statements are presented in United States dollars ($), being the presentation currency of the Group and functional currency of the Company, and all values are rounded to the nearest million dollars, except when otherwise indicated.

Significant accounting estimates and judgements

In determining the carrying amounts of certain assets and liabilities, the Group makes assumptions of the effects of uncertain future events on those assets and liabilities at the balance sheet date. The Group's estimates and assumptions are based on historical experience and expectation of future events and are reviewed periodically. Further information about key assumptions concerning the future, and other key sources of estimation uncertainty and judgement, are set out in the relevant disclosure notes for the following areas:

- → Credit impairment (Note 8)
- → Taxation (Note 10)
- → Financial instruments measured at fair value (Note 12)
- → Goodwill impairment (Note 16)
- → Provisions for liabilities and charges (Note 23)
- → Investments in subsidiary undertakings, joint ventures and associates (Note 31)

New accounting policies adopted by the Group

Net interest and trading income

The Group has changed its accounting policies for net interest income and net trading income. In previous years the Group recognised interest income and expense on financial instruments held at fair value through profit or loss in net interest income, except for fair value elected structured notes and structured deposits for which all gains and losses were recognised in net trading income. The Group now recognises all gains and losses on financial assets and liabilities held at fair value through profit or loss, including contractual interest, in net trading income. Prior period comparatives have been presented under the updated accounting policy, and quantification of the effect of the change in accounting policy on the current and prior period is given in Notes 3 and 5.

The Group believes the updated accounting policy gives users of the financial statements reliable and more relevant information because it ensures that all interest income and expense presented on the face of the income statement is measured using the effective interest method as required by IAS 1 *Presentation of Financial Statements*, it results in a natural offset in net trading income of gains and losses on fair value through profit or loss instruments and derivatives used to economically hedge valuation risks of those instruments, and it is more comparable to our peers' accounting policies. There is no change in opening retained earnings or adjustment to basic or diluted earnings per share as a result of this change in accounting policy.

Interest in suspense

Following a clarification issued by IFRIC in March 2019, if there are any recoveries on stage 3 loans, any contractual interest earned while the asset was in stage 3 is recognised in the credit impairment line. Although this differs from the Group's previous approach of recognising a residual amount of this within interest income, there is no material impact on the classification of amounts reported in the income statement in the current or prior period and accordingly no adjustments have been made to comparative information. Further, the gross asset balances for stage 3 financial instruments have been increased to reflect contractual interest due but not paid with a corresponding increase in credit impairment provisions. These changes have been disclosed within the Credit Risk section. There has been no net impact on the balance sheet or on shareholders' equity.

Comparatives

Certain comparatives have been represented in line with current year disclosures.

Details of these changes are set out in the relevant sections and notes below:

- → Credit Risk: Problem credit management and provisioning
- → Note 2 Segmental information
- → Note 3 Net interest income
- → Note 4 Net fees and commission
- → Note 5 Net trading income
- → Note 6 Other operating income
- → Note 7 Operating expenses

- Note 8 Credit impairment
- Note 9 Other impairment
- Note 10 Taxation
- Note 12 Financial instruments
- Note 16 Goodwill and intangible assets
- Note 35 Related party transactions

New accounting standards adopted by the Group

IFRS 16 Leases

On 1 January 2019, the Group adopted IFRS 16 Leases, which has been endorsed by the EU. IFRS 16 replaced IAS 17 Leases.

IFRS 16 introduced a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17 Leases. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently.

The Group has elected to adopt the modified retrospective approach and has not restated comparative information. The following practical expedients were applied on transition to IFRS 16:

- The Group did not reassess whether premises leases identified under IAS 17 were leases under IFRS 16
- The Group did not record a lease liability or right-of-use asset for leases with a remaining term of less than 12 months as at 1 January 2019
- The Group excluded initial direct costs from the measurement of right-of-use assets as at 1 January 2019

The significant judgements in the implementation were determining if a contract contained a lease, and the determination of whether the Group is reasonably certain that it will exercise extension options present in lease contracts. The significant estimates were the determination of incremental borrowing rates in the respective economic environments. The weighted average discount rate applied to lease liabilities on the transition date 1 January 2019 was 5.0 per cent.

The impact of IFRS 16 on the Group is primarily where the Group is a lessee in property lease contracts. On 1 January 2019, the Group recognised a lease liability, being the remaining lease payments, including extensions options where renewal is reasonably certain, discounted using the Group's incremental borrowing rate at the date of initial application in the economic environment of the lease. The corresponding right-of-use asset recognised is the amount of the lease liability adjusted by prepaid or accrued lease payments related to those leases. The balance sheet gross-up on 1 January 2019 as a result of recognition of the lease liability and right-of-use asset was $1,406 million, with no adjustment to retained earnings. The comparative information is not restated, i.e. it is presented, as previously reported, under IAS 17 and related interpretations.

The asset is presented in 'Property, plant and equipment' and the liability is presented in 'Other liabilities'. Further information on these balances is shown in Notes 17 and 22.

IFRIC 23 Uncertainty over Income Tax Treatments

IFRIC 23 is effective from 1 January 2019 and has been endorsed by the EU. It clarifies the accounting for uncertainties in income taxes and has not resulted in a material impact to the Group's financial statements.

Amendments to IFRS 9, IAS 39 and IFRS 7: Interest rate benchmark reform

Interest rate benchmark reform is a global initiative to replace or reform interbank offered rates (IBORs) that are used to determine interest cash flows on financial instruments such as loans to customers, debt securities and derivatives. Historically IBORs such as USD LIBOR have been determined by panels of banks with a heavy reliance on expert judgement. The objective of the reforms is to replace IBORs with alternative nearly risk-free rates (RFRs) that are based on actual market transactions. The Financial Conduct Authority (FCA) has stated that it will no longer compel panel banks to submit values for LIBORs after 31 December 2021 and it is expected that these benchmarks will cease to exist thereafter. Consequently, financial contracts referencing these benchmarks with a maturity beyond 2021 must be amended to reference the alternative RFR in the applicable currency.

There remain many uncertainties associated with the IBOR transition, including the prospective assessment of hedge accounting effectiveness because it is not known when hedged items and hedging instruments will be amended to reference alternative RFRs, or how this will change the cash flows on these instruments. Other key risks and uncertainties that require monitoring are:

- It is possible that not all hedged items and corresponding hedging instruments will move to alternative RFRs at the same time
- The liquidity of the alternative RFR term structures has historically been mixed and may continue to be so prior to transition. This raises uncertainty over the appropriate inputs and valuation technique required to assess hedge effectiveness

The IFRS amendments include reliefs which apply to all hedging relationships that are directly affected by interest rate benchmark reform by allowing entities to assume the benchmark interest rate is not altered as a result of IBOR reform. A hedging relationship is affected if the reform gives rise to uncertainties about the timing or amount of benchmark-based cash flows of the hedged item or hedging instrument, since our accounting policy requires that forecast cash flows must be highly probable and that the hedging instrument is highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk.

Following endorsement of the amendments by the EU, the Group has elected to early adopt the interest rate benchmark reform amendments for the current period. The amendments would have otherwise taken mandatory effect from 1 January 2020. This election reduces the effects of any uncertainty arising from IBOR reform on the current period's financial statements. Had it not made this election, the Group would have been required to further assess the effect of uncertainty arising from LIBOR reform on its existing hedge relationships, potentially resulting in discontinuation of hedge relationships.

The amendments are applied retrospectively to all designated hedge relationships that were either in force as of the start of the reporting period or designated subsequently. The amendments allow the Group to assume that the interest rate benchmark on which the cash flows of the hedged item and/or hedging instrument are based is not altered by IBOR reform for the following activities:

- Prospective hedge assessment

- Determining whether a cash flow or forecast transaction for a cash flow hedge is highly probable
- Determining when cumulative balances in the cash flow hedge reserve from de-designated hedges should be recycled to the income statement

For retrospective hedge assessment, the Group will not de-designate a hedge relationship if the actual result is outside the required 80-125% range, but it can be demonstrated that this is solely caused by interest rate benchmark uncertainty and the hedge passes the prospective assessment

For hedges of non-contractually specified benchmark portions of an interest rate the Group only assesses whether the designated benchmark is separately identifiable at hedge inception

The Group expects that the IASB will issue further amendments to these standards concerning the measurement and disclosure of financial instruments designated in hedge accounting relationships.

Further information on the extent to which the IFRS amendments apply to hedge accounting relationships is provided in Note 13 to these financial statements.

New accounting standards in issue but not yet effective

IFRS 17 Insurance Contracts

IFRS 17 Insurance Contracts was issued in May 2017 to replace IFRS 4 Insurance Contracts 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. The Group is assessing the likely implementation impact of adopting the standards on its financial statements.

Amendments to References to the Conceptual Framework in IFRS Standards

These amendments are effective 1 January 2020 and include limited revisions of definitions of an asset and a liability, as well as new guidance on measurement and derecognition, presentation and disclosure. The concept of prudence has been reintroduced with the statement that prudence supports neutrality.

Amendments to IFRS 3 Business Combinations

These amendments are effective 1 January 2020 on a prospective basis and assist entities in determining whether a transaction should be accounted for as a business combination or asset acquisition.

Amendments to IAS 1 and IAS 8: Definition of Material

Amendments to IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors (the amendments) to align the definition of 'material' across the standards and to clarify certain aspects of the definition.

None of the amendments above are expected to result in a material impact on the Group's financial statements.

Going concern

These financial statements were approved by the Court on 27 February 2020. The directors made an assessment of the Group's ability to continue as a going concern and confirm they are satisfied that the Group has adequate resources to continue in business for a period of at least 12 months from the date of approval of these financial statements. For this reason, the Group continues to adopt the going concern basis of accounting for preparing the financial statements.

2. Segmental information

The Group's segmental reporting is in accordance with IFRS 8 Operating Segments and is reported consistently with the internal performance framework and as presented to the Group's Management Team. The four client segments are Corporate & Institutional Banking, Retail Banking, Commercial Banking and Private Banking. The three geographic regions are ASEAN & South Asia, Africa & Middle East, and Europe & Americas. Activities not directly related to a client segment and/or geographic region are included in Central & other items. These mainly include Corporate Centre costs, treasury markets, treasury activities, certain strategic investments and the UK bank levy.

The following should also be noted:

- Transactions and funding between the segments are carried out on an arm's-length basis
- Corporate Centre costs represent stewardship and central management services roles and activities that are not directly attributable to business or country operations
- Treasury markets, joint ventures and associate investments are managed in the regions and are included within the applicable region. However, they are not managed directly by a client segment and are therefore included in the Central & other items segment
- In addition to treasury activities, Corporate Centre costs and other Group related functions, Central & other items for regions includes globally run businesses or activities that are managed by the client segments but not directly by geographic management. These include Principal Finance and Portfolio Management
- The Group allocated central costs (excluding Corporate Centre costs) relating to client segments and geographic regions using appropriate business drivers (such as in proportion to the direct cost base of each segment before allocation of indirect costs) and these are reported within operating expenses
- The tables below for the current year have been prepared on a continuing operations basis.

Basis of preparation

The analysis reflects how the client segments and geographic regions are managed internally. This is described as the Management View (on an underlying basis) and is principally the location from which a client relationship is managed, which may differ from where it is financially booked and may be shared between businesses and/or regions. In certain instances this approach is not appropriate and a Financial View is disclosed, that is, the location in which the transaction or balance was booked. Typically the Financial View is used in areas such as the Market and Liquidity Risk reviews where actual booking location is more important for an assessment. Segmental information is therefore on a Management View unless otherwise stated.

Restructuring items excluded from underlying results

The provision for regulatory matters of $226 million (2018: $900 million) primarily relates to the agreement to pay monetary penalties to the US Authorities and the FCA following the resolution of investigations concerning historical violations of US sanction laws and regulations and the effectiveness and governance of historical financial crime controls, described further in Note 25.

The Group incurred net restructuring charges of $129 million in 2019 primarily due to the planned initiatives to reduce ongoing costs. Other normalised items ($32 million) includes ($23 million) goodwill impairment and ($57 million) relating to the PLC debt buy back partly offset by $48 million share of profits from the joint venture investment in PT Bank Permata:

Profit before taxation (PBT)

	2019						
	Underlying $million	Provision for regulatory matters $million	Restructuring $million	Losses arising on repurchase of senior and subordinated liabilities $million	Goodwill impairment $million	Share of profits of PT Bank Permata Tbk joint venture $million	Statutory $million
Operating income	9,434	-	1	(57)	-	-	9,378
Operating expenses	(6,627)	(226)	(128)	-	-	-	(6,981)
Operating profit/(loss) before impairment losses and taxation	2,807	(226)	(127)	(57)	-	-	2,397
Credit impairment	(697)	-	(2)	-	-	-	(699)
Other impairment	(11)	-	-	-	(23)	-	(34)
Profit from associates and joint ventures	7	-	-	-	-	48	55
Profit/(loss) before taxation	**2,106**	**(226)**	**(129)**	**(57)**	**(23)**	**48**	**1,719**

	2018						
	Underlying $million	Provision for regulatory matters $million	Restructuring $million	Gains arising on repurchase of senior and subordinated liabilities $million	Goodwill impairment $million	Share of profits of PT Bank Permata Tbk joint venture $million	Statutory $million
Operating income	9,103	-	(184)	6	-	-	8,925
Operating expenses	(6,761)	(900)	(169)	-	-	-	(7,830)
Operating profit/(loss) before impairment losses and taxation	2,342	(900)	(353)	6	-	-	1,095
Credit impairment	(659)	-	72	-	-	-	(587)
Other impairment	(21)	-	(1)	-	-	-	(22)
Profit from associates and joint ventures	33	-	-	-	-	-	33
Profit/(loss) before taxation	1,695	(900)	(282)	6	-	-	519

Notes to the financial statements continued

Underlying performance by client segment

	2019					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Operating income	4,995	2,334	899	366	840	9,434
External	5,173	2,038	1,082	226	915	9,434
Inter-segment	(178)	296	(183)	140	(75)	-
Operating expenses	(3,232)	(1,799)	(547)	(325)	(724)	(6,627)
Operating profit before impairment losses and taxation	1,763	535	352	41	116	2,807
Credit impairment	(455)	(175)	(98)	34	(3)	(697)
Other impairment	(5)	1	-	-	(7)	(11)
Profit from associates and joint ventures	-	-	-	-	7	7
Underlying profit before taxation	1,303	361	254	75	113	2,106
Provision for regulatory matters	-	-	-	-	(226)	(226)
Restructuring	(59)	(17)	(2)	(10)	(41)	(129)
Losses arising on repurchase of senior and subordinated liabilities	-	-	-	-	(57)	(57)
Goodwill impairment	-	-	-	-	(23)	(23)
Share of profits of PT Bank Permata Tbk joint venture	-	-	-	-	48	48
Statutory profit/(loss) before taxation	1,244	344	252	65	(186)	1,719
Total assets	256,338	34,550	17,048	9,179	169,303	486,418
Total liabilities	304,699	46,837	15,213	11,814	72,814	451,377

	2018					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Operating income	4,616	2,326	855	355	951	9,103
External	4,869	2,212	1,080	207	735	9,103
Inter-segment	(253)	114	(225)	148	216	-
Operating expenses	(3,204)	(1,819)	(546)	(345)	(847)	(6,761)
Operating profit before impairment losses and taxation	1,412	507	309	10	104	2,342
Credit impairment	(262)	(183)	(223)	-	9	(659)
Other impairment	(28)	-	-	-	7	(21)
Profit from associates and joint ventures	-	-	-	-	33	33
Underlying profit before taxation	1,122	324	86	10	153	1,695
Provision for regulatory matters	(50)	-	-	-	(850)	(900)
Restructuring	(183)	(49)	(6)	(25)	(19)	(282)
Gains arising on repurchase senior and of subordinated liabilities	3	-	-	-	3	6
Statutory profit/(loss) before taxation	892	275	80	(15)	(713)	519
Total assets	306,647	103,780	31,379	13,673	234,415	689,894
Total liabilities	367,587	140,328	37,260	19,733	72,155	637,063

Underlying performance by region

	2019				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Operating income	4,179	2,551	1,829	875	9,434
Operating expenses	(2,669)	(1,746)	(1,435)	(777)	(6,627)
Operating profit before impairment losses and taxation	1,510	805	394	98	2,807
Credit impairment	(504)	(132)	(101)	40	(697)
Other impairment	(1)	1	-	(11)	(11)
Profit from associates and joint ventures	-	-	-	7	7
Underlying profit before taxation	1,005	674	293	134	2,106
Provision for regulatory matters	-	-	-	(226)	(226)
Restructuring	(33)	(18)	(32)	(46)	(129)
Losses arising on repurchase of senior and subordinated liabilities	-	-	-	(57)	(57)
Goodwill impairment	-	-	-	(23)	(23)
Share of profits of PT Bank Permata Tbk joint venture	48	-	-	-	48
Statutory profit/(loss) before taxation	1,020	656	261	(218)	1,719
Total assets	149,839	59,801	230,149	46,629	486,418
Total liabilities	126,214	36,141	224,298	64,724	451,377

1 As a result of the transfer of the Greater China and North Asia (GCNA) subsidiaries to PLC Group, the GCNA region has been included in Central & other items region

	2018				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items[1] $million	Total $million
Operating income	3,963	2,591	1,693	856	9,103
Operating expenses	(2,715)	(1,809)	(1,442)	(795)	(6,761)
Operating profit before impairment losses and taxation	1,248	782	251	61	2,342
Credit impairment	(322)	(252)	(82)	(3)	(659)
Other impairment	5	-	17	(43)	(21)
Profit from associates and joint ventures	26	-	-	7	33
Underlying profit before taxation	957	530	186	22	1,695
Provision for regulatory matters	-	-	(50)	(850)	(900)
Restructuring	105	(100)	(11)	(276)	(282)
Gains arising on repurchase of senior and subordinated liabilities	-	-	3	3	6
Statutory profit/(loss) before taxation	1,062	430	128	(1,101)	519
Total assets	146,766	57,744	200,584	284,800	689,894
Total liabilities	127,478	36,733	196,784	276,068	637,063

1 As a result of the transfer of the Greater China and North Asia (GCNA) subsidiaries to PLC Group, the GCNA region has been included in Central & other items region

Additional segmental information (statutory)

	2019					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Net interest income	**1,722**	**1,444**	**549**	**189**	**567**	**4,471**
Net fees and commission income	**1,244**	**785**	**193**	**140**	**(26)**	**2,336**
Net trading and other income	**2,029**	**105**	**158**	**37**	**242**	**2,571**
Operating income	**4,995**	**2,334**	**900**	**366**	**783**	**9,378**

	2018 restated[1]					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Net interest income	1,576	1,402	503	202	1,035	4,718
Net fees and commission income	1,155	814	187	128	(54)	2,230
Net trading and other income	1,695	110	164	27	(19)	1,977
Operating income	4,426	2,326	854	357	962	8,925

1 Refer to Note 1 Accounting policies

	2019				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Net interest income	**2,080**	**1,458**	**169**	**764**	**4,471**
Net fees and commission income	**1,123**	**611**	**517**	**85**	**2,336**
Net trading and other income	**974**	**482**	**1,143**	**(28)**	**2,571**
Operating income	**4,177**	**2,551**	**1,829**	**821**	**9,378**

	2018 restated[1]				
	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Net interest income	2,057	1,497	345	819	4,718
Net fees and commission income	1,048	644	470	68	2,230
Net trading and other income	879	451	884	(237)	1,977
Operating income	3,984	2,592	1,699	650	8,925

1 Refer to Note 1 Accounting policies

	2019				
	Singapore $million	India $million	UAE $million	UK $million	US $million
Net interest income	**716**	**564**	**365**	**(192)**	**256**
Net fees and commission income	**559**	**235**	**140**	**75**	**359**
Net trading and other income	**337**	**233**	**109**	**978**	**150**
Operating income	**1,612**	**1,032**	**614**	**861**	**765**

	2018 restated[1]				
	Singapore $million	India $million	UAE $million	UK $million	US $million
Net interest income	711	544	381	(48)	240
Net fees and commission income	507	209	167	47	345
Net trading and other income	355	183	92	851	82
Operating income	1,573	936	640	850	667

1 Refer to Note 1 Accounting policies

3. Net interest income

Accounting policy

Interest income for financial assets held at either fair value through other comprehensive income or amortised cost, and interest expense on all financial liabilities held at amortised cost is recognised in profit or loss using the effective interest method.

The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument (for example, prepayment options) but does not consider future credit losses. The calculation includes all fees paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts. Where the estimates of cash flows have been revised, the carrying amount of the financial asset or liability is adjusted to reflect the actual and revised cash flows, discounted at the instruments' original effective interest rate. The adjustment is recognised as interest income or expense in the period in which the revision is made.

Interest income for financial assets that are either held at fair value through other comprehensive income or amortised cost that have become credit-impaired subsequent to initial recognition (stage 3) and have had amounts written off, is recognised using the credit adjusted effective interest rate. This rate is calculated in the same manner as the effective interest rate except that expected credit losses are included in the expected cash flows. Interest income is therefore recognised on the amortised cost of the financial asset including expected credit losses. Should the credit risk on a stage 3 financial asset improve such that the financial asset is no longer considered credit-impaired, interest income recognition reverts to a computation based on the rehabilitated gross carrying value of the financial asset.

	2019 $million	restated 2018[1] $million
Balances at central banks	302	328
Loans and advances to banks	1,184	1,074
Loans and advances to customers	6,677	6,195
Listed debt securities	1,486	1,095
Unlisted debt securities	580	543
Other eligible bills	530	500
Accrued on impaired assets (discount unwind)	72	79
Interest income	**10,831**	9,814
Of which: financial instruments held at fair value through other comprehensive income	2,001	2,022
Deposits by banks	636	476
Customer accounts	4,771	3,651
Debt securities in issue	493	379
Subordinated liabilities and other borrowed funds	410	590
Interest expense on IFRS 16 lease liabilities	50	-
Interest expense	**6,360**	5,096
Net interest income	**4,471**	4,718

1 In 2018 the Group reported net interest income of $5,580 million, consisting of interest income of $11,718 million and interest expense of $6,138 million. The difference between this and restated 2018 net interest income of $4,718 million is $862 million of net contractual interest receivable on financial instruments measured at fair value through profit or loss being reclassified to net trading income and includes restatement for discontinued operations (Note 40)

Had the financial statements been prepared under the previous year's accounting policy, under which contractual interest on financial instruments measured at fair value through profit or loss (except for fair value elected structured notes and structured deposits) was recorded in net interest income, interest income in the current year would have been $13,572 million and interest expense would have been $7,693 million.

4. Net fees and commission

Accounting policy

Fees and commissions charged for services provided by the Group are recognised as or when the service is completed, or significant act performed.

Loan syndication fees are recognised as revenue when the syndication has been completed and the Group retained no part of the loan package for itself or retained a part at the same effective interest rate as for the other participants.

The Group can act as trustee or in other fiduciary capacities that result in the holding or placing of assets on behalf of individuals, trusts, retirement benefit plans and other institutions. The assets and income arising thereon are excluded from these financial statements, as they are not assets and income of the Group.

The determination of the services performed for the customer, the transaction price, and when the services are completed depends on the nature of the product with the customer. The main considerations on income recognition by product are as follows:

Transaction Banking

The Group recognises fee income associated with transactional trade, cash management and custody activities at the point in time the service is provided. The Group recognises income associated with trade contingent risk exposures (such as letters of credit and guarantees) and periodic custody activities over the period in which the service is provided.

Payment of fees is usually received at the same time the service is provided. In some cases, letters of credit and guarantees issued by the Group have annual upfront premiums, which are amortised on a straight-line basis to fee income over the year.

Financial Markets and Corporate Finance

The Group recognises fee income at the point in time the service is provided. Fee income is recognised for a significant non-lending service when the transaction has been completed and the terms of the contract with the customer entitle the Group to the fee. Fees are usually received shortly after the service is provided.

Syndication fees are recognised when the syndication is complete. Fees are generally received before completion of the syndication, or within 12 months of the transaction date.

Wealth Management

Upfront consideration on bancassurance agreements is amortised straight-line over the contractual term. Commissions for bancassurance activities are recorded as they are earned through sales of third-party insurance products to customers. These commissions are received within a short time frame of the commission being earned. Target-linked fees are accrued based on a percentage of the target achieved, provided it is assessed as highly probable that the target will be met. Cash payment is received at a contractually specified date after achievement of a target has been confirmed

Upfront and trailing commissions for managed investment placements are recorded as they are confirmed. Income from these activities is relatively even throughout the period, and cash is usually received within a short time frame after the commission is earned.

Retail Products

The Group recognises most income at the point in time the Group is entitled to the fee, since most services are provided at the time of the customer's request.

Credit card annual fees are recognised at the time the fee is received since, in most of our retail markets, there are contractual circumstances under which fees are waived, so income recognition is constrained until the uncertainties associated with the annual fee are resolved. The Group defers the fair value of reward points on its credit card reward programmes, and recognises income and costs associated with fulfilling the reward at the time of redemption.

	2019 $million	restated 2018[1] $million
Fees and commissions income	2,752	2,534
Fees and commissions expense	(416)	(304)
Net fees and commission	2,336	2,230

1 Restated for discontinued operations (Note 40)

Total fee income arising from financial instruments that are not fair valued through profit or loss is $1,203 million (31 December 2018: $1,182 million) and arising from trust and other fiduciary activities is $63 million (31 December 2018: $49 million).

Total fee expense arising from financial instruments that are not fair valued through profit or loss is $98 million (31 December 2018: $97 million) and arising from trust and other fiduciary activities is $3 million (31 December 2018: $3 million).

	2019					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Transaction Banking	895	5	145	-	-	1,045
Trade	369	5	114	-	-	488
Cash Management	414	-	31	-	-	445
Securities Services	112	-	-	-	-	112
Financial Markets	126	-	17	-	-	143
Corporate Finance	155	-	20	2	-	177
Lending and Portfolio Management	75	-	11	-	-	86
Principal Finance	(7)	-	-	-	-	(7)
Wealth Management	-	543	-	134	-	677
Retail Products	-	238	-	4	-	242
Treasury	-	-	-	-	(2)	(2)
Others	-	(1)	-	-	(24)	(25)
Net fees and commission	1,244	785	193	140	(26)	2,336

	2018 restated					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Transaction Banking	902	7	147	-	-	1,056
Trade	385	7	115	-	-	507
Cash Management	407	-	32	-	-	439
Securities Services	110	-	-	-	-	110
Financial Markets	56	-	15	-	-	71
Corporate Finance	167	-	15	-	-	182
Lending and Portfolio Management	51	-	9	-	-	60
Principal Finance	(21)	-	-	-	-	(21)
Wealth Management	-	543	1	126	-	670
Retail Products	-	267	-	2	-	269
Treasury	-	-	-	-	(10)	(10)
Others	-	(3)	-	-	(44)	(47)
Net fees and commission	1,155	814	187	128	(54)	2,230

Upfront bancassurance consideration amounts are amortised on a straight-line basis over the contractual period to which the consideration relates. Deferred income on the balance sheet in respect of these activities is $802 million (31 December 2018: $886 million). The income will be earned evenly over the next 9.5 years (31 December 2018: 10.5 years).

5. Net trading income

Accounting policy

Gains and losses arising from changes in the fair value of financial instruments held at fair value through profit or loss are recorded in net trading income in the period in which they arise. This includes contractual interest receivable or payable.

Income is recognised from the sale and purchase of trading positions, margins on market making and customer business and fair value changes.

	2019 $million	restated 2018[1] $million
Net trading income	**2,384**	1,959
Significant items within net trading income include:		
Gains on instruments held for trading	**2,448**	1,958
Gains on financial assets mandatorily at fair value through profit or loss	**1,464**	774
Gains on financial assets designated at fair value through profit or loss	**27**	23
Losses on financial liabilities designated at fair value through profit or loss	**(1,463)**	(702)

1 In 2018 the Group reported net trading income of $1,814 million. The difference between this and restated 2018 net trading income of $145 million is $862 million of net contractual interest receivable on financial instruments measured at fair value through profit or loss being reclassified to net trading income and $717 million moved from net trading income related to discontinued operations (Note 40)

Had the financial statements been prepared under the previous year's accounting policy, under which contractual interest on financial instruments measured at fair value through profit or loss (except for fair value elected structured notes and structured deposits) was recorded in net interest income, net trading income in the current year would have been $975 million.

6. Other operating income

Accounting policy

Operating lease income is recognised on a straight-line basis over the period of the lease unless another systematic basis is more appropriate.

Dividends on equity instruments are recognised when the Group's right to receive payment is established.

On disposal of fair value through other comprehensive income debt instruments, the cumulative gain or loss recognised in other comprehensive income is recycled to the profit or loss in other operating income/expense.

When the Group loses control of the subsidiary or disposal group, the difference between the consideration received and the carrying amount of the subsidiary or disposal group is recognised as a gain or loss on sale of the business.

	2019 $million	restated 2018[1] $million
Other operating income includes:		
Rental income from operating lease assets	**2**	2
Net gains/(losses) on disposal of fair value through other comprehensive income debt instruments	**144**	(37)
Gains less losses on amortised cost financial assets	**(37)**	-
Net gain on sale of businesses	**-**	9
Dividend income	**47**	12
Other	**31**	32
	187	18

1 Restated for discontinued operations (Note 40)

7. Operating expenses

Accounting policy

Short-term employee benefits: Salaries and social security expenses are recognised over the period in which the employees provide the service. Variable compensation is included within share-based payments costs and wages and salaries. Further details are disclosed in Note 38, remuneration of Directors (page 268).

Pension costs: Contributions to defined contribution pension schemes are recognised in profit or loss when payable. For defined benefit plans, net interest expense, service costs and expenses are recognised in the income statement. Further details are provided in Note 29.

Share-based compensation: The Group operates equity-settled and cash-settled share-based payment compensation plans. The fair value of the employee services (measured by the fair value of the options granted) received in exchange for the grant of the options is recognised as an expense. Further details are provided in Note 30.

	2019 $million	restated 2018[1] $million
Staff costs:		
Wages and salaries	**4,059**	3,991
Social security costs	**128**	120
Other pension costs (Note 29)	**264**	259
Share-based payment costs	**137**	140
Other staff costs	**657**	755
	5,245	5,265

1 Restated for discontinued operations (Note 40)

Other staff costs include redundancy expenses of $116 million (31 December 2018: $153 million). Further costs in this category include training, travel costs and other staff related costs.

The following table summarises the number of employees within the Group and Company:

Group

	2019			2018[1]		
	Business	**Support services**	**Total**	Business	Support services	Total
At 31 December	**36,095**	**37,109**	**73,204**	47,374	37,983	85,357
Average for the year	**36,470**	**36,293**	**72,763**	48,788	37,436	86,224

1 Prior year headcount has been re-presented due to a change in management view of segments

Company

	2019			2018[1]		
	Business	**Support services**	**Total**	Business	Support services	Total
At 31 December	**13,390**	**8,288**	**21,678**	16,520	9,477	25,997
Average for the year	**13,630**	**8,578**	**22,208**	17,334	9,567	26,901

1 Prior year headcount has been re-presented due to a change in management view of segments

Details of directors' pay and benefits and interests in shares are disclosed in Note 38 Remuneration of Directors' (pages 268).

Transactions with directors, officers and other related parties are disclosed in Note 35.

	2019 $million	restated 2018[1] $million
Premises and equipment expenses:		
Rental of premises[2]	20	196
Other premises and equipment costs	219	236
Rental of computers and equipment	10	13
	249	445
General administrative expenses:		
UK bank levy	347	324
Provision for regulatory matters	226	900
Other general administrative expenses	285	449
	858	1,673
Depreciation and amortisation:		
Property, plant and equipment:		
Premises[2]	176	44
Equipment	77	327
Operating lease assets	-	(258)
	253	113
Intangibles:		
Software	367	324
Acquired on business combinations	9	10
	629	447
Total operating expenses	6,981	7,830

1 Restated for discontinued operations (Note 40)

2 As a result of IFRS 16, rental expenses of premises has decreased and has been replaced by depreciation on premises (being the right-of-use asset) and interest expenses (on the lease liability)

The UK bank levy is applied on the chargeable equities and liabilities on the Group's consolidated balance sheet. Key exclusions from chargeable equities and liabilities include Tier 1 capital, insured or guaranteed retail deposits, repos secured on certain sovereign debt and liabilities subject to netting. The rate of the levy for 2019 is 0.15 per cent for chargeable short-term liabilities, with a lower rate of 0.075 per cent generally applied to chargeable equity and long-term liabilities (i.e. liabilities with a remaining maturity greater than one year). The rates will reduce in 2020 and from 1 January 2021 they will be 0.10 per cent for short-term liabilities and 0.05 per cent for long-term liabilities. In addition, the scope of the bank levy will be restricted to the balance sheet of UK operations only from that date.

8. Credit impairment

Accounting policy

Significant accounting estimates and judgements

The Group's expected credit loss (ECL) calculations are outputs of complex models with a number of underlying assumptions. The significant judgements in determining expected credit loss include:

→ The Group's criteria for assessing if there has been a significant increase in Credit risk; and

→ Development of expected credit loss models, including the choice of inputs relating to macroeconomic variables

The calculation of credit impairment provisions also involves expert credit judgement to be applied by the Credit risk management team based upon counterparty information they receive from various sources, including relationship managers and on external market information. Details on the approach for determining expected credit loss can be found in the Credit risk section, under IFRS 9 Methodology (page 81).

Estimates of forecasts of key macroeconomic variables underlying the expected credit loss calculation can be found within the Risk review, Key assumptions and judgements in determining expected credit loss (page 82).

Expected credit losses

Expected credit losses are determined for all financial debt instruments that are classified at amortised cost or fair value through other comprehensive income, undrawn commitments and financial guarantees.

An expected credit loss represents the present value of expected cash shortfalls over the residual term of a financial asset, undrawn commitment or financial guarantee.

A cash shortfall is the difference between the cash flows that are due in accordance with the contractual terms of the instrument and the cash flows that the Group expects to receive over the contractual life of the instrument.

Measurement

Expected credit losses are computed as unbiased, probability-weighted amounts which are determined by evaluating a range of reasonably possible outcomes, the time value of money, and considering all reasonable and supportable information, including that which is forward-looking.

For material portfolios, the estimate of expected cash shortfalls is determined by multiplying the probability of default (PD) with the loss given default (LGD) with the expected exposure at the time of default (EAD). There may be multiple default events over the lifetime of an instrument. Further details on the components of PD, LGD and EAD are disclosed in the Credit risk section. For less material Retail Banking loan portfolios, the Group has adopted simplified approaches based on historical roll rates or loss rates.

Forward-looking economic assumptions are incorporated into the PD, LGD and EAD where relevant and where they influence Credit risk, such as GDP growth rates, interest rates, house price indices and commodity prices, among others. These assumptions are incorporated using the Group's most likely forecast for a range of macroeconomic assumptions. These forecasts are determined using all reasonable and supportable information, which includes both internally developed forecasts and those available externally, and are consistent with those used for budgeting, forecasting and capital planning.

To account for the potential non-linearity in credit losses, multiple forward-looking scenarios are incorporated into the range of reasonably possible outcomes for all material portfolios. For example, where there is a greater risk of downside credit losses than upside gains, multiple forward-looking economic scenarios are incorporated into the range of reasonably possible outcomes, both in respect of determining the PD (and where relevant, the LGD and EAD) and in determining the overall expected credit loss amounts. These scenarios are determined using a Monte Carlo approach, centred around the Group's most likely forecast of macroeconomic assumptions.

The period over which cash shortfalls are determined is generally limited to the maximum contractual period for which the Group is exposed to Credit risk. However, for certain revolving credit facilities, which include credit cards or overdrafts, the Group's exposure to Credit risk is not limited to the contractual period. For these instruments, the Group estimates an appropriate life based on the period that the Group is exposed to Credit risk, which includes the effect of Credit risk management actions such as the withdrawal of undrawn facilities.

For credit-impaired financial instruments, the estimate of cash shortfalls may require the use of expert credit judgement. As a practical expedient, the Group may also measure credit impairment on the basis of an instrument's fair value using an observable market price.

The estimate of expected cash shortfalls on a collateralised financial instrument reflects the amount and timing of cash flows that are expected from foreclosure on the collateral less the costs of obtaining and selling the collateral, regardless of whether foreclosure is deemed probable.

Cash flows from unfunded credit enhancements held are included within the measurement of expected credit losses if they are part of, or integral to, the contractual terms of the instrument (this includes financial guarantees, unfunded risk participations and other non-derivative credit insurance). Although non-integral credit enhancements do not impact the measurement of expected credit losses, a reimbursement asset is recognised to the extent of the expected credit losses recorded.

Cash shortfalls are discounted using the effective interest rate (or credit-adjusted effective interest rate for purchased or originated credit-impaired instruments (POCI)) on the financial instrument as calculated at initial recognition or if the instrument has a variable interest rate, the current effective interest rate determined under the contract.

Instruments	Location of expected credit loss provisions
Financial assets held at amortised cost	Loss provisions: netted against gross carrying value[1]
Financial assets held FVOCI - Debt instruments	Other comprehensive income (FVOCI expected credit loss reserve)[2]
Loan commitments	Provisions for liabilities and charges[3]
Financial guarantees	Provisions for liabilities and charges[3]

1 Purchased or originated credit-impaired assets do not attract an expected credit loss provision on initial recognition. An expected credit loss provision will be recognised only if there is an increase in expected credit losses from that considered at initial recognition

2 Debt and treasury securities classified as fair value through other comprehensive income (FVOCI) are held at fair value on the face of the balance sheet. The expected credit loss attributed to these instruments is held as a separate reserve within other comprehensive income (OCI) and is recycled to the profit and loss account along with any fair value measurement gains or losses held within FVOCI when the applicable instruments are derecognised

3 Expected credit loss on loan commitments and financial guarantees is recognised as a liability provision. Where a financial instrument includes both a loan (i.e. financial asset component) and an undrawn commitment (i.e. loan commitment component), and it is not possible to separately identify the expected credit loss on these components, expected credit loss amounts on the loan commitment are recognised together with expected credit loss amounts on the financial asset. To the extent the combined expected credit loss exceeds the gross carrying amount of the financial asset, the expected credit loss is recognised as a liability provision

Recognition

12 months expected credit losses (stage 1)

Expected credit losses are recognised at the time of initial recognition of a financial instrument and represent the lifetime cash shortfalls arising from possible default events up to 12 months into the future from the balance sheet date. Expected credit losses continue to be determined on this basis until there is either a significant increase in the Credit risk of an instrument or the instrument becomes credit-impaired. If an instrument is no longer considered to exhibit a significant increase in Credit risk, expected credit losses will revert to being determined on a 12-month basis.

Significant increase in Credit risk (stage 2)

If a financial asset experiences a significant increase in Credit risk (SICR) since initial recognition, an expected credit loss provision is recognised for default events that may occur over the lifetime of the asset.

Significant increase in Credit risk is assessed by comparing the risk of default of an exposure at the reporting date to the risk of default at origination (after taking into account the passage of time). Significant does not mean statistically significant nor is it assessed in the context of changes in expected credit loss. Whether a change in the risk of default is significant or not is assessed using a number of quantitative and qualitative factors, the weight of which depends on the type of product and counterparty. Financial assets that are 30 or more days past due and not credit-impaired will always be considered to have experienced a significant increase in Credit risk. For less material portfolios where a loss rate or roll rate approach is applied to compute expected credit loss, significant increase in Credit risk is primarily based on 30 days past due.

Quantitative factors include an assessment of whether there has been significant increase in the forward-looking PD since origination. A forward-looking PD is one that is adjusted for future economic conditions to the extent that these are correlated to changes in Credit risk. We compare the residual lifetime PD at the balance sheet date to the residual lifetime PD that was expected at the time of origination for the same point in the term structure and determine whether both the absolute and relative change between the two exceeds predetermined thresholds. To the extent that the differences between the measures of default outlined exceed the defined thresholds, the instrument is considered to have experienced a significant increase in Credit risk.

Qualitative factors assessed include those linked to current Credit risk management processes, such as lending placed on non-purely precautionary early alert (and subject to closer monitoring).

A non-purely precautionary early alert account is one which exhibits risk or potential weaknesses of a material nature requiring closer monitoring, supervision, or attention by management. Weaknesses in such a borrower's account, if left uncorrected, could result in deterioration of repayment prospects and the likelihood of being downgraded. Indicators could include a rapid erosion of position within the industry, concerns over management's ability to manage operations, weak/deteriorating operating results, liquidity strain and overdue balances among other factors.

Credit-impaired (or defaulted) exposures (stage 3)

Financial assets that are credit-impaired (or in default) represent those that are at least 90 days past due in respect of principal and/or interest. Financial assets are also considered to be credit-impaired where the obligors are unlikely to pay on the occurrence of one or more observable events that have a detrimental impact on the estimated future cash flows of the financial asset. It may not be possible to identify a single discrete event but instead the combined effect of several events may cause financial assets to become credit-impaired.

Evidence that a financial asset is credit-impaired includes observable data about the following events:

- → Significant financial difficulty of the issuer or borrower
- → Breach of contract such as default or a past due event
- → For economic or contractual reasons relating to the borrower's financial difficulty, the lenders of the borrower have granted the borrower concession/s that lenders would not otherwise consider. This would include forbearance actions (pages 67 to 69)
- → Pending or actual bankruptcy or other financial reorganisation to avoid or delay discharge of the borrower's obligation/s
- → The disappearance of an active market for the applicable financial asset due to financial difficulties of the borrower
- → Purchase or origination of a financial asset at a deep discount that reflects incurred credit losses

Irrevocable lending commitments to a credit-impaired obligor that have not yet been drawn down are also included within the stage 3 credit impairment provision to the extent that the commitment cannot be withdrawn. Loss provisions against credit-impaired financial assets are determined based on an assessment of the recoverable cash flows under a range of scenarios, including the realisation of any collateral held where appropriate. The loss provisions held represent the difference between the present value of the expected cash shortfalls, discounted at the instrument's original effective interest rate, and the gross carrying value (including contractual interest due but not paid) of the instrument prior to any credit impairment. The Group's definition of default is aligned with the regulatory definition of default as set out in European Capital Requirements Regulation (CRR178) and related guidelines.

Expert credit judgement

For Corporate & Institutional, Commercial and Private Banking, borrowers are graded by Credit risk management on a credit grading (CG) scale from CG1 to CG14. Once a borrower starts to exhibit credit deterioration, it will move along the credit grading scale in the performing book and, when it is classified as CG12, the credit assessment and oversight of the loan will normally be performed by Group Special Assets Management (GSAM).

Borrowers graded CG12 exhibit well-defined weaknesses in areas such as management and/or performance but there is no current expectation of a loss of principal or interest. Where the impairment assessment indicates that there will be a loss of principal on a loan, the borrower is graded a CG14 while borrowers of other credit-impaired loans are graded CG13. Instruments graded CG13 or CG14 are regarded stage 3.

For individually significant financial assets within stage 3, GSAM will consider all judgements that have an impact on the expected future cash flows of the asset. These include: the business prospects, industry and geopolitical climate of the customer, quality of realisable value of collateral, the Group's legal position relative to other claimants and any renegotiation/ forbearance/ modification options. The future cash flow calculation involves significant judgements and estimates. As new information becomes available and further negotiations/ forbearance measures are taken the estimates of the future cash flows will be revised, and will have an impact on the future cash flow analysis.

For financial assets which are not individually significant, such as the Retail Banking portfolio or small business loans, which comprise a large number of homogenous loans that share similar characteristics, statistical estimates and techniques are used, as well as credit scoring analysis.

Retail Banking clients are considered credit-impaired where they are more 90 days past due. Retail Banking products are also considered credit-impaired if the borrower files for bankruptcy or other forbearance programme, the borrower is deceased or the business is closed in the case of a small business, or if the borrower surrenders the collateral, or there is an identified fraud on the account. Additionally, if the account is unsecured and the borrower has other credit accounts with the Group that are considered credit-impaired, the account may be also be credit-impaired.

Techniques used to compute impairment amounts use models which analyse historical repayment and default rates over a time horizon. Where various models are used, judgement is required to analyse the available information provided and select the appropriate model or combination of models to use.

Expert credit judgement is also applied to determine whether any post-model adjustments are required for Credit risk elements which are not captured by the models.

Modified financial instruments

Where the original contractual terms of a financial asset have been modified for credit reasons and the instrument has not been derecognised (an instrument is derecognised when a modification results in a change in cash flows that the Group would consider substantial), the resulting modification loss is recognised within credit impairment in the income statement with a corresponding decrease in the gross carrying value of the asset. If the modification involved a concession that the bank would not otherwise consider, the instrument is considered to be credit-impaired and is considered forborne.

Expected credit loss for modified financial assets that have not been derecognised and are not considered to be credit-impaired will be recognised on a 12-month basis, or a lifetime basis, if there is a significant increase in Credit risk. These assets are assessed (by comparison to the origination date) to determine whether there has been a significant increase in Credit risk subsequent to the modification. Although loans may be modified for non-credit reasons, a significant increase in Credit risk may occur. In addition to the recognition of modification gains and losses, the revised carrying value of modified financial assets will impact the calculation of expected credit losses, with any increase or decrease in expected credit loss recognised within impairment.

Forborne loans

Forborne loans are those loans that have been modified in response to a customer's financial difficulties. Forbearance strategies assist clients who are temporarily in financial distress and are unable to meet their original contractual repayment terms. Forbearance can be initiated by the client, the Group or a third party including government sponsored programmes or a conglomerate of credit institutions. Forbearance may include debt restructuring such as new repayment schedules, payment deferrals, tenor extensions, interest only payments, lower interest rates, forgiveness of principal, interest or fees, or relaxation of loan covenants.

Forborne loans that have been modified (and not derecognised) on terms that are not consistent with those readily available in the market and/or where we have granted a concession compared with the original terms of the loans are considered credit-impaired if there is a detrimental impact on cash flows. The modification loss (see Classification and measurement – Modifications) is recognised in the profit or loss within credit impairment and the gross carrying value of the loan reduced by the same amount. The modified loan is disclosed as 'Loans subject to forbearance – credit-impaired'.

Loans that have been subject to a forbearance modification, but which are not considered credit-impaired (not classified as CG13 or CG14), are disclosed as 'Forborne – not credit-impaired'. This may include amendments to covenants within the contractual terms.

Write-offs of credit-impaired instruments and reversal of impairment

To the extent that a financial debt instrument is considered irrecoverable, the applicable portion of the gross carrying value is written off against the related loan provision. Such loans are written off after all the necessary procedures have been completed, it is decided that there is no realistic probability of recovery and the amount of the loss has been determined. Subsequent recoveries of amounts previously written off decrease the amount of the provision for loan impairment in the income statement. If, in a subsequent period, the amount of the credit impairment loss decreases and the decrease can be related objectively to an event occurring after the credit impairment was recognised (such as an improvement in the debtor's credit rating), the previously recognised credit impairment loss is reversed by adjusting the provision account. The amount of the reversal is recognised in the income statement.

Loss provisions on purchased or originated credit-impaired instruments (POCI)

The Group measures expected credit loss on a lifetime basis for POCI instruments throughout the life of the instrument. However, expected credit loss is not recognised in a separate loss provision on initial recognition for POCI instruments as the lifetime expected credit loss is inherent within the gross carrying amount of the instruments. The Group recognises the change in lifetime expected credit losses arising subsequent to initial recognition in the income statement and the cumulative change as a loss provision. Where lifetime expected credit losses on POCI instruments are less than those at initial recognition, then the favourable differences are recognised as impairment gains in the income statement (and as impairment loss where the expected credit losses are greater).

Improvement in Credit risk/curing

A period may elapse from the point at which instruments enter lifetime expected credit losses (stage 2 or stage 3) and are reclassified back to 12-month expected credit losses (stage 1). For financial assets that are credit-impaired (stage 3), a transfer to stage 2 or stage 1 is only permitted where the instrument is no longer considered to be credit-impaired. An instrument will no longer be considered credit-impaired when there is no shortfall of cash flows compared with the original contractual terms.

For financial assets within stage 2, these can only be transferred to stage 1 when they are no longer considered to have experienced a significant increase in Credit risk.

Where significant increase in Credit risk was determined using quantitative measures, the instruments will automatically transfer back to stage 1 when the original PD based transfer criteria are no longer met. Where instruments were transferred to stage 2 due to an assessment of qualitative factors, the issues that led to the reclassification must be cured before the instruments can be reclassified to stage 1. This includes instances where management actions led to instruments being classified as stage 2, requiring that action to be resolved before loans are reclassified to stage 1.

A forborne loan can only be removed from the disclosure (cured) if the loan is performing (stage 1 or 2) and a further two-year probation period is met.

In order for a forborne loan to become performing, the following criteria have to be satisfied:

- At least a year has passed with no default based upon the forborne contract terms
- The customer is likely to repay its obligations in full without realising security
- The customer has no accumulated impairment against amount outstanding (except for expected credit loss)

Subsequent to the criteria above, a further two-year probation period has to be fulfilled, whereby regular payments are made by the customer and none of the exposures to the customer are more than 30 days past due.

	2019 $million	restated[1] 2018 $million
Net credit impairment against profit on loans and advances to banks and customers	648	525
Net credit impairment against profit or loss during the period relating to debt securities	7	11
Net credit impairment relating to financial guarantees and loan commitments	36	51
Net credit impairment relating to other financial assets	8	-
Credit impairment	**699**	587

1 Restated for discontinued operations (Note 40)

9. Other impairment

Accounting policy

Refer to the below referenced notes for the relevant accounting policy

	2019 $million	restated 2018[1] $million
Impairment of goodwill (Note 16)	23	-
Impairment release of fixed assets	-	(8)
Impairment of other intangible assets (Note 16)	12	43
Other	(1)	(13)
Other impairment	11	22
	34	22

1 Restated for discontinued operations

10. Taxation

Accounting policy

Income tax payable on profits is based on the applicable tax law in each jurisdiction and is recognised as an expense in the period in which profits arise.

Deferred tax is provided on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred tax is determined using tax rates (and laws) that have been enacted or substantively enacted as at the balance sheet date, and that are expected to apply when the related deferred tax asset is realised or the deferred income tax liability is settled.

Deferred tax assets are recognised where it is probable that future taxable profit will be available against which the temporary differences can be utilised. Where permitted, deferred tax assets and liabilities are offset on an entity basis and not by component of deferred taxation.

Current and deferred tax relating to items which are charged or credited directly to equity, is credited or charged directly to equity and is subsequently recognised in the income statement together with the current or deferred gain or loss.

Significant accounting estimates and judgements

- Determining the Group’s tax charge for the year involves estimation and judgement, which includes an interpretation of local tax laws and an assessment of whether the tax authorities will accept the position taken. These judgements take account of external advice where appropriate, and the Group’s view on settling with the relevant tax authorities
- The Group provides for current tax liabilities at the best estimate of the amount that is expected to be paid to the tax authorities where an outflow is probable. In making its estimates, the Group assumes that the tax authorities will examine all the amounts reported to them and have full knowledge of all relevant information
- The recoverability of the Group’s deferred tax assets is based on management’s judgement of the availability of future taxable profits against which the deferred tax assets will be utilised

The following table provides analysis of taxation charge in the year:

	2019 $million	2018 $million
The charge for taxation based upon the profit for the year comprises:		
Current tax:		
United Kingdom corporation tax at 19 per cent (2018: 19 per cent):		
Current tax charge on income for the year	-	10
Adjustments in respect of prior years (including double tax relief)	(9)	53
Foreign tax:		
Current tax charge on income for the year	887	769
Adjustments in respect of prior years	(4)	(101)
	874	731
Deferred tax:		
Origination/reversal of temporary differences	(37)	198
Adjustments in respect of prior years	(41)	129
	(78)	327
Tax on profits on ordinary activities	796	1,058
Effective tax rate	46.3%	nm

1 Not meaningful

The tax charge for the year of $796 million (31 December 2018: $1,058 million) on a profit before tax of $1,719 million (31 December 2018: $519 million) reflects the impact of non-deductible expenses, non-creditable withholding tax and the impact of countries with tax rates higher or lower than the UK, the most significant of which is India. The 2018 charge reflected the impact of non-deductible regulatory provisions and other non-deductible expenses, non-creditable withholding taxes and the impact of countries with tax rates higher or lower than the UK, the most significant of which is India.

Tax rate: The tax charge for the year is higher than the charge at the rate of corporation tax in the UK, 19 per cent. The differences are explained below:

	2019 $million	2018 $million
Profit on ordinary activities before tax	1,719	519
Tax at 19 per cent (2018: 19 per cent)	327	99
Lower tax rates on overseas earnings	(48)	(34)
Higher tax rates on overseas earnings	278	311
Non-creditable withholding taxes	104	153
Tax free income	(67)	(62)
Share of associates and joint ventures	(10)	(5)
Non-deductible expenses	231	295
Regulatory provisions	27	164
Bank levy	66	62
Non-taxable losses on investments	6	59
Payments on financial instruments in reserves	(66)	(68)
Goodwill impairment	4	-
Deferred tax rate changes	(6)	-
Deferred tax assets written-off	30	-
Deferred tax not recognised	13	(21)
Adjustments to tax charge in respect of prior years	(54)	81
Other items	(39)	24
Tax on profit on ordinary activities	796	1,058

Factors affecting the tax charge in future years: The Group's tax charge, and effective tax rate in future years could be affected by several factors including acquisitions, disposals and restructuring of our businesses, the mix of profits across jurisdictions with different statutory tax rates, changes in tax legislation and tax rates and resolution of uncertain tax positions.

The evaluation of uncertain tax positions involves an interpretation of local tax laws which could be subject to challenge by a tax authority, and an assessment of whether the tax authorities will accept the position taken. The Group does not currently consider that assumptions or judgements made in assessing tax liabilities have a significant risk of resulting in a material adjustment within the next financial year.

Tax recognised in other comprehensive income	2019 Current tax $million	2019 Deferred tax $million	2019 Total $million	2018 Current tax $million	2018 Deferred tax $million	2018 Total $million
Items that will not be reclassified to income statement	15	7	22	-	(30)	(30)
Own credit adjustment	17	14	31	-	(29)	(29)
Equity instruments at Fair value through other comprehensive income	5	(11)	(6)	-	1	1
Retirement benefit obligations	(7)	4	(3)	-	(2)	(2)
Items that may not be reclassed subsequently to income statement	2	(52)	(50)	-	36	36
Debt instruments at Fair value through other comprehensive income	2	(30)	(28)	-	36	36
Cash flow hedges	-	(22)	(22)	-	-	-
Total tax credit/(charge) recognised in equity	17	(45)	(28)	-	6	6

Current tax: The following are the movements in current tax during the year:

Current tax comprises:	Group 2019 $million	Group 2018 $million	Company 2019 $million	Company 2018 $million
Current tax assets	492	491	284	373
Current tax liabilities	(686)	(351)	(265)	(122)
Net current tax opening balance before transition	(194)	140	19	251
IFRS 9 transition	-	11	-	-
Net current tax opening balance after transition	(194)	151	19	251
Movements Relating to Discontinued Operations	74	(160)	-	-
Movements in income statement	(874)	(730)	(681)	(439)
Movements in other comprehensive income	17	-	17	-
Taxes paid	1,057	583	697	230
Other movements	3	(38)	15	(24)
Net current tax balance as at 31 December	83	(194)	67	18
Current tax assets	532	492	326	284
Current tax liabilities	(449)	(686)	(259)	(265)
Total	83	(194)	67	19

Deferred tax: The following are the major deferred tax liabilities and assets recognised by the Group and movements thereon during the year:

Group

	At 1 January 2019 $million	Of which Discontinued operations $million	Continuing operations $million	Exchange & other adjustments $million	(Charge)/ credit to profit $million	(Charge)/ credit to equity $million	At 31 December 2019 $million
Deferred tax comprises:							
Accelerated tax depreciation	(423)	(151)	(272)	(3)	(27)	-	(302)
Impairment provisions on loans and advances	961	120	841	(11)	24	-	854
Tax losses carried forward	208	139	69	1	24	-	94
Fair value through other comprehensive income assets	3	(4)	7	-	1	(41)	(33)
Cash flow hedges	(7)	(6)	(1)	1	-	(22)	(22)
Own credit adjustment	(33)	(17)	(16)	-	-	14	(2)
Retirement benefit obligations	40	15	25	(4)	(7)	4	18
Share-based payments	15	15	-	-	(1)	-	(1)
Other temporary differences	(267)	62	(329)	(8)	64	-	(273)
Net deferred tax assets	497	173	324	(24)	78	(45)	333

Notes to the financial statements continued

	At 1 January 2018 $million	Discontinued operations $million	Exchange & other adjustments $million	(Charge)/ credit to profit $million	(Charge)/ credit to equity $million	At 31 December 2018 $million
Deferred tax comprises:						
Accelerated tax depreciation	(329)	(17)	3	(80)	-	(423)
Impairment provisions on loans and advances	1,207	(7)	(68)	(171)	-	961
Tax losses carried forward	223	(11)	(3)	(1)	-	208
Fair value through other comprehensive income assets	(21)	(15)	4	(1)	36	3
Cash flow hedges	(2)	(6)	1	-	-	(7)
Own credit adjustment	11	(16)	1	-	(29)	(33)
Retirement benefit obligations	38	2	(2)	4	(2)	40
Share-based payments	16	(1)	-	-	-	15
Other temporary differences	(187)	(41)	39	(78)	-	(267)
Net deferred tax assets	956	(112)	(25)	(327)	5	497

Deferred tax comprises assets and liabilities as follows:

	2019			2018		
	Total $million	**Asset $million**	**Liability $million**	Total $million	Asset $million	Liability $million
Deferred tax comprises:						
Accelerated tax depreciation	**(302)**	**12**	**(314)**	(423)	7	(430)
Impairment provisions on loans and advances	**854**	**845**	**9**	961	938	23
Tax losses carried forward	**94**	**85**	**9**	208	126	82
Fair value through other comprehensive income assets	**(33)**	**(24)**	**(9)**	3	(2)	5
Cash flow hedges	**(22)**	**(3)**	**(19)**	(7)	(12)	5
Own credit adjustment	**(2)**	**-**	**(2)**	(33)	(18)	(15)
Retirement benefit obligations	**18**	**15**	**3**	40	40	-
Share-based payments	**(1)**	**(1)**	**-**	15	15	-
Other temporary differences	**(273)**	**(99)**	**(174)**	(267)	(47)	(220)
	333	**830**	**(497)**	497	1,047	(550)

Deferred tax: The following are the major deferred tax liabilities and assets recognised by the Group and movements thereon during the year:

Company

	At 1 January 2019 $million	**Exchange & other adjustments $million**	**(Charge)/ credit to profit $million**	**(Charge)/ credit to equity $million**	**At 31 December 2019 $million**
Deferred tax comprises:					
Accelerated tax depreciation	**(267)**	**(3)**	**(18)**	**-**	**(288)**
Impairment provisions on loans and advances	**784**	**(9)**	**39**	**-**	**814**
Tax losses carried forward	**37**	**1**	**34**	**-**	**72**
Fair value through other comprehensive income assets	**9**	**1**	**-**	**(36)**	**(26)**
Cash flow hedges	**-**	**(1)**	**-**	**(20)**	**(21)**
Own credit adjustment	**(15)**	**-**	**-**	**13**	**(2)**
Retirement benefit obligations	**23**	**(7)**	**(8)**	**2**	**10**
Share-based payments	**-**	**-**	**(1)**	**-**	**(1)**
Other temporary differences	**(316)**	**9**	**28**	**-**	**(279)**
Net deferred tax assets	**255**	**(9)**	**74**	**(41)**	**279**

	At 1 January 2018 $million	Exchange & other adjustments $million	(Charge)/ credit to profit $million	(Charge)/ credit to equity $million	At 31 December 2018 $million
Deferred tax comprises:					
Accelerated tax depreciation	(190)	4	(81)	-	(267)
Impairment provisions on loans and advances	1,007	(62)	(161)	-	784
Tax losses carried forward	36	-	1	-	37
Fair value through other comprehensive income assets	(20)	1	-	28	9
Cash flow hedges	(1)	-	-	1	-
Own credit adjustment	13	1	-	(29)	(15)
Retirement benefit obligations	23	(2)	4	(2)	23
Share-based payments	-	-	-	-	-
Other temporary differences	(271)	26	(71)	-	(316)
Net deferred tax assets	597	(32)	(308)	(2)	255

Deferred tax comprises assets and liabilities as follows:

	2019			2018		
	Total $million	**Asset $million**	**Liability $million**	Total $million	Asset $million	Liability $million
Deferred tax comprises:						
Accelerated tax depreciation	**(288)**	**12**	**(300)**	(267)	4	(271)
Impairment provisions on loans and advances	**814**	**816**	**(2)**	784	781	3
Tax losses carried forward	**72**	**72**	**-**	37	37	-
Fair value through other comprehensive income assets	**(26)**	**(17)**	**(9)**	9	5	4
Cash flow hedges	**(21)**	**(3)**	**(18)**	-	(5)	5
Own credit adjustment	**(2)**	**-**	**(2)**	(15)	-	(15)
Retirement benefit obligations	**10**	**10**	**-**	23	23	-
Share-based payments	**(1)**	**(1)**	**-**	-	-	-
Other temporary differences	**(279)**	**(175)**	**(104)**	(316)	(180)	(136)
	279	**714**	**(435)**	255	665	(410)

As at 31 December 2019, the Group has net deferred tax assets of $333 million (31 December 2018: $497 million). The recoverability of the Group's deferred tax assets is based on management's judgement of the availability of future taxable profits against which the deferred tax assets will be utilised.

Of the Group's total deferred tax assets, $94 million relates to tax losses carried forward. These tax losses have arisen in individual legal entities and will be offset as future taxable profits arise in those entities.

→ $70 million of the deferred tax assets relating to losses has arisen in the US. Management forecasts show that the losses are expected to be fully utilised over a period of nine years. The tax losses expire after 20 years

The remaining deferred tax assets of $24 million relating to losses has arisen in other jurisdictions and is expected to be recovered in less than 10 years.

	Group		Company	
	2019 $million	2018 $million	**2019 $million**	2018 $million
No account has been taken of the following potential deferred tax assets/(liabilities):				
Withholding tax on unremitted earnings from overseas subsidiaries	**(162)**	(202)	**(79)**	(120)
Tax losses	**427**	389	**371**	368
Held over gains on incorporation of overseas branches	**(186)**	(188)	**(186)**	(188)
Other temporary differences	**83**	79	**77**	73

11. Dividends

Accounting policy

Dividends on ordinary shares and preference shares classified as equity are recognised in equity in the year in which they are declared.

Dividends on ordinary equity shares are recorded in the year in which they are declared and, in respect of the final dividend, have been approved by the shareholders.

The Court considers a number of factors which include the rate of recovery in the Group's financial performance, the macroeconomic environment, and opportunities to further invest in our business and grow profitably in our markets.

Notes to the financial statements continued

Ordinary equity shares

	2019		2018	
	Cents per share	$million	Cents per share	$million
Interim dividend declared and paid during the year	2.07	393[1]	1.45	384[2]

1 Of which was split between two dividends, both paid out in the first half of 2019, of $141 million and $252 million
2 Of which was split between two dividends, $193 million was paid out in the first half of 2018 and $191 million in the second half of 2018

$11,142 million dividends (including dividends in specie) were paid during the year as a result of the group reorganisation, details of which are given in Note 40 (Discontinued operations).

Dividends on ordinary equity shares are recorded in the period in which they are declared and, in respect of the final dividend, have been approved by the shareholders. Accordingly, the final ordinary equity share dividends set out above relate to the respective prior years.

Preference shares and Additional Tier 1 securities

Dividends on these preference shares and securities classified as equity are recorded in the period in which they are declared.

		2019	2018
		$million	$million
Non-cumulative redeemable preference shares:	7.014 per cent preference shares of $5 each	53	53
	6.409 per cent preference shares of $5 each	30	26
		83	79
Additional Tier 1 securities: $5 billion fixed rate resetting perpetual subordinated contingent convertible securities		358	359
		441	438

12. Financial instruments

Classification and measurement

Accounting policy

The Group classifies its financial assets into the following measurement categories: amortised cost; fair value through other comprehensive income (FVOCI); and fair value through profit or loss (FVTPNL). Financial liabilities are classified as either amortised cost, or held at fair value through profit or loss. Management determines the classification of its financial assets and liabilities at initial recognition of the instrument or, where applicable, at the time of reclassification.

Financial assets held at amortised cost and fair value through other comprehensive income

Debt instruments held at amortised cost or held at FVOCI have contractual terms that give rise to cash flows that are solely payments of principal and interest (SPPI characteristics). Principal is the fair value of the financial asset at initial recognition but this may change over the life of the instrument as amounts are repaid. Interest consists of consideration for the time value of money, for the Credit Risk associated with the principal amount outstanding during a particular period and for other basic lending risks and costs, as well as a profit margin.

In assessing whether the contractual cash flows have SPPI characteristics, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making the assessment, the Group considers:

→ Contingent events that would change the amount and timing of cash flows
→ Leverage features
→ Prepayment and extension terms
→ Terms that limit the Group's claim to cash flows from specified assets (e.g. non-recourse asset arrangements);
→ Features that modify consideration of the time value of money – e.g. periodical reset of interest rates

Whether financial assets are held at amortised cost, FVTPL or at FVOCI depends on the objectives of the business models under which the assets are held. A business model refers to how the Group manages financial assets to generate cash flows.

The Group makes an assessment of the objective of a business model in which an asset is held at the individual product business line, and where applicable within business lines, depending on the way the business is managed and information is provided to management. Factors considered include:

→ How the performance of the product business line is evaluated and reported to the Group's management
→ How managers of the business model are compensated, including whether management is compensated based on the fair value of assets or the contractual cash flows collected
→ The risks that affect the performance of the business model and how those risks are managed
→ The frequency, volume and timing of sales in prior periods, the reasons for such sales and expectations about future sales activity

The Group's business model assessment is as follows:

Business model	Business objective	Characteristics	Businesses	Products
Hold to collect	Intent is to originate financial assets and hold them to maturity, collecting the contractual cash flows over the term of the instrument	→ Providing financing and originating assets to earn interest income as primary income stream → Performing Credit Risk management activities → Costs include funding costs, transaction costs and impairment losses	→ Corporate Lending → Corporate Finance → Transaction Banking → Retail Lending → Treasury Markets (Loans and Borrowings) → Financial Markets (selected)	→ Loans and advances → Debt securities
Hold to collect and sell	Business objective met through both hold to collect and by selling financial assets	→ Portfolios held for liquidity needs; or where a certain interest yield profile is maintained; or that are normally rebalanced to achieve matching of duration of assets and liabilities → Income streams come from interest income, fair value changes, and impairment losses	→ Treasury Markets	→ Debt securities
Fair value through profit or loss	All other business objectives, including trading and managing financial assets on a fair value basis	→ Assets held for trading → Assets that are originated, purchased, and sold for profit taking or underwriting activity → Performance of the portfolio is evaluated on a fair value basis → Income streams are from fair value changes or trading gains or losses	→ All other business lines	→ Derivatives → Trading portfolios → Financial Markets reverse repos

Financial assets which have SPPI characteristics and that are held within a business model whose objective is to hold financial assets to collect contractual cash flows ('hold to collect') are recorded at amortised cost. Conversely, financial assets which have SPPI characteristics but are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets ('hold to collect and sell') are classified as held at FVOCI.

Both hold to collect business and a hold to collect and sell business model involve holding financial assets to collect the contractual cash flows. However, the business models are distinct by reference to the frequency and significance that asset sales play in meeting the objective under which a particular group of financial assets is managed. Hold to collect business models are characterised by asset sales that are incidental to meeting the objectives under which a group of assets is managed. Sales of assets under a hold to collect business model can be made to manage increases in the Credit Risk of financial assets but sales for other reasons should be infrequent or insignificant.

Cash flows from the sale of financial assets under a hold to collect and sell business model by contrast are integral to achieving the objectives under which a particular group of financial assets are managed. This may be the case where frequent sales of financial assets are required to manage the Group's daily liquidity requirements or to meet regulatory requirements to demonstrate liquidity of financial instruments. Sales of assets under hold to collect and sell business models are therefore both more frequent and more significant in value than those under the hold to collect model.

Equity instruments designated as held at FVOCI

Non-trading equity instruments acquired for strategic purposes rather than capital gain may be irrevocably designated at initial recognition as held at FVOCI on an instrument by instrument basis. Dividends received are recognised in profit or loss. Gains and losses arising from changes in the fair value of these instruments, including foreign exchange gains and losses, are recognised directly in equity and are never reclassified to profit or loss even on derecognition.

Financial assets and liabilities held at fair value through profit or loss

Financial assets which are not held at amortised cost or that are not held at FVOCI are held at fair value through profit or loss. Financial assets and liabilities held at fair value through profit or loss are either mandatorily classified fair value through profit or loss or irrevocably designated at fair value through profit or loss at initial recognition.

Mandatorily classified at fair value through profit or loss

Financial assets and liabilities which are mandatorily held at fair value through profit or loss are split between two subcategories as follows:

Trading, including:

→ Financial assets and liabilities held for trading, which are those acquired principally for the purpose of selling in the short-term

→ Derivatives

Non-trading mandatorily at fair value through profit or loss, including

- Instruments in a business which has a fair value business model (see the Group's business model assessment) which are not trading or derivatives
- Hybrid financial assets that contain one or more embedded derivatives
- Financial assets that would otherwise be measured at amortised cost or FVOCI but which do not have SPPI characteristics
- Equity instruments that have not been designated as held at FVOCI
- Financial liabilities that constitute contingent consideration in a business combination

Designated at fair value through profit or loss

Financial assets and liabilities may be designated at fair value through profit or loss when the designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities on a different basis ('accounting mismatch').

Interest rate swaps have been acquired by the Group with the intention of significantly reducing interest rate risk on certain debt securities with fixed rates of interest. To significantly reduce the accounting mismatch between assets and liabilities and measurement bases, these debt securities have been designated at fair value through profit or loss.

Similarly, to reduce accounting mismatches, the Group has designated certain financial liabilities at fair value through profit or loss where the liabilities either:

- Have fixed rates of interest and interest rate swaps or other interest rate derivatives have been entered with the intention of significantly reducing interest rate risk; or
- Are exposed to foreign currency risk and derivatives have been acquired with the intention of significantly reducing exposure to market changes; or
- Have been acquired to fund trading asset portfolios or assets

Financial liabilities may also be designated at fair value through profit or loss where they are managed on a fair value basis or have a embedded derivative where the Group is not able to bifurcate and separately value the embedded derivative component.

Financial liabilities held at amortised cost

Financial liabilities that are not financial guarantees or loan commitments and that are not classified as financial liabilities held at fair value through profit or loss are classified as financial liabilities held at amortised cost.

Preference shares which carry a mandatory coupon that represents a market rate of interest at the issue date, or which are redeemable on a specific date or at the option of the shareholder are classified as financial liabilities and are presented in other borrowed funds. The dividends on these preference shares are recognised in the income statement as interest expense on an amortised cost basis using the effective interest method.

Financial guarantee contracts and loan commitments

The Group issues financial guarantee contracts and loan commitments in return for fees. Under a financial guarantee contract, the Group undertakes to meet a customer's obligations under the terms of a debt instrument if the customer fails to do so. Loan commitments are firm commitments to provide credit under prespecified terms and conditions. Financial guarantee contracts and loan commitments issued at below market interest rates are initially recognised as liabilities at fair value, while financial guarantees and loan commitments issued at market rates are recorded off-balance sheet. Subsequently, these instruments are measured at the higher of the expected credit loss provision, and the amount initially recognised less the cumulative amount of income recognised in accordance with the principles of IFRS 15 Revenue from Contracts with Customers. Refer to page 169 for expected credit loss on loan commitments and financial guarantees.

Fair value of financial assets and liabilities

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 in the principal market for the asset or liability, or in the absence of a principal market, the most advantageous market to which the Group has access at the date. The fair value of a liability includes the risk that the bank will not be able to honour its obligations.

The fair value of financial instruments is generally measured on the basis of the individual financial instrument. However, when a group of financial assets and financial liabilities is managed on the basis of its net exposure to either Market Risk or Credit Risk, the fair value of the group of financial instruments is measured on a net basis.

The fair values of quoted financial assets and liabilities in active markets are based on current prices. A market is regarded as active if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. If the market for a financial instrument, and for unlisted securities, is not active, the Group establishes fair value by using valuation techniques.

Initial recognition

Purchases and sales of financial assets and liabilities held at fair value through profit or loss, and debt securities classified as financial assets held at FVOCI are initially recognised on the trade-date (the date on which the Group commits to purchase or sell the asset). Loans and advances and other financial assets held at amortised cost are recognised on the settlement date (the date on which cash is advanced to the borrowers).

All financial instruments are initially recognised at fair value, which is normally the transaction price, plus directly attributable transaction costs for financial assets which are not subsequently measured at fair value through profit or loss.

In certain circumstances, the initial fair value may be based on a valuation technique which may lead to the recognition of profits or losses at the time of initial recognition. However, these profits or losses can only be recognised when the valuation technique used is based solely on observable market data. In those cases where the initially recognised fair value is based on a valuation model that uses unobservable inputs, the difference between the transaction price and the valuation model is not recognised immediately in the income statement but is amortised or released to the income statement as the inputs become observable, or the transaction matures or is terminated.

Subsequent measurement

Financial assets and financial liabilities held at amortised cost

Financial assets and financial liabilities held at amortised cost are subsequently carried at amortised cost using the effective interest method (see Interest income and expense). Foreign exchange gains and losses are recognised in the income statement.

Where a financial instrument carried at amortised cost is the hedged item in a qualifying fair value hedge relationship, its carrying value is adjusted by the fair value gain or loss attributable to the hedged risk.

Financial assets held at FVOCI

Debt instruments held at FVOCI are subsequently carried at fair value, with all unrealised gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in a separate component of equity. Interest income, impairment and foreign exchange gains and losses are recognised in profit or loss when they occur, with changes in expected credit losses accumulated in equity. On derecognition, the cumulative fair value gains or losses, net of the cumulative expected credit loss reserve, are transferred to the profit or loss.

Equity investments designated at FVOCI are subsequently carried at fair value with all unrealised gains and losses arising from changes in fair value (including any related foreign exchange gains or losses) recognised in other comprehensive income and accumulated in a separate component of equity. On derecognition, the cumulative reserve is transferred to retained earnings and is not recycled to profit or loss.

Financial assets and liabilities held at fair value through profit or loss

Financial assets and liabilities mandatorily held at fair value through profit or loss and financial assets designated at fair value through profit or loss are subsequently carried at fair value, with gains and losses arising from changes in fair value, including contractual interest income or expense, recorded in the net trading income line in the profit or loss unless the instrument is part of a cash flow hedging relationship.

Financial liabilities designated at fair value through profit or loss

Financial liabilities designated at fair value through profit or loss are held at fair value, with changes in fair value recognised in the net trading income line in the profit or loss, other than that attributable to changes in Credit Risk. Fair value changes attributable to Credit Risk are recognised in other comprehensive income and recorded in a separate category of reserves unless this is expected to create or enlarge an accounting mismatch, in which case the entire change in fair value of the financial liability designated at fair value through profit or loss is recognised in profit or loss.

Derecognition of financial instruments

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or where the Group has transferred substantially all risks and rewards of ownership. If substantially all the risks and rewards have been neither retained nor transferred and the Group has retained control, the assets continue to be recognised to the extent of the Group's continuing involvement.

Where financial assets have been modified, the modified terms are assessed on a qualitative and quantitative basis to determine whether a fundamental change in the nature of the instrument has occurred, such as whether the derecognition of the pre-existing instrument and the recognition of a new instrument is appropriate.

On derecognition of a financial asset, the difference between the carrying amount of the asset (or the carrying amount allocated to the portion of the asset derecognised) and the sum of the consideration received (including any new asset obtained, less any new liability assumed) and any cumulative gain or loss that had been recognised in other comprehensive income is recognised in profit or loss except for equity instruments elected FVOCI (see above) and cumulative fair value adjustments attributable to the Credit Risk of a liability that are held in other comprehensive income.

Financial liabilities are derecognised when they are extinguished. A financial liability is extinguished when the obligation is discharged, cancelled or expires and this is evaluated both qualitatively and quantitatively. However, where a financial liability has been modified, it is derecognised if the difference between the modified cash flows and the original cash flows is more than 10 per cent, or if less than 10 per cent, the Group will perform a qualitative assessment to determine whether the terms of the two instruments are substantially different.

If the Group purchases its own debt, it is derecognised and the difference between the carrying amount of the liability and the consideration paid is included in 'Other income' except for the cumulative fair value adjustments attributable to the Credit Risk of a liability that are held in other comprehensive income which are never recycled to the profit or loss.

Modified financial instruments

Financial assets and financial liabilities whose original contractual terms have been modified, including those loans subject to forbearance strategies, are considered to be modified instruments. Modifications may include changes to the tenor, cash flows and or interest rates, among other factors.

Where derecognition of financial assets is appropriate (see Derecognition), the newly recognised residual loans are assessed to determine whether the assets should be classified as purchased or originated credit-impaired assets (POCI).

Where derecognition is not appropriate, the gross carrying amount of the applicable instruments is recalculated as the present value of the renegotiated or modified contractual cash flows discounted at the original effective interest rate (or credit adjusted effective interest rate for POCI financial assets). The difference between the recalculated values and the pre-modified gross carrying values of the instruments are recorded as a modification gain or loss in the profit or loss.

Gains and losses arising from modifications for credit reasons are recorded as part of 'credit Impairment' (see credit impairment policy). Modification gains and losses arising for non-credit reasons are recognised either as part of "credit impairment or within income depending on whether there has been a change in the Credit Risk on the financial asset subsequent to the modification. Modification gains and losses arising on financial liabilities are recognised within income. The movements in the applicable expected credit loss loan positions are disclosed in further detail in Risk review.

Reclassifications

Financial liabilities are not reclassified subsequent to initial recognition. Reclassifications of financial assets are made when, and only when, the business model for those assets changes. Such changes are expected to be infrequent and arise as a result of significant external or internal changes such as the termination of a line of business or the purchase of a subsidiary whose business model is to realise the value of pre-existing held for trading financial assets through a hold to collect model.

Financial assets are reclassified at their fair value on the date of reclassification and previously recognised gains and losses are not restated. Moreover, reclassifications of financial assets between financial assets held at amortised cost and financial assets held at FVOCI do not affect effective interest rate or expected credit loss computations.

Reclassified from amortised cost

Where financial assets held at amortised cost are reclassified to financial assets held at FVTPL, the difference between the fair value of the assets at the date of reclassification and the previously recognised amortised cost is recognised in profit or loss.

For financial assets held at amortised cost that are reclassified to FVOCI, the difference between the fair value of the assets at the date of reclassification and the previously recognised gross carrying value is recognised in other comprehensive income. Additionally, the related cumulative expected credit loss amounts relating to the reclassified financial assets are reclassified from loan loss provisions to a separate reserve in other comprehensive income at the date of reclassification.

Reclassified from fair value through other comprehensive income

Where financial assets held at FVOCI are reclassified to financial assets held at fair value through profit or loss, the cumulative gain or loss previously recognised in other comprehensive income is transferred to the profit or loss.

For financial assets held at FVOCI that are reclassified to financial assets held at amortised cost, the cumulative gain or loss previously recognised in other comprehensive income is adjusted against the fair value of the financial asset such that the financial asset is recorded at a value as if it had always been held at amortised cost. In addition, the related cumulative expected credit losses held within other comprehensive income are reversed against the gross carrying value of the reclassified assets at the date of reclassification.

Reclassified from fair value through profit or loss

Where financial assets held at FVTPL are reclassified to financial assets held at fair value through other comprehensive income or financial assets held at amortised cost, the fair value at the date of reclassification is used to determine the effective interest rate on the financial asset going forward. In addition, the date of reclassification is used as the date of initial recognition for the calculation of expected credit losses. Where financial assets held at fair value through profit or loss are reclassified to financial assets held at amortised cost, the fair value at the date of reclassification becomes the gross carrying value of the financial asset.

Notes to the financial statements continued

The Group's classification of its financial assets and liabilities is summarised in the following tables.

Group

Assets	Notes	Trading $million	Derivatives held for hedging $million	Assets at fair value: Non-trading mandatorily at fair value through profit or loss $million	Designated at fair value through profit or loss $million	Fair value through other comprehensive income $million	Total financial assets at fair value $million	Assets held at amortised cost $million	Total $million
Cash and balances at central banks		-	-	-	-	-	-	43,926	43,926
Financial assets held at fair value through profit or loss									
Loans and advances to banks[1]		118	-	3,272	-	-	3,390	-	3,390
Loans and advances to customers[1]		1,805	-	1,667	-	-	3,472	-	3,472
Reverse repurchase agreements and other similar secured lending	15	-	-	57,430	-	-	57,430	-	57,430
Debt securities, alternative tier one and other eligible bills		13,428	-	582	-	-	14,010	-	14,010
Equity shares		2,089	-	76	-	-	2,165	-	2,165
		17,440	-	63,027	-	-	80,467	-	80,467
Derivative financial instruments	13	48,362	521	-	-	-	48,883	-	48,883
Loans and advances to banks[1]	14	-	-	-	-	-	-	36,948	36,948
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	585	585
Loans and advances to customers[1]	14	-	-	-	-	-	-	139,181	139,181
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	1,339	1,339
Investment securities									
Debt securities, alternative tier one and other eligible bills		-	-	-	-	77,170	77,170	12,061	89,231
Equity shares		-	-	-	-	735	735	-	735
		-	-	-	-	77,905	77,905	12,061	89,966
Other assets	19	-	-	-	-	-	-	20,385	20,385
Assets held for sale	20	-	-	64	243	-	307	70	377
Total as at 31 December 2019		65,802	521	63,091	243	77,905	207,562	252,571	460,133

1 Further analysed in Risk review and Capital review (pages 45 to 139)

Assets	Notes	Assets at fair value: Trading $million	Derivatives held for hedging $million	Non-trading mandatorily at fair value through profit or loss $million	Designated at fair value through profit or loss $million	Fair value through other comprehensive income $million	Total financial assets at fair value $million	Assets held at amortised cost $million	Total $million
Cash and balances at central banks		-	-	-	-	-	-	57,511	57,511
Financial assets held at fair value through profit or loss									
Loans and advances to banks[1]		146	-	3,622	-	-	3,768	-	3,768
Loans and advances to customers[1]		1,074	-	3,854	-	-	4,928	-	4,928
Reverse repurchase agreements and other similar secured lending	15	-	-	54,769	-	-	54,769	-	54,769
Debt securities, alternative tier one and other eligible bills		21,246	-	393	337	-	21,976	-	21,976
Equity shares		1,347	-	218	4	-	1,569	-	1,569
		23,813	-	62,856	341	-	87,010	-	87,010
Derivative financial instruments	13	46,486	504	-	-	-	46,990	-	46,990
Loans and advances to banks[1]	14	-	-	-	-	-	-	61,411	61,411
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	3,815	3,815
Loans and advances to customers[1]	14	-	-	-	-	-	-	256,562	256,562
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	3,151	3,151
Investment securities									
Debt securities, alternative tier one and other eligible bills		-	-	-	-	116,335	116,335	9,303	125,638
Equity shares		-	-	-	-	263	263	-	263
		-	-	-	-	116,598	116,598	9,303	125,901
Other assets	19	-	-	-	-	-	-	32,666	32,666
Assets held for sale	20	-	-	280	308	-	588	129	717
Total as at 31 December 2018		70,299	504	63,136	649	116,598	251,186	417,582	668,768

1 Further analysed in Risk review and Capital review (pages 45 to 139)

Notes to the financial statements continued

Company

Assets	Notes	Assets at fair value: Trading $million	Derivatives held for hedging $million	Non-trading mandatorily at fair value through profit or loss $million	Designated at fair value through profit or loss $million	Fair value through other comprehensive income $million	Total financial assets at fair value $million	Assets held at amortised cost $million	Total $million
Cash and balances at central banks		-	-	-	-	-	-	34,734	34,734
Financial assets held at fair value through profit or loss									
Loans and advances to banks[1]		118	-	2,953	-	-	3,071	-	3,071
Loans and advances to customers[1]		898	-	986	-	-	1,884	-	1,884
Reverse repurchase agreements and other similar secured lending	15	-	-	57,041	-	-	57,041	-	57,041
Debt securities, alternative tier one and other eligible bills		9,703	-	1,018	-	-	10,721	-	10,721
Equity shares		2,088	-	30	-	-	2,118	-	2,118
		12,807	-	62,028	-	-	74,835	-	74,835
Derivative financial instruments	13	48,009	515	-	-	-	48,524	-	48,524
Loans and advances to banks[1]	14	-	-	-	-	-	-	22,265	22,265
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	146	146
Loans and advances to customers[1]	14	-	-	-	-	-	-	76,845	76,845
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	1,179	1,179
Investment securities									
Debt securities, alternative tier one and other eligible bills		-	-	-	-	61,161	61,161	10,487	71,648
Equity shares		-	-	-	-	193	193	-	193
		-	-	-	-	61,354	61,354	10,487	71,841
Other assets	19	-	-	-	-	-	-	17,750	17,750
Assets held for sale	20	-	-	-	-	-	-	70	70
Total as at 31 December 2019		60,816	515	62,028	-	61,354	184,713	162,151	346,864

1 Further analysed in Risk review and Capital review (pages 45 to 139)

Assets	Notes	Assets at fair value: Trading $million	Derivatives held for hedging $million	Non-trading mandatorily at fair value through profit or loss $million	Designated at fair value through profit or loss $million	Fair value through other comprehensive income $million	Total financial assets at fair value $million	Assets held at amortised cost $million	Total $million
Cash and balances at central banks		-	-	-	-	-	-	44,749	44,749
Financial assets held at fair value through profit or loss									
Loans and advances to banks[1]		146	-	3,275	-	-	3,421	-	3,421
Loans and advances to customers[1]		827	-	982	-	-	1,809	-	1,809
Reverse repurchase agreements and other similar secured lending	15	-	-	54,413	-	-	54,413	-	54,413
Debt securities, alternative tier one and other eligible bills		10,498	-	150	-	-	10,648	-	10,648
Equity shares		1,346	-	13	-	-	1,359	-	1,359
		12,817	-	58,833	-	-	71,650	-	71,650
Derivative financial instruments	13	46,563	367	-	-	-	46,930	-	46,930
Loans and advances to banks[1]	14	-	-	-	-	-	-	23,732	23,732
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	26	26
Loans and advances to customers[1]	14	-	-	-	-	-	-	77,282	77,282
Of which: reverse repurchase agreements and other similar secured lending	15	-	-	-	-	-	-	1,470	1,470
Investment securities									
Debt securities, alternative tier one and other eligible bills		-	-	-	-	54,453	54,453	9,356	63,809
Equity shares		-	-	-	-	174	174	-	174
		-	-	-	-	54,627	54,627	9,356	63,983
Other assets	19	-	-	-	-	-	-	19,069	19,069
Assets held for sale	20	1,992	-	35	-	2,873	4,900	37,012	41,912
Total as at 31 December 2018		61,372	367	58,868	-	57,500	178,107	211,200	389,307

1 Further analysed in Risk review and Capital review (pages 45 to 139)

Group

Liabilities	Notes	Liabilities at fair value: Trading $million	Derivatives held for hedging $million	Designated at fair value through profit or loss $million	Total financial liabilities at fair value $million	Amortised cost $million	Total $million
Financial liabilities held at fair value through profit or loss							
Deposits by banks		-	-	348	348	-	348
Customer accounts		-	-	4,221	4,221	-	4,221
Repurchase agreements and other similar secured borrowing	15	-	-	45,820	45,820	-	45,820
Debt securities in issue	21	-	-	6,271	6,271	-	6,271
Short positions		1,659	-	-	1,659	-	1,659
		1,659	-	56,660	58,319	-	58,319
Derivative financial instruments	13	48,427	560	-	48,987	-	48,987
Deposits by banks		-	-	-	-	24,126	24,126
Customer accounts		-	-	-	-	210,262	210,262
Repurchase agreements and other similar secured borrowing	15	-	-	-	-	178	178
Debt securities in issue	21	-	-	-	-	31,243	31,243
Other liabilities	22	-	-	-	-	24,247	24,247
Subordinated liabilities and other borrowed funds	26	-	-	-	-	13,029	13,029
Total as at 31 December 2019		50,086	560	56,660	107,306	303,085	410,391

Liabilities	Notes	Liabilities at fair value Trading $million	Derivatives held for hedging $million	Designated at fair value through profit or loss $million	Total financial liabilities at fair value $million	Amortised cost $million	Total $million
Financial liabilities held at fair value through profit or loss							
Deposits by banks		-	-	318	318	-	318
Customer accounts		-	-	6,751	6,751	-	6,751
Repurchase agreements and other similar secured borrowing	15	-	-	43,000	43,000	-	43,000
Debt securities in issue	21	-	-	7,405	7,405	-	7,405
Short positions		3,226	-	-	3,226	-	3,226
		3,226	-	57,474	60,700	-	60,700
Derivative financial instruments	13	46,951	502	-	47,453	-	47,453
Deposits by banks		-	-	-	-	29,715	29,715
Customer accounts		-	-	-	-	391,013	391,013
Repurchase agreements and other similar secured borrowing	15	-	-	-	-	1,401	1,401
Debt securities in issue	21	-	-	-	-	29,188	29,188
Other liabilities	22	-	-	-	-	37,935	37,935
Subordinated liabilities and other borrowed funds	26	-	-	-	-	13,245	13,245
Liabilities included in disposal groups held for sale	20	124	-	-	124	-	124
Total as at 31 December 2018		50,301	502	57,474	108,277	502,497	610,774

Company

Liabilities	Notes	Liabilities at fair value Trading $million	Derivatives held for hedging $million	Designated at fair value through profit or loss $million	Total financial liabilities at fair value $million	Amortised cost $million	Total $million
Financial liabilities held at fair value through profit or loss							
Deposits by banks		-	-	349	349	-	349
Customer accounts		-	-	4,032	4,032	-	4,032
Repurchase agreements and other similar secured borrowing	15	-	-	45,587	45,587	-	45,587
Debt securities in issue	21	-	-	6,050	6,050	-	6,050
Short positions		1,397	-	-	1,397	-	1,397
		1,397	-	56,018	57,415	-	57,415
Derivative financial instruments	13	47,964	483	-	48,447	-	48,447
Deposits by banks		-	-	-	-	19,232	19,232
Customer accounts		-	-	-	-	124,032	124,032
Repurchase agreements and other similar secured borrowing	15	-	-	-	-	178	178
Debt securities in issue	21	-	-	-	-	30,748	30,748
Other liabilities	22	-	-	-	-	18,634	18,634
Subordinated liabilities and other borrowed funds	26	-	-	-	-	12,489	12,489
Total as at 31 December 2019		49,361	483	56,018	105,862	205,313	311,175

Liabilities	Notes	Liabilities at fair value: Trading $million	Derivatives held for hedging $million	Designated at fair value through profit or loss $million	Total financial liabilities at fair value $million	Amortised cost $million	Total $million
Financial liabilities held at fair value through profit or loss							
Deposits by banks		-	-	103	103	-	103
Customer accounts		-	-	2,313	2,313	-	2,313
Repurchase agreements and other similar secured borrowing	15	-	-	42,137	42,137	-	42,137
Debt securities in issue	21	-	-	5,036	5,036	-	5,036
Short positions		1,470	-	-	1,470	-	1,470
		1,470	-	49,589	51,059	-	51,059
Derivative financial instruments	13	46,261	407	-	46,668	-	46,668
Deposits by banks		-	-	-	-	22,434	22,434
Customer accounts		-	-	-	-	120,890	120,890
Repurchase agreements and other similar secured borrowing	15	-	-	-	-	434	434
Debt securities in issue	21	-	-	-	-	23,898	23,898
Other liabilities	22	-	-	-	-	21,013	21,013
Subordinated liabilities and other borrowed funds	26	-	-	-	-	12,467	12,467
Liabilities included in disposal groups held for sale	20	47	-	-	47	36,709	36,756
Total as at 31 December 2018		47,778	407	49,589	97,774	237,845	335,619

Offsetting of financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the asset and settle the liability simultaneously.

In practice, for credit mitigation, the Group is able to offset assets and liabilities which do not meet the IAS 32 netting criteria set out above. Such arrangements include master netting arrangements for derivatives and global master repurchase agreements for repurchase and reverse repurchase transactions. These agreements generally allow that all outstanding transactions with a particular counterparty can be offset but only in the event of default or other predetermined events.

In addition the Group also receives and pledges readily realisable collateral for derivative transactions to cover net exposure in the event of a default. Under repurchase and reverse repurchase agreements the Group pledges (legally sells) and obtains (legally purchases) respectively, highly liquid assets which can be sold in the event of a default.

The following tables set out the impact of netting on the balance sheet. This comprises derivative transactions settled through an enforceable netting agreement where we have the intent and ability to settle net and which are offset on the balance sheet.

Group

	2019					
				Related amount not offset in the balance sheet		
	Gross amounts of recognised financial instruments $million	Impact of offset in the balance sheet $million	Net amounts of financial instruments presented in the balance sheet $million	Financial instruments $million	Financial collateral $million	Net amount $million
Assets						
Derivative financial instruments	65,525	(16,642)	48,883	(31,106)	(7,604)	10,173
Reverse repurchase agreements and other similar secured lending	62,475	(3,121)	59,354	-	(59,354)	-
As at 31 December 2019	128,000	(19,763)	108,237	(31,106)	(66,958)	10,173
Liabilities						
Derivative financial instruments	65,629	(16,642)	48,987	(31,106)	(8,780)	9,101
Repurchase agreements and other similar secured borrowing	49,119	(3,121)	45,998	-	(45,998)	-
As at 31 December 2019	114,748	(19,763)	94,985	(31,106)	(54,778)	9,101

	2018					
	Gross amounts of recognised financial instruments	Impact of offset in the balance sheet	Net amounts of financial instruments presented in the balance sheet	Related amount not offset in the balance sheet		Net amount
				Financial instruments	Financial collateral	
	$million	$million	$million	$million	$million	$million
Assets						
Derivative financial instruments	56,643	(9,653)	46,990	(32,283)	(9,259)	5,448
Reverse repurchase agreements and other similar secured lending	65,191	(3,456)	61,735	-	(61,735)	-
As at 31 December 2018	121,834	(13,109)	108,725	(32,283)	(70,994)	5,448
Liabilities						
Derivative financial instruments	57,106	(9,653)	47,453	(32,283)	(10,323)	4,847
Repurchase agreements and other similar secured borrowing	47,857	(3,456)	44,401	-	(44,401)	-
As at 31 December 2018	104,963	(13,109)	91,854	(32,283)	(54,724)	4,847

Company

	2019					
	Gross amounts of recognised financial instruments	**Impact of offset in the balance sheet**	**Net amounts of financial instruments presented in the balance sheet**	**Related amount not offset in the balance sheet**		**Net amount**
				Financial instruments	**Financial collateral**	
	$million	**$million**	**$million**	**$million**	**$million**	**$million**
Assets						
Derivative financial instruments	**65,166**	**(16,642)**	**48,524**	**(31,092)**	**(7,328)**	**10,104**
Reverse repurchase agreements and other similar secured lending	**61,487**	**(3,121)**	**58,366**	**-**	**(58,366)**	**-**
As at 31 December 2019	**126,653**	**(19,763)**	**106,890**	**(31,092)**	**(65,694)**	**10,104**
Liabilities						
Derivative financial instruments	**65,089**	**(16,642)**	**48,447**	**(31,092)**	**(8,367)**	**8,988**
Repurchase agreements and other similar secured borrowing	**48,886**	**(3,121)**	**45,765**	**-**	**(45,765)**	**-**
As at 31 December 2019	**113,975**	**(19,763)**	**94,212**	**(31,092)**	**(54,132)**	**8,988**

	2018					
	Gross amounts of recognised financial instruments	Impact of offset in the balance sheet	Net amounts of financial instruments presented in the balance sheet	Related amount not offset in the balance sheet		Net amount
				Financial instruments	Financial collateral	
	$million	$million	$million	$million	$million	$million
Assets						
Derivative financial instruments	56,583	(9,653)	46,930	(34,498)	(8,975)	3,457
Reverse repurchase agreements and other similar secured lending	59,365	(3,456)	55,909	-	(55,909)	-
As at 31 December 2018	115,948	(13,109)	102,839	(34,498)	(64,884)	3,457
Liabilities						
Derivative financial instruments	56,321	(9,653)	46,668	(34,498)	(9,903)	2,267
Repurchase agreements and other similar secured borrowing	46,027	(3,456)	42,571	-	(42,571)	-
As at 31 December 2018	102,348	(13,109)	89,239	(34,498)	(52,474)	2,267

Related amounts not offset in the balance sheet comprises:

- → Financial instruments not offset in the balance sheet but covered by an enforceable netting arrangement. This comprises master netting arrangements held against derivative financial instruments and excludes the effect of over-collateralisation
- → Financial instruments where may not have sought or been able to obtain a legal opinion evidencing enforceability of the right of offset
- → Financial collateral – This comprises cash collateral pledged and received for derivative financial instruments and collateral bought and sold for reverse repurchase and repurchase agreements respectively and excludes the effect of over-collateralisation

Financial liabilities designated at fair value through profit or loss (restated)

	2019 $million	2018 $million
Carrying balance aggregate fair value	56,660	57,474
Amount contractually obliged to repay at maturity	56,431	57,974
Difference between aggregate fair value and contractually obliged to repay at maturity	229	(500)
Cumulative change in fair value accredited to Credit Risk difference	42	476

The net fair value loss on financial liabilities designated at fair value through profit or loss was $1,463 million for the year (31 December 2018: net gain of $702 million). Further details of the Group's own credit adjustment (OCA) valuation technique is described later in this Note.

Valuation of financial instruments

The fair values of quoted financial assets and liabilities in active markets are based on current prices. A market is regarded as active if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. Wherever possible, fair values have been calculated using unadjusted quoted market prices in active markets for identical instruments held by the Group. Where quoted market prices are not available, or are unreliable because of poor liquidity, fair values have been determined using valuation techniques which, to the extent possible, use market observable inputs, but in some cases use non-market observable inputs. Valuation techniques used include discounted cash flow analysis and pricing models and, where appropriate, comparison with instruments that have characteristics similar to those of the instruments held by the Group.

The Valuation Control function is responsible for independent price verification, oversight of fair value and appropriate value adjustments and escalation of valuation issues. Independent price verification is the process of determining that the valuations incorporated into the financial statements are validated independent of the business area responsible for the product. The Valuation Control function has oversight of the fair value adjustments to ensure the financial instruments are priced to exit. These are key controls in ensuring the material accuracy of the valuations incorporated in the financial statements. The market data used for price verification may include data sourced from recent trade data involving external counterparties or third parties such as Bloomberg, Reuters, brokers and consensus pricing providers. Valuation Control performs a semi-annual review of the suitability of the market data used for price testing. Price verification uses independently sourced data that is deemed most representative of the market the instruments trade in. To determine the quality of the market data inputs, factors such as independence, relevance, reliability, availability of multiple data sources, and methodology employed by the pricing provider are taken into consideration.

The Valuation and Benchmarks Committee is the valuation governance forum consisting of representatives from Group Market Risk, Product Control, Valuation Control and the business, which meets monthly to discuss and approve the independent valuations of the inventory. For Principal Finance, the Investment Committee meeting is held on a quarterly basis to review investments and valuations.

Significant accounting estimates and judgements

The Group evaluates the significance of financial instruments and material accuracy of the valuations incorporated in the financial statements as they involve a high degree of judgement and estimation uncertainty in determining the carrying values of financial assets and liabilities at the balance sheet date.

→ Fair value of financial instruments is determined using valuation techniques and estimates (see below) which, to the extent possible, use market observable inputs, but in some cases use non-market observable inputs. Changes in the observability of significant valuation inputs can materially affect the fair values of financial instruments

→ When establishing the exit price of a financial instrument using a valuation technique, the Group estimates valuation adjustments in determining the fair value (page 192)

→ In determining the valuation of financial instruments, the Group makes judgements on the amounts reserved to cater for model and valuation risks, which cover both Level 2 and Level 3 assets, and the significant valuation judgements in respect of Level 3 instruments

→ Where the estimated measurement of fair value is more judgemental in respect of Level 3 assets, these are valued based on models that use a significant degree of non-market-based unobservable inputs

Valuation techniques

Refer to the fair value hierarchy explanation – Level 1, 2 and 3 (page 195)

→ **Financial instruments held at fair value**

- **Debt securities - asset backed securities:** Asset backed securities are valued based on external prices obtained from consensus pricing providers, broker quotes, recent trades, arrangers' quotes, etc. Where an observable price is available for a given security, it is classified as Level 2. In instances where third-party prices are not available or reliable, the security is classified as Level 3. The fair value of Level 3 securities is estimated using market standard cash flow models with input parameter assumptions which include prepayment speeds, default rates, discount margins derived from comparable securities with similar vintage, collateral type, and credit ratings
- **Debt securities in issue:** These debt securities relate to structured notes issued by the Group. Where independent market data is available through pricing vendors and broker sources, these positions are classified as Level 2. Where such liquid external prices are not available, valuations of these debt securities are implied using input parameters such as bond spreads and credit spreads, and are classified as Level 3. These input parameters are determined with reference to the same issuer (if available) or proxies from comparable issuers or assets
- **Derivatives:** Derivative products are classified as Level 2 if the valuation of the product is based upon input parameters which are observable from independent and reliable market data sources. Derivative products are classified as Level 3 if there are significant valuation input parameters which are unobservable in the market, such as products where the

performance is linked to more than one underlying variable. Examples are foreign exchange basket options, equity options based on the performance of two or more underlying indices and interest rate products with quanto payouts. In most cases these unobservable correlation parameters cannot be implied from the market, and methods such as historical analysis and comparison with historical levels or other benchmark data must be employed

- **Equity shares - private equity:** The majority of private equity unlisted investments are valued based on earning multiples - Price-to-Earnings (P/E) or enterprise value to earnings before income tax, depreciation and amortisation (EV/EBITDA) ratios - of comparable listed companies. The two primary inputs for the valuation of these investments are the actual or forecast earnings of the investee companies and earning multiples for the comparable listed companies. To ensure comparability between these unquoted investments and the comparable listed companies, appropriate adjustments are also applied (for example, liquidity and size) in the valuation. In circumstances where an investment does not have direct comparables or where the multiples for the comparable companies cannot be sourced from reliable external sources, alternative valuation techniques (for example, discounted cash flow models), which use predominantly unobservable inputs or Level 3 inputs, may be applied. Even though earning multiples for the comparable listed companies can be sourced from third-party sources (for example, Bloomberg), and those inputs can be deemed Level 2 inputs, all unlisted investments (excluding those where observable inputs are available, for example, over-the-counter prices) are classified as Level 3 on the basis that the valuation methods involve judgements ranging from determining comparable companies to discount rates where the discounted cash flow method is applied
- **Loans and advances:** These primarily include loans in the global syndications business which were not syndicated as of the balance sheet date and other financing transactions within Financial Markets and loans and advances including reverse repurchase agreements that do not have SPPI cash flows or are managed on a fair value basis. These loans are generally bilateral in nature and, where available, their valuation is based on observable clean sales transactions prices or market observable spreads. If observable credit spreads are not available, proxy spreads based on comparable loans with similar credit grade, sector and region, are used. Where observable credit spreads and market standard proxy methods are available, these loans are classified as Level 2. Where there are no recent transactions or comparable loans, these loans are classified as Level 3
- **Other debt securities:** These debt securities include convertible bonds, corporate bonds, credit and structured notes. Where quoted prices are available through pricing vendors, brokers or observable trading activities from liquid markets, these are classified as Level 2 and valued using such quotes. Where there are significant valuation inputs which are unobservable in the market, due to illiquid trading or the complexity of the product, these are classified as Level 3. The valuations of these debt securities are implied using input parameters such as bond spreads and credit spreads. These input parameters are determined with reference to the same issuer (if available) or proxied from comparable issuers or assets

→ **Financial instruments held at amortised cost**

The following sets out the Group’s basis for establishing fair values of amortised cost financial instruments and their classification between Levels 1, 2 and 3. As certain categories of financial instruments are not actively traded, there is a significant level of management judgement involved in calculating the fair values:

- **Cash and balances at central banks:** The fair value of cash and balances at central banks is their carrying amounts
- **Debt securities in issue, subordinated liabilities and other borrowed funds:** The aggregate fair values are calculated based on quoted market prices. For those notes where quoted market prices are not available, a discounted cash flow model is used based on a current market related yield curve appropriate for the remaining term to maturity
- **Deposits and borrowings:** The estimated fair value of deposits with no stated maturity is the amount repayable on demand. The estimated fair value of fixed interest-bearing deposits and other borrowings without quoted market prices is based on discounted cash flows using the prevailing market rates for debts with a similar Credit Risk and remaining maturity
- **Investment securities:** For investment securities that do not have directly observable market values, the Group utilises a number of valuation techniques to determine fair value. Where available, securities are valued using input proxies from the same or closely related underlying (for example, bond spreads from the same or closely related issuer) or input proxies from a different underlying (for example, a similar bond but using spreads for a particular sector and rating). Certain instruments cannot be proxies as set out above, and in such cases the positions are valued using non-market observable inputs. This includes those instruments held at amortised cost and predominantly relates to asset backed securities. The fair value for such instruments is usually proxies from internal assessments of the underlying cash flows
- **Loans and advances to banks and customers**: For loans and advances to banks, the fair value of floating rate placements and overnight deposits is their carrying amounts. The estimated fair value of fixed interest-bearing deposits is based on discounted cash flows using the prevailing money market rates for debts with a similar Credit Risk and remaining maturity. The Group’s loans and advances to customers’ portfolio is well diversified by geography and industry. Approximately a quarter of the portfolio re-prices within one month, and approximately half re-prices within 12 months. Loans and advances are presented net of provisions for impairment. The fair value of loans and advances to customers with a residual maturity of less than one year generally approximates the carrying value. The estimated fair value of loans and advances with a residual maturity of more than one year represents the discounted amount of future cash flows expected to be received, including assumptions relating to prepayment rates and Credit Risk. Expected cash flows are discounted at current market rates to determine fair value. The Group has a wide range of individual instruments within its loans and advances portfolio and as a result, providing quantification of the key assumptions used to value such instruments is impractical
- **Other assets:** Other assets comprise primarily of cash collateral and trades pending settlement. The carrying amount of these financial instruments is considered to be a reasonable approximation of fair value as they are either short-term in nature or re-price to current market rates frequently

Fair value adjustments

When establishing the exit price of a financial instrument using a valuation technique, the Group considers adjustments to the modelled price which market participants would make when pricing that instrument. The main valuation adjustments (described further below) in determining fair value for financial assets and financial liabilities are as follows:

	01.01.19 $million	Discontinued operations $million	Continued operations $million	Movement during the year $million	31.12.19 $million	01.01.18 $million	Movement during the year $million	31.12.18 $million
Bid-offer valuation adjustment	67	(7)	60	5	65	82	(15)	67
Credit valuation adjustment	196	(23)	173	(54)	119	229	(33)	196
Debit valuation adjustment	(143)	25	(118)	82	(36)	(66)	(77)	(143)
Model valuation adjustment	6	(1)	5	1	6	6	-	6
Funding valuation adjustment	60	(11)	49	(27)	22	79	(19)	60
Other fair value adjustments	59	(27)	32	11	43	65	(6)	59
Total	245	(44)	201	18	219	395	(150)	245
Income Deferrals								
Day 1 and other deferrals	100	(3)	97	(16)	81	83	17	100
Total	100	(3)	97	(16)	81	83	17	100

Note: Bracket represents an asset and credit to the income statement

- **Bid-offer valuation adjustment:** Where market parameters are marked on a mid-market basis in the revaluation systems, a bid-offer valuation adjustment is required to quantify the expected cost of neutralising the business' positions through dealing away in the market, thereby bringing long positions to bid and short positions to offer. The methodology to calculate the bid-offer adjustment for a derivative portfolio involves netting between long and short positions and the grouping of risk by strike and tenor based on the hedging strategy where long positions are marked to bid and short positions marked to offer in the systems
- **Credit valuation adjustment (CVA):** The Group accounts for CVA adjustment against the fair value of derivative products. CVA is an adjustment to the fair value of the transactions to reflect the possibility that our counterparties may default and we may not receive the full market value of the outstanding transactions. It represents an estimate of the adjustment a market participant would include when deriving a purchase price to acquire our exposures. CVA is calculated for each subsidiary, and within each entity for each counterparty to which the entity has exposure and takes account of any collateral we may hold. The Group calculates the CVA by using estimates of future positive exposure, market-implied probability of default (PD) and recovery rates. Where market-implied data is not readily available, we use market-based proxies to estimate the PD. Wrong-way risk occurs when the exposure to a counterparty is adversely correlated with the credit quality of that counterparty, and the Group has implemented a model to capture this impact for certain key wrong-way exposures. The Group also captures the uncertainties associated with wrong-way risk in its Prudential Valuation Adjustments
- **Debit valuation adjustment (DVA):** The Group calculates DVA adjustments on its derivative liabilities to reflect changes in its own credit standing. The Group's DVA adjustments will increase if its credit standing worsens and conversely, decrease if its credit standing improves. For derivative liabilities, a DVA adjustment is determined by applying the Group's probability of default to the Group's negative expected exposure against the counterparty. The Group's probability of default and loss expected in the event of default is derived based on bond and CDS spreads associated with the Group's issuances and market standard recovery levels. The expected exposure is modelled based on the simulation of the underlying risk factors over the life of the deal booked against the particular counterparty. This simulation methodology incorporates the collateral posted by the Group and the effects of master netting agreements
- **Model valuation adjustment:** Valuation models may have pricing deficiencies or limitations that require a valuation adjustment. These pricing deficiencies or limitations arise due to the choice, implementation and calibration of the pricing model
- **Funding valuation adjustment (FVA):** The Group makes FVA adjustments against derivative products. FVA reflects an estimate of the adjustment to its fair value that a market participant would make to incorporate funding costs that could arise in relation to the exposure. FVA is calculated by determining the net expected exposure at a counterparty level and then applying a funding rate to those exposures that reflect the market cost of funding. The FVA for collateralised derivatives is based on discounting the expected future cash flows at the relevant overnight indexed swap (OIS) rate after taking into consideration the terms of the underlying collateral agreement with the counterparty. The FVA for uncollateralised (including partially collateralised) derivatives incorporates the estimated present value of the market funding cost or benefit associated with funding these transactions
- **Other fair value adjustments:** The Group calculates the fair value on the interest rate callable products by calibrating to a set of market prices with differing maturity, expiry and strike of the trades
- **Day one and other deferrals:** In certain circumstances the initial fair value may be based on a valuation technique which may lead to the recognition of profits or losses at the time of initial recognition. However, these profits or losses can only be recognised when the valuation technique used is based primarily on observable market data. In those cases where the initially recognised fair value is based on a valuation model that uses inputs which are not observable in the market, the difference between the transaction price and the valuation model is not recognised immediately in the income statement. The difference is amortised to the income statement until the inputs become observable, or the transaction matures or is

terminated. Other deferrals primarily represent adjustments taken to reflect the specific terms and conditions of certain derivative contracts which affect the termination value at the measurement date

In addition, the Group calculates own credit adjustment (OCA) on its issued debt designated at fair value, including structured notes, in order to reflect changes in its own credit standing. The Group's OCA adjustments will increase if its credit standing worsens and conversely, decrease if its credit standing improves. The Group's OCA adjustments will reverse over time as its liabilities mature. For issued debt and structured notes designated at fair value, an OCA adjustment is determined by discounting the contractual cash flows using a yield curve adjusted for market observed secondary senior unsecured credit spreads. The OCA as at 31 December 2019 is $42 million, other comprehensive income loss $330 million (31 December 2018: $476 million, other comprehensive income gain $394 million).

Fair value hierarchy – financial instruments held at fair value

Assets and liabilities carried at fair value or for which fair values are disclosed have been classified into three levels according to the observability of the significant inputs used to determine the fair values. Changes in the observability of significant valuation inputs during the reporting period may result in a transfer of assets and liabilities within the fair value hierarchy. The Group recognises transfers between levels of the fair value hierarchy when there is a significant change in either its principal market or the level of observability of the inputs to the valuation techniques as at the end of the reporting period.

- **Level 1**: Fair value measurements are those derived from unadjusted quoted prices in active markets for identical assets or liabilities
- **Level 2**: Fair value measurements are those with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets and financial instruments valued using models where all significant inputs are observable
- **Level 3**: Fair value measurements are those where at least one input which could have a significant effect on the instrument's valuation is not based on observable market data

Notes to the financial statements continued

The following tables show the classification of financial instruments held at fair value into the valuation hierarchy:

Group

Assets	Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Financial instruments held at fair value through profit or loss				
Loans and advances to banks	-	3,025	365	3,390
Loans and advances to customers	-	3,316	156	3,472
Reverse repurchase agreements and other similar secured lending	-	57,430	-	57,430
Debt securities, alternative tier one and other eligible bills	1,965	11,875	170	14,010
Of which:				
Government bonds and treasury bills	1,816	7,081	-	8,897
Issued by corporates other than financial institutions[1]	5	3,578	170	3,753
Issued by financial institutions[1]	144	1,216	-	1,360
Equity shares	2,119	-	46	2,165
Derivative financial instruments	464	48,404	15	48,883
Of which:				
Foreign exchange	67	26,480	8	26,555
Interest rate	28	20,467	4	20,499
Credit	-	1,231	-	1,231
Equity and stock index options	-	14	3	17
Commodity	369	212	-	581
Investment securities				
Debt securities, alternative tier one and other eligible bills	44,696	32,436	38	77,170
Of which:				
Government bonds and treasury bills	30,687	12,410	33	43,130
Issued by corporates other than financial institutions[1]	10,010	10,531	5	20,546
Issued by financial institutions[1]	3,999	9,495	-	13,494
Equity shares	30	504	201	735
Total financial instruments as at 31 December 2019[2]	49,274	156,990	991	207,255
Liabilities				
Financial instruments held at fair value through profit or loss				
Deposits by banks	-	348	-	348
Customer accounts	-	4,181	40	4,221
Repurchase agreements and other similar secured borrowing	-	45,820	-	45,820
Debt securities in issue	-	5,913	358	6,271
Short positions	361	1,298	-	1,659
Derivative financial instruments	511	48,431	45	48,987
Of which:				
Foreign exchange	93	26,561	3	26,657
Interest rate	31	19,927	9	19,967
Credit	-	1,641	14	1,655
Equity and stock index options	-	110	19	129
Commodity	387	192	-	579
Total financial instruments as at 31 December 2019[2]	872	105,991	443	107,306

1 Includes covered bonds of $1,341 million, securities issued by Multilateral Development Banks/International Organisations of $3,736 million and State-owned agencies and development banks of $2137 million.

2 The above table does not include held for sale assets of $307 million and liabilities of $nil. These are reported in Note 20 together with their fair value hierarchy

There were no significant changes to valuation or levelling approaches in 2019.

There were no significant transfers of financial assets and liabilities measured at fair value between Level 1 and Level 2 during the year.

Assets	Level 1 $million	restated Level 2 $million	restated Level 3 $million	Total $million
Financial instruments held at fair value through profit or loss				
Loans and advances to banks	-	3,136[3]	632[3]	3,768
Loans and advances to customers	-	4,436	492	4,928
Reverse repurchase agreements and other similar secured lending	-	54,769	-	54,769
Debt securities, alternative tier one and other eligible bills	8,097	13,562	317	21,976
Of which:				
Government bonds and treasury bills	6,699	6,851	-	13,550
Issued by corporates other than financial institutions[1]	178	3,241	317	3,736
Issued by financial institutions[1]	1,220	3,470	-	4,690
Equity shares	1,364	-	205	1,569
Derivative financial instruments	907	46,071	12	46,990
Of which:				
Foreign exchange	149	32,297	7	32,453
Interest rate	4	12,551	5	12,560
Credit	-	252	-	252
Equity and stock index options	-	89	-	89
Commodity	754	882	-	1,636
Investment securities				
Debt securities, alternative tier one and other eligible bills	67,624	48,299	412	116,335
Of which:				
Government bonds and treasury bills	52,329	17,928	412	70,669
Issued by corporates other than financial institutions[1]	8,366	9,839	-	18,205
Issued by financial institutions[1]	6,929	20,532	-	27,461
Equity shares	29	4	230	263
Total financial instruments as at 31 December 2018[2]	78,021	170,277	2,300	250,598
Liabilities				
Financial instruments held at fair value through profit or loss				
Deposits by banks	-	314	4	318
Customer accounts	-	6,751	-	6,751
Repurchase agreements and other similar secured borrowing	-	43,000	-	43,000
Debt securities in issue	-	6,966	439	7,405
Short positions	1,999	1,227	-	3,226
Derivative financial instruments	809	46,579[3]	65[3]	47,453
Of which:				
Foreign exchange	137	32,890	7	33,034
Interest rate	15	12,932[3]	15[3]	12,962
Credit	-	273	8	281
Equity and stock index options	-	32	35	67
Commodity	657	452	-	1,109
Total financial instruments as at 31 December 2018[2]	2,808	104,837	508	108,153

1 Includes covered bonds of $5,466 million, securities issued by Multilateral Development Banks/International Organisations of $7,432 million and State-owned agencies and development banks of $7,549 million.

2 The above table does not include held for sale assets of $588 million and liabilities of $124 million. These are reported in Note 20 together with their fair value hierarchy

3 Prior year balances have been restated due to review of observability parameters. The impact was to reclassify $632 million from Level 2 loans and advances to banks to Level 3 and $340 million from Level 3 interest rate derivative financial instruments liabilities to Level 2

There were no significant transfers of financial assets and liabilities measured at fair value between Level 1 and Level 2 during the year.

Company

Assets	Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Financial instruments held at fair value through profit or loss				
Loans and advances to banks	-	2,706	365	3,071
Loans and advances to customers	-	1,763	121	1,884
Reverse repurchase agreements and other similar secured lending	-	57,041	-	57,041
Debt securities, alternative tier one and other eligible bills	1,545	9,077	99	10,721
Of which:				
Government bonds and treasury bills	1,400	4,140	-	5,540
Issued by corporates other than financial institutions[1]	1	3,299	99	3,399
Issued by financial institutions[1]	144	1,638	-	1,782
Equity shares	2,118	-	-	2,118
Derivative financial instruments	459	48,048	17	48,524
Of which:				
Foreign exchange	62	26,088	10	26,160
Interest rate	28	20,526	4	20,558
Credit	-	1,235	-	1,235
Equity and stock index options	-	6	3	9
Commodity	369	193	-	562
Investment securities				
Debt securities, alternative tier one and other eligible bills	37,952	22,618	591	61,161
Of which:				
Government bonds and treasury bills	28,906	6,326	28	35,260
Issued by corporates other than financial institutions[1]	6,022	8,496	-	14,518
Issued by financial institutions[1]	3,024	7,796	563	11,383
Equity shares	23	-	170	193
Total financial instruments as at 31 December 2019	42,097	141,253	1,363	184,713
Liabilities				
Financial instruments held at fair value through profit or loss				
Deposits by banks	-	349	-	349
Customer accounts	-	4,032	-	4,032
Repurchase agreements and other similar secured borrowing	-	45,587	-	45,587
Debt securities in issue	-	5,692	358	6,050
Short positions	343	1,054	-	1,397
Derivative financial instruments	508	47,893	46	48,447
Of which:				
Foreign exchange	90	26,450	14	26,554
Interest rate	31	19,626	9	19,666
Credit	-	1,528	14	1,542
Equity and stock index options	-	58	9	67
Commodity	387	231	-	618
Total financial instruments as at 31 December 2019	851	104,607	404	105,862

1 Includes covered bonds of $744 million, securities issued by Multilateral Development Banks/International Organisations of $2,552 million and State-owned agencies and development banks of $1546 million.

There were no significant changes to valuation or levelling approaches in 2019.

There were no significant transfers of financial assets and liabilities measured at fair value between Level 1 and Level 2 during the year.

Notes to the financial statements continued

Assets	Level 1 $million	restated Level 2 $million	restated Level 3 $million	Total $million
Financial instruments held at fair value through profit or loss				
Loans and advances to banks	-	2,789[3]	632[3]	3,421
Loans and advances to customers	-	1,778	31	1,809
Reverse repurchase agreements and other similar secured lending	-	54,413	-	54,413
Debt securities, alternative tier one and other eligible bills	3,730	6,728	190	10,648
Of which:				
Government bonds and treasury bills	2,887	3,638	-	6,525
Issued by corporates other than financial institutions[1]	174	926	190	1,290
Issued by financial institutions[1]	669	2,164	-	2,833
Equity shares	1,357	2	-	1,359
Derivative financial instruments	892	46,024	14	46,930
Of which:				
Foreign exchange	134	31,742	9	31,885
Interest rate	4	13,070	5	13,079
Credit	-	253	-	253
Equity and stock index options	-	88	-	88
Commodity	754	871	-	1,625
Investment securities				
Debt securities, alternative tier one and other eligible bills	35,274	19,151	28	54,453
Of which:				
Government bonds and treasury bills	25,563	5,029	28	30,620
Issued by corporates other than financial institutions[1]	6,410	5,160	-	11,570
Issued by financial institutions[1]	3,301	8,962	-	12,263
Equity shares	27	-	147	174
Total financial instruments as at 31 December 2018[2]	41,280	130,885	1,042	173,207
Liabilities				
Financial instruments held at fair value through profit or loss				
Deposits by banks	-	103	-	103
Customer accounts	-	2,313	-	2,313
Repurchase agreements and other similar secured borrowing	-	42,137	-	42,137
Debt securities in issue	-	4,710	326	5,036
Short positions	679	791	-	1,470
Derivative financial instruments	794	45,801[3]	73[3]	46,668
Of which:				
Foreign exchange	122	32,137	18	32,277
Interest rate	15	13,054[3]	15[3]	13,084
Credit	-	131	8	139
Equity and stock index options	-	30	32	62
Commodity	657	449	-	1,106
Total financial instruments as at 31 December 2018[2]	1,473	95,855	399	97,727

1 Includes covered bonds of $3,502 million, securities issued by Multilateral Development Banks/International Organisations of $6,050 million and State-owned agencies and development banks of $1,602 million.

2 The above table does not include held for sale assets of $4,900 million and liabilities of $47 million. These are reported in Note 20 together with their fair value hierarchy

3 Prior year balances have been restated due to review of observability parameters. The impact was to reclassify $632 million from Level 2 loans and advances to banks to Level 3 and $340 million from Level 3 interest rate derivative financial instruments liabilities to Level 2

There were no significant transfers of financial assets and liabilities measured at fair value between Level 1 and Level 2 during the year.

Fair value hierarchy - financial instruments measured at amortised cost

The following table shows the carrying amounts and incorporates the Group's estimate of fair values of those financial assets and liabilities not presented on the Group's balance sheet at fair value. These fair values may be different from the actual amount that will be received or paid on the settlement or maturity of the financial instrument. For certain instruments, the fair value may be determined using assumptions for which no observable prices are available.

Group

	Carrying value $million	Fair value Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Assets					
Cash and balances at central banks[1]	**43,926**	**-**	**43,926**	**-**	**43,926**
Loans and advances to banks	**36,948**	**-**	**36,876**	**-**	**36,876**
Of which - reverse repurchase agreements and other similar secured lending	**585**	**-**	**587**	**-**	**587**
Loans and advances to customers	**139,181**	**-**	**22,832**	**117,579**	**140,411**
Of which - reverse repurchase agreements and other similar secured lending	**1,339**	**-**	**1,341**	**-**	**1,341**
Investment securities[2]	**12,061**	**-**	**11,199**	**20**	**11,219**
Other assets[1]	**20,385**	**-**	**20,385**	**-**	**20,385**
Assets held for sale	**70**	**-**	**70**	**-**	**70**
As at 31 December 2019	**252,571**	**-**	**135,288**	**117,599**	**252,887**
Liabilities					
Deposits by banks	**24,126**	**-**	**24,142**	**-**	**24,142**
Customer accounts	**210,262**	**-**	**210,222**	**-**	**210,222**
Repurchase agreements and other similar secured borrowing	**178**	**-**	**178**	**-**	**178**
Debt securities in issue	**31,243**	**-**	**31,229**	**-**	**31,229**
Subordinated liabilities and other borrowed funds	**13,029**	**-**	**12,975**	**-**	**12,975**
Other liabilities[1]	**24,247**	**-**	**24,247**	**-**	**24,247**
As at 31 December 2019	**303,085**	**-**	**302,993**	**-**	**302,993**

	Carrying value $million	Fair value Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Assets					
Cash and balances at central banks[1]	57,511	-	57,511	-	57,511
Loans and advances to banks	61,411	-	61,354	-	61,354
Of which - reverse repurchase agreements and other similar secured lending	3,815	-	3,842	-	3,842
Loans and advances to customers	256,562	-	18,517	238,798	257,315
Of which - reverse repurchase agreements and other similar secured lending	3,151	-	2,409	744	3,153
Investment securities[2]	9,303	-	8,953	8	8,961
Other assets[1]	32,666	-	32,660	-	32,660
Assets held for sale	129	-	129	-	129
As at 31 December 2018	417,582	-	179,124	238,806	417,930
Liabilities					
Deposits by banks	29,715	-	29,715	-	29,715
Customer accounts	391,013	-	391,018	-	391,018
Repurchase agreements and other similar secured borrowing	1,401	-	1,401	-	1,401
Debt securities in issue	29,188	-	29,160	-	29,160
Subordinated liabilities and other borrowed funds	13,245	7,482	5,682	-	13,164
Other liabilities[1]	37,935	-	37,934	-	37,934
As at 31 December 2018	502,497	7,482	494,910	-	502,392

1 The carrying amount of these financial instruments is considered to be a reasonable approximation of fair value as they are short-term in nature or reprice to current market rates frequently

2 Includes Government bonds and Treasury bills of $5,693 million as at 31 December 2019 and $4,716 million as at 31 December 2018

Company

	Carrying value $million	Fair value Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Assets					
Cash and balances at central banks[1]	34,734	-	34,734	-	34,734
Loans and advances to banks	22,265	-	22,190	-	22,190
Of which - reverse repurchase agreements and other similar secured lending	146	-	146	-	146
Loans and advances to customers	76,845	-	10,970	65,997	76,967
Of which - reverse repurchase agreements and other similar secured lending	1,179	-	1,179	-	1,179
Investment securities[2]	10,487	-	9,646	-	9,646
Other assets[1]	17,750	-	17,750	-	17,750
Assets held for sale	70	-	70	-	70
As at 31 December 2019	162,151	-	95,360	65,997	161,357
Liabilities					
Deposits by banks	19,232	-	19,248	-	19,248
Customer accounts	124,032	-	124,045	-	124,045
Repurchase agreements and other similar secured borrowing	178	-	178	-	178
Debt securities in issue	30,748	-	30,733	-	30,733
Subordinated liabilities and other borrowed funds	12,489	-	12,415	-	12,415
Other liabilities[1]	18,634	-	18,634	-	18,634
As at 31 December 2019	205,313	-	205,253	-	205,253

	Carrying value $million	Fair value Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Assets					
Cash and balances at central banks[1]	44,749	-	44,749	-	44,749
Loans and advances to banks	23,732	-	23,732	-	23,732
Of which - reverse repurchase agreements and other similar secured lending	26	-	26	-	26
Loans and advances to customers	77,282	-	15,020	61,999	77,019
Of which - reverse repurchase agreements and other similar secured lending	1,470	-	1,470	-	1,470
Investment securities[2]	9,356	-	9,016	-	9,016
Other assets[1]	19,069	-	19,064	-	19,064
Assets held for sale	37,012	-	37,012	-	37,012
As at 31 December 2018	211,200	-	148,593	61,999	210,592
Liabilities					
Deposits by banks	22,434	-	22,435	-	22,435
Customer accounts	120,890	-	120,866	-	120,866
Repurchase agreements and other similar secured borrowing	434	-	434	-	434
Debt securities in issue	23,898	-	23,869	-	23,869
Subordinated liabilities and other borrowed funds	12,467	6,708	5,658	-	12,366
Other liabilities[1]	21,013	-	21,014	-	21,014
As at 31 December 2018	201,136	6,708	194,276	-	200,984

1 The carrying amount of these financial instruments is considered to be a reasonable approximation of fair value as they are short-term in nature or reprice to current market rates frequently

2 Includes Government bonds and Treasury bills of $5,209 million as at 31 December 2019 and $4,716 million as at 31 December 2018

Loans and advances to customers by client segment[1]

Group

	2019					
	Carrying value			Fair value		
	Stage 3 $million	Stage 1 and stage 2 $million	Total $million	Stage 3 $million	Stage 1 and stage 2 $million	Total $million
Corporate & Institutional Banking	**1,137**	**71,502**	**72,639**	**1,187**	**71,662**	**72,849**
Retail Banking	**301**	**33,455**	**33,756**	**311**	**34,449**	**34,760**
Commercial Banking	**384**	**13,377**	**13,761**	**415**	**13,359**	**13,774**
Private Banking	**219**	**8,864**	**9,083**	**219**	**8,865**	**9,084**
Central & other items	**-**	**9,942**	**9,942**	**-**	**9,944**	**9,944**
As at 31 December 2019	**2,041**	**137,140**	**139,181**	**2,132**	**138,279**	**140,411**

	2018					
	Carrying value			Fair value		
	Stage 3 $million	Stage 1 and stage 2 $million	Total $million	Stage 3 $million	Stage 1 and stage 2 $million	Total $million
Corporate & Institutional Banking	1,758	102,928	104,686	1,817	102,790	104,607
Retail Banking	436	100,799	101,235	447	101,810	102,257
Commercial Banking	540	26,223	26,763	652	25,989	26,641
Private Banking	135	13,481	13,616	134	13,442	13,576
Central & other items	-	10,262	10,262	-	10,234	10,234
As at 31 December 2018	2,869	253,693	256,562	3,050	254,265	257,315

1 Loans and advances includes reverse repurchase agreements and other similar secured lending: carrying value $1,339 million and fair value $1,341 million (31 December 2018: $3,151 million and $3,153 million respectively)

Loans and advances to customers by client segment[1]

Company

	2019					
	Carrying value			Fair value		
	Stage 3 $million	Stage 1 and stage 2 $million	Total $million	Stage 3 $million	Stage 1 and stage 2 $million	Total $million
Corporate & Institutional Banking	**948**	**52,806**	**53,754**	**1,000**	**52,843**	**53,843**
Retail Banking	**104**	**9,670**	**9,774**	**114**	**9,699**	**9,813**
Commercial Banking	**252**	**8,832**	**9,084**	**278**	**8,801**	**9,079**
Private Banking	**201**	**3,381**	**3,582**	**200**	**3,381**	**3,581**
Central & other items	**-**	**651**	**651**	**-**	**651**	**651**
As at 31 December 2019	**1,505**	**75,340**	**76,845**	**1,592**	**75,375**	**76,967**

	2018					
	Carrying value			Fair value		
	Stage 3 $million	Stage 1 and stage 2 $million	Total $million	Stage 3 $million	Stage 1 and stage 2 $million	Total $million
Corporate & Institutional Banking	1,435	51,713	53,148	1,437	51,622	53,059
Retail Banking	84	9,931	10,015	87	9,955	10,042
Commercial Banking	216	8,797	9,013	226	8,614	8,840
Private Banking	134	3,895	4,029	134	3,895	4,029
Central & other items	-	1,077	1,077	-	1,049	1,049
As at 31 December 2018	1,869	75,413	77,282	1,884	75,135	77,019

1 Loans and advances includes reverse repurchase agreements and other similar secured lending: carrying value $1,179 million and fair value $1,179 million (31 December 2018: $1,470 million and $1,470 million respectively)

Fair value of financial instruments

Level 3 Summary and significant unobservable inputs

The following table presents the Group's primary Level 3 financial instruments which are held at fair value. The table also presents the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs, the range of values for those inputs and the weighted average of those inputs:

Group

Instrument	Value as at 31 December 2019 Assets $million	Liabilities $million	Principal valuation technique	Significant unobservable inputs	Range[1]	Weighted average[2]
Loans and advances to banks	365	-	Discounted cash flows	Price/yield	1.0% - 15.6%	10.8%
Loans and advances to customers	156	-	Discounted cash flows	Price/yield	6.9%	6.9%
				Recovery rates	18.9% - 100%	82.5%
Debt securities, alternative tier one and other eligible securities	149	-	Discounted cash flows	Price/yield	6.9% - 18.7%	13.7%
Government bonds and treasury bills	38	-	Discounted cash flows	Price/yield	2.9% - 5.5%	3.7%
Asset backed securities	21	-	Discounted cash flows	Price/yield	1.4% - 3.2%	2.7%
Equity shares (includes private equity investments)[3]	247	-	Comparable pricing/yield	EV/EBITDA multiples	3.5x	3.5x
				P/E multiples	17.4x	17.4x
				P/B multiples	0.6x - 1.0x	0.9x
				P/S multiples	N/A	N/A
				Liquidity discount	10.0% - 20.0%	17.4%
			Discounted cash flows	Discount rates	8.4% - 16.2%	9.5%
Derivative financial instruments of which:						
Foreign exchange	8	3	Option pricing model	Foreign exchange option implied volatility	4.4% - 18.9%	16.7%
			Discounted cash flows	Foreign exchange curves	7.8% - 8.0%	7.9%
Interest rate	4	9	Discounted cash flows	Interest rate curves	5.3% - 19.6%	8.6%
			Option pricing model	Bond option implied volatility	17.0% - 28.0%	24.0%
Credit	-	14	Discounted cash flows	Credit spreads	1.0%	1.0%
Equity and stock index	3	19	Internal pricing model	Equity correlation	1.0% - 90.0%	58.0%
				Equity-FX correlation	(80.0%) - 70.0%	(29.0%)
Customer accounts	-	40	Discounted cash flows	Credit spreads	1.0% - 5.8%	2.7%
Debt securities in issue	-	358	Discounted cash flows	Credit spreads	0.1% - 0.7%	0.5%
			Internal pricing model	Equity correlation	1.0% - 90.0%	58.0%
				Equity-FX correlation	(80.0%) - 70.0%	(29.0%)
Total	991	443				

1 The ranges of values shown in the above table represent the highest and lowest levels used in the valuation of the Group's Level 3 financial instruments as at 31 December 2019. The ranges of values used are reflective of the underlying characteristics of these Level 3 financial instruments based on the market conditions at the balance sheet date. However, these ranges of values may not represent the uncertainty in fair value measurements of the Group's Level 3 financial instruments

2 Weighted average for non-derivative financial instruments has been calculated by weighting inputs by the relative fair value. Weighted average for derivatives has been provided by weighting inputs by the risk relevant to that variable. N/A has been entered for the cases where weighted average is not a meaningful indicator

3 The Group has an equity investment in the Series B preferred shares of Ripple Labs, Inc., which owns a digital currency (XRP) and is being carried at a fair value based on the shares' initial offering price

Instrument	Value as at 31 December 2018 Assets $million	Liabilities $million	Principal valuation technique	Significant unobservable inputs	restated Range[1]	restated Weighted average[2]
Loans and advances to banks	632	-	Comparable pricing/yield	Price/yield	1.0% - 28.5%[4]	17.7%[4]
Loans and advances to customers	492	-	Comparable pricing/yield	Price/yield	N/A	N/A
			Discounted cash flows	Recovery rates	25.5% - 100%	94.7%
Debt securities, alternative tier one and other eligible securities	73	-	Comparable pricing/yield	Price/yield	5.4% - 6.3%	5.6%
Government bonds and treasury bills	412	-	Discounted cash flows	Price/yield	2.9% - 38.1%	11.2%
Asset backed securities	244	-	Discounted cash flows	Price/yield	1.0% - 11.0%	3.4%
Equity shares (includes private equity investments)[3]	435	-	Comparable pricing/yield	EV/EBITDA multiples	9.1x	9.1x
				P/E multiples	14.5x	14.5x
				P/B multiples	0.6x - 1.0x	1.0x
				P/S multiples	N/A	N/A
				Liquidity discount	10.0% - 20.0%	14.7%
			Discounted cash flows	Discount rates	N/A	N/A
Derivative financial instruments of which:						
Foreign exchange	7	7	Option pricing model	Foreign exchange option implied volatility	5.2% - 5.4%	5.4%
			Discounted cash flows	Foreign exchange curves	(0.4%) - 3.7%	0.4%
Interest rate	5	15	Discounted cash flows	Interest rate curves	6.4% - 16.8%	8.3%
Credit	-	8	Discounted cash flows	Credit spreads	0.4% - 2.8%[4]	0.8%[4]
Equity	-	35	Internal pricing model	Equity correlation	4.5% - 89.5%	N/A
				Equity-FX correlation	(80.0%) - 80.0%	N/A
Deposits by banks	-	4	Discounted cash flows	Credit spreads	1.0%	1.0%
Debt securities in issue	-	439	Discounted cash flows	Credit spreads	0.4% - 4.0%	1.4%
			Internal pricing model	Equity correlation	4.5% - 89.5%	N/A
				Equity-FX correlation	(80.0%) - 80.0%	N/A
Total	2,300	508				

1 The ranges of values shown in the above table represent the highest and lowest levels used in the valuation of the Group's Level 3 financial instruments as at 31 December 2018. The ranges of values used are reflective of the underlying characteristics of these Level 3 financial instruments based on the market conditions at the balance sheet date. However, these ranges of values may not represent the uncertainty in fair value measurements of the Group's Level 3 financial instruments

2 Weighted average for non-derivative financial instruments has been calculated by weighting inputs by the relative fair value. Weighted average for derivatives has been provided by weighting inputs by the risk relevant to that variable. N/A has been entered for the cases where weighted average is not a meaningful indicator

3 The Group has an equity investment in the Series B preferred shares of Ripple Labs, Inc., which owns a digital currency (XRP) and is being carried at a fair value based on the shares' initial offering price

4 Prior year input ranges and weighted averages have been recalculated due to the prior year restatement of fair value hierarchy balances

Company

Instrument	Value as at 31 December 2019 Assets $million	Liabilities $million	Principal valuation technique	Significant unobservable inputs	Range[1]	Weighted average[2]
Loans and advances to banks	365	-	Discounted cash flows	Price/yield	1.0% - 15.6%	10.8%
Loans and advances to customers	121	-	Discounted cash flows	Price/yield	6.9%	6.9%
				Recovery rates	18.9% - 100%	76.3%
Debt securities, alternative tier one and other eligible securities	78	-	Discounted cash flows	Price/yield	6.9%	6.9%
Government bonds and treasury bills	28	-	Discounted cash flows	Price/yield	2.9% - 4.0%	3.4%
Asset backed securities	584	-	Discounted cash flows	Price/yield	1.4% - 3.6%	2.6%
Equity shares (includes private equity investments)[3]	170	-	Comparable pricing/yield	EV/EBITDA multiples	N/A	N/A
				P/E multiples	17.4x	17.4x
				P/B multiples	0.9x - 1.0x	0.9x
				P/S multiples	N/A	N/A
				Liquidity discount	20.0%	20.0%
			Discounted cash flows	Discount rates	10.0%	10.0%
Derivative financial instruments of which:						
Foreign exchange	10	14	Option Pricing Model	Foreign exchange option implied volatility	4.4% - 18.9%	16.7%
			Discounted cash flows	Foreign exchange curves	7.8% - 8.0%	7.9%
Interest rate	4	9	Discounted cash flows	Interest rate curves	5.3% - 19.6%	8.6%
			Option Pricing Model	Bond option implied volatility	17.0% - 28.0%	24.0%
Credit	-	14	Discounted cash flows	Credit spreads	1.0%	1.0%
Equity and stock index	3	9	Internal pricing model	Equity correlation	1.0% - 90.0%	58.0%
				Equity-FX correlation	(80.0%) - 70.0%	(29.0%)
Debt securities in issue	-	358	Discounted cash flows	Credit spreads	0.1%-0.7%	0.5%
			Internal pricing model	Equity correlation	1.0%-90.0%	58.0%
				Equity-FX correlation	(80.0%) - 70.0%	(29.0%)
Total	1,363	404				

1 The ranges of values shown in the above table represent the highest and lowest levels used in the valuation of the Group's Level 3 financial instruments as at 31 December 2019. The ranges of values used are reflective of the underlying characteristics of these Level 3 financial instruments based on the market conditions at the balance sheet date. However, these ranges of values may not represent the uncertainty in fair value measurements of the Group's Level 3 financial instruments

2 Weighted average for non-derivative financial instruments has been calculated by weighting inputs by the relative fair value. Weighted average for derivatives has been provided by weighting inputs by the risk relevant to that variable. N/A has been entered for the cases where weighted average is not a meaningful indicator

3 The Group has an equity investment in the Series B preferred shares of Ripple Labs, Inc., which owns a digital currency (XRP) and is being carried at a fair value based on the shares' initial offering price

Instrument	Value as at 31 December 2018 Assets $million	Liabilities $million	Principal valuation technique	Significant unobservable inputs	restated Range[1]	restated Weighted average[2]
Loans and advances to banks	632	-	Comparable pricing/yield	Price/yield	1.0% - 28.5%[4]	17.7%[4]
Loans and advances to customers	31	-	Comparable pricing/yield	Price/yield	N/A	N/A
			Discounted cash flows	Recovery rates	25.5% - 100%	94.7%
Debt securities, alternative tier one and other eligible securities	54	-	Comparable pricing/yield	Price/yield	5.4% - 6.3%	5.6%
Government bonds and treasury bills	28	-	Discounted cash flows	Price/yield	2.9% - 4.1%	3.5%
Asset backed securities	136	-	Discounted cash flows	Price/yield	2.7% - 4.2%	3.9%
Equity shares (includes private equity investments)	147	-	Comparable pricing/yield	EV/EBITDA multiples	N/A	N/A
				P/E multiples	14.5x	14.5x
				P/B multiples	1.0x	1.0x
				P/S multiples	N/A	N/A
				Liquidity discount	20.0%	20.0%
			Discounted cash flows	Discount rates	N/A	N/A
Derivative financial instruments of which:						
Foreign exchange	9	18	Option pricing model	Foreign exchange option implied volatility	N/A	N/A
			Discounted cash flows	Foreign exchange curves	(0.4%) - 3.7%	(0.4%)
Interest rate	5	15	Discounted cash flows	Interest rate curves	6.4% - 13.1%	8.2%
Credit	-	8	Discounted cash flows	Credit spreads	0.4% - 2.8%[4]	1.0%[4]
Equity	-	32	Internal pricing model	Equity correlation	4.5% - 89.5%	N/A
				Equity-FX correlation	(80.0%) - 80.0%	N/A
Debt securities in issue	-	326	Discounted cash flows	Credit spreads	0.4% - 0.7%	0.5%
			Internal pricing model	Equity correlation	4.5% - 89.5%	N/A
				Equity-FX correlation	(80.0%) - 80.0%	N/A
Total	1,042	399				

1 The ranges of values shown in the above table represent the highest and lowest levels used in the valuation of the Group's Level 3 financial instruments as at 31 December 2018. The ranges of values used are reflective of the underlying characteristics of these Level 3 financial instruments based on the market conditions at the balance sheet date. However, these ranges of values may not represent the uncertainty in fair value measurements of the Group's Level 3 financial instruments

2 Weighted average for non-derivative financial instruments has been calculated by weighting inputs by the relative fair value. Weighted average for derivatives has been provided by weighting inputs by the risk relevant to that variable. N/A has been entered for the cases where weighted average is not a meaningful indicator

3 The Group has an equity investment in the Series B preferred shares of Ripple Labs, Inc., which owns a digital currency (XRP) and is being carried at a fair value based on the shares' initial offering price

4 Prior year input ranges and weighted averages have been recalculated due to the prior year restatement of fair value hierarchy balances

The following section describes the significant unobservable inputs identified in the valuation technique table:

- → **Comparable price/yield** is a valuation methodology in which the price of a comparable instrument is used to estimate the fair value where there are no direct observable prices. Yield is the interest rate that is used to discount the future cash flows in a discounted cash flow model. Valuation using comparable instruments can be done by calculating an implied yield (or spread over a liquid benchmark) from the price of a comparable instrument, then adjusting that yield (or spread) to derive a value for the instrument. The adjustment should account for relevant differences in the financial instruments such as maturity and/or credit quality. Alternatively, a price-to-price basis can be assumed between the comparable instrument and the instrument being valued in order to establish the value of the instrument (for example, deriving a fair value for a junior unsecured bond from the price of a senior secured bond). An increase in price, in isolation, would result in a favourable movement in the fair value of the asset. An increase in yield, in isolation, would result in an unfavourable movement in the fair value of the asset
- → **Correlation** is the measure of how movement in one variable influences the movement in another variable. An equity correlation is the correlation between two equity instruments while an interest rate correlation refers to the correlation between two swap rates
- → **Credit spread** represents the additional yield that a market participant would demand for taking exposure to the Credit Risk of an instrument
- → **Discount rate** refers to the rate of return used to convert expected cash flows into present value
- → **Equity-FX correlation** is the correlation between equity instrument and foreign exchange instrument
- → **EV/EBITDA ratio multiples** is the ratio of Enterprise Value (EV) to Earnings Before Interest, Taxes, Depreciation and Amortisation (EBITDA). EV is the aggregate market capitalisation and debt minus the cash and cash equivalents. An increase in EV/EBITDA multiples in isolation, will result in a favourable movement in the fair value of the unlisted firm
- → **Foreign exchange curves** is the term structure for forward rates and swap rates between currency pairs over a specified period
- → **Interest rate curves** is the term structure of interest rates and measure of future interest rates at a particular point in time
- → **Liquidity discounts in the valuation of unlisted investments** primarily applied to the valuation of unlisted firms' investments to reflect the fact that these stocks are not actively traded. An increase in liquidity discount will result in unfavourable movement in the fair value of the unlisted firm
- → **Price-Earnings (P/E) multiples** is the ratio of the Market Capitalisation to the net income after tax. The multiples are determined from multiples of listed comparables, which are observable. An increase in P/E multiple will result in a favourable movement in the fair value of the unlisted firm
- → **Price-Book (P/B) multiple** is the ratio of the market value of equity to the book value of equity. An increase in P/B multiple will result in a favourable movement in the fair value of the unlisted firm
- → **Price-Sales (P/S) multiple** is the ratio of the market value of equity to sales. An increase in P/S multiple will result in a favourable movement in the fair value of the unlisted firm
- → **Recovery rates** are the expectation of the rate of return resulting from the liquidation of a particular loan. As the probability of default increases for a given instrument, the valuation of that instrument will increasingly reflect its expected recovery level assuming default. An increase in the recovery rate, in isolation, would result in a favourable movement in the fair value of the loan
- → **Volatility** represents an estimate of how much a particular instrument, parameter or index will change in value over time. Generally, the higher the volatility, the more expensive the option will be

Level 3 movement tables - financial assets

The table below analyses movements in Level 3 financial assets carried at fair value.

Group

Assets	Held at fair value through profit or loss					Investment securities		
	Loans and advances to banks $million	Loans and advances to customers $million	Debt securities, alternative tier one and other eligible $million	Equity shares $million	Derivative financial instruments $million	Debt securities, alternative tier one and other eligible bills $million	Equity shares $million	Total $million
As at 31 December 2018	632	492	317	205	12	412	230	2,300
Discontinued Operations	-	(397)	(127)	(74)	-	-	(63)	(661)
Continuing Operations	632	95	190	131	12	412	167	1,639
Total (losses)/gains recognised in income statement	(26)	(70)	(15)	(13)	(15)	2	-	(137)
Net trading income	(26)	(70)	(15)	(13)	(15)	-	-	(139)
Other operating income	-	-	-	-	-	2	-	2
Total (losses)/gains recognised in other comprehensive income (OCI)	-	-	-	-	-	(341)	11	(330)
Fair value through OCI reserve	-	-	-	-	-	(4)	19	15
Exchange difference	-	-	-	-	-	(337)	(8)	(345)
Purchases	826	101	21	5	107	156	27	1,243
Sales	-	(8)	(13)	(3)	(26)	(1)	(7)	(58)
Settlements	(1,067)	(48)	(3)	-	(5)	(34)	-	(1,157)
Transfers out[1]	-	(6)	(84)	(74)	(75)	(161)	-	(400)
Transfers in[2]	-	92	74	-	17	5	3	191
As at 31 December 2019	365	156	170	46	15	38	201	991
Total unrealised losses recognised in the income statement, within net trading income, relating to change in fair value of assets held as at 31 December 2019	-	-	(1)	-	(1)	(4)	-	(6)

1 Transfers out include debt securities alternative tier one and other eligible bills, derivative financial instruments, equity shares, loans and advances where the valuation parameters became observable during the year and were transferred to Level 1 and Level 2. Transfers out further relates to $74 million equity shares held for sale

2 Transfers in primarily relate to loans and advances, debt securities, alternative tier one and other eligible bills, derivative financial instruments and equity shares where the valuation parameters become unobservable during the year

Notes to the financial statements continued

The table below analyses movements in Level 3 financial assets carried at fair value.

	Held at fair value through profit or loss						Investment securities		
Assets	restated Loans and advances to banks $million	Loans and advances to customers $million	Reverse repurchase agreements and other similar secured lending $million	Debt securities, alternative tier one and other eligible bills $million	Equity shares $million	Derivative financial instruments $million	Debt securities, alternative tier one and other eligible bills $million	Equity shares $million	restated Total $million
As at 1 January 2018	71	717	-	431	834	40	318	150	2,561
Total gains/(losses) recognised in income statement	1[3]	13	-	(44)	(13)	(3)	22	-	(24)
Net trading income	1	13	-	(44)	(13)	(3)	-	-	(46)
Other operating income	-	-	-	-	-	-	22	-	22
Total (losses)/gains recognised in other comprehensive income (OCI)	-	-	-	-	-	-	(2)	40	38
Fair value through OCI reserve	-	-	-	-	-	-	-	41	41
Exchange difference	-	-	-	-	-	-	(2)	(1)	(3)
Purchases	532[3]	328	55	120	28	70	445	38	1,616
Sales	-	(254)	-	(215)	(168)	(40)	-	(5)	(682)
Settlements	(71)	(261)	-	(6)	-	(14)	(210)	-	(562)
Transfers out[1]	-[3]	(112)	(55)	(8)	(489)	(43)	(161)	(1)	(869)
Transfers in[2]	99	61	-	39	13	2	-	8	222
As at 31 December 2018	632	492	-	317	205	12	412	230	2,300
Total unrealised losses recognised in the income statement, within net trading income, relating to change in fair value of assets held as at 31 December 2018	-	(2)	-	-	(2)	(3)	-	-	(7)

1 Transfers out include debt securities, alternative tier one and other eligible bills, reverse repurchase agreements, derivative financial instruments, equity shares and loans and advances where the valuation parameters became observable during the year, and were transferred to Level 1 and Level 2. Transfers out further relates to $489 million equity shares held for sale

2 Transfers in primarily relate to loans and advances, debt securities, alternative tier one and other eligible bills, equity shares and derivative financial instruments where the valuation parameters become unobservable during the year

3 Prior year movements have been restated due to prior year restatement of fair value hierarchy balances

Level 3 movement tables - financial assets

The table below analyses movements in Level 3 financial assets carried at fair value.

Company

	Held at fair value through profit or loss				Investment securities		
Assets	**Loans and advances to banks $million**	**Loans and advances to customers $million**	**Debt securities, alternative tier one and other eligible bills $million**	**Derivative financial instruments $million**	**Debt securities, alternative tier one and other eligible bills $million**	**Equity shares $million**	**Total $million**
As at 1 January 2019	**632**	**31**	**190**	**14**	**28**	**147**	**1,042**
Total losses recognised in income statement - Net trading income	**(25)**	**(71)**	**(14)**	**(15)**	**-**	**-**	**(125)**
Total gains recognised in other comprehensive income (OCI)	**-**	**-**	**-**	**-**	**-**	**17**	**17**
Purchases	**826**	**100**	**1**	**108**	**678**	**9**	**1,722**
Sales	**-**	**(8)**	**(14)**	**(26)**	**-**	**(6)**	**(54)**
Settlements	**(1,068)**	**-**	**(3)**	**(5)**	**-**	**-**	**(1,076)**
Transfers out[1]	**-**	**(6)**	**(83)**	**(74)**	**(115)**	**-**	**(278)**
Transfers in[2]	**-**	**75**	**22**	**15**	**-**	**3**	**115**
As at 31 December 2019	**365**	**121**	**99**	**17**	**591**	**170**	**1,363**
Total unrealised losses recognised in the income statement, within net trading income, relating to change in fair value of assets held as at 31 December 2019	**-**	**-**	**-**	**(1)**	**-**	**-**	**(1)**

1 Transfers out include debt securities, alternative tier one and other eligible bills, derivative financial instruments and loans and advances where the valuation parameters became observable during the year and were transferred to Level 1 and Level 2

2 Transfers in primarily relate to loans and advances, debt securities, alternative tier one and other eligible bills, derivative financial instruments and equity shares where the valuation parameters become unobservable during the year

Assets	Held at fair value through profit or loss: restated Loans and advances to banks $million	Loans and advances to customers $million	Reverse repurchase agreements and other similar secured lending $million	Debt securities, alternative tier one and other eligible bills $million	Equity shares $million	Derivative financial instruments $million	Investment securities: Debt securities, alternative tier one and other eligible bills $million	Equity shares $million	restated Total $million
As at 1 January 2018	71	31	-	390	17	37	28	126	700
Total losses recognised in income statement - Net trading income	(1)[3]	-	-	(40)	(1)	(3)	-	-	(45)
Purchases	532[3]	268	55	-	-	70	161	27	1,113
Sales	-	(255)	-	(92)	-	(40)	-	(6)	(393)
Settlements	(71)	(61)	-	(2)	-	(13)	-	-	(147)
Transfers out[1]	-[3]	(7)	(55)	(104)	(16)	(39)	(161)	-	(382)
Transfers in[2]	101	55	-	38	-	2	-	-	196
As at 31 December 2018	632	31	-	190	-	14	28	147	1,042
Total unrealised losses recognised in the income statement, within net trading income, relating to change in fair value of assets held as at 31 December 2018	-	-	-	-	-	(3)	-	-	(3)

1 Transfers out include loans and advances, reverse repurchase agreements, debt securities, alternative tier one and other eligible bills, equity shares and derivative financial instruments where the valuation parameters became observable during the year, and were transferred to Level 1 and Level 2. Transfers out further relates to $16 million equity shares held for sale

2 Transfers in primarily relate to loans and advances, debt securities, alternative tier one and other eligible bills, equity shares and derivative financial instruments where the valuation parameters become unobservable during the year

3 Prior year movements have been restated due to the prior year restatement of fair value hierarchy balances

Level 3 movement tables - financial liabilities

Group

	2019 Deposits by banks $million	Customer accounts $million	Debt securities in issue $million	Derivative financial instruments $million	Total $million
As at 1 January 2019	4	-	439	65	508
Discontinued Operations	(4)	-	(112)	-	(116)
Continuing operations	-	-	327	65	392
Total (gains)/losses recognised in income statement - net trading income	-	(2)	22	45	65
Issues	-	41	540	424	1,005
Settlements	-	-	(410)	(561)	(971)
Transfers out[1]	-	-	(121)	(13)	(134)
Transfers in[2]	-	1	-	85	86
As at 31 December 2019	-	40	358	45	443
Total unrealised (gains)/losses recognised in the income statement, within net trading income, relating to change in fair value of liabilities held as at 31 December 2019	-	(2)	16	2	16

	2018			
	Deposits by banks $million	Debt securities in issue $million	restated Derivative financial instruments $million	restated Total $million
As at 1 January 2018	69	442	25	536
Total losses/(gains) recognised in income statement - net trading income	1	(22)	6[3]	(15)
Issues	4	167	25[3]	196
Settlements	(70)	(148)	(5)[3]	(223)
Transfers out[1]	-	-	(2)	(2)
Transfers in[2]	-	-	16	16
As at 31 December 2018	4	439	65	508
Total unrealised (gains)/losses recognised in the income statement, within net trading income, relating to change in fair value of liabilities held as at 31 December 2018	-	(5)	8	3

1 Transfers out during the year primarily relate to Debt securities in issue and derivative financial instruments where the valuation parameters became observable during the year and were transferred to Level 2 financial liabilities

2 Transfers in during the year primarily relate to derivative financial instruments and customer accounts where the valuation parameters become unobservable during the year

3 Prior year movements have been restated due to the prior year restatement of fair value hierarchy balances

Level 3 movement tables - financial liabilities

Company

	2019		
	Debt securities in issue $million	**Derivative financial instruments $million**	**Total $million**
As at 1 January 2019	**326**	**73**	**399**
Total losses recognised in income statement - net trading income	**23**	**52**	**75**
Issues	**540**	**425**	**965**
Settlements	**(410)**	**(504)**	**(914)**
Transfers out[1]	**(121)**	**(13)**	**(134)**
Transfers in[2]	**-**	**13**	**13**
As at 31 December 2019	**358**	**46**	**404**
Total unrealised losses recognised in the income statement, within net trading income, relating to change in fair value of liabilities held as at 31 December 2019	**16**	**2**	**18**

	2018		
	Debt securities in issue $million	restated Derivative financial instruments $million	restated Total $million
As at 1 January 2018	293	35	328
Total (gains)/losses recognised in income statement - net trading income	(12)	2[3]	(10)
Issues	167	22[3]	189
Settlements	(122)	(2)[3]	(124)
Transfers in[2]	-	16	16
As at 31 December 2018	326	73	399
Total unrealised (gains)/losses recognised in the income statement, within net trading income, relating to change in fair value of liabilities held as at 31 December 2018	(5)	7	2

1 Transfers out during the year primarily relate to Debt securities in issue and derivative financial instruments where the valuation parameters became observable during the year and were transferred to Level 2 financial liabilities

2 Transfers in during the year primarily relate to derivative financial instruments where the valuation parameters become unobservable during the year

3 Prior year movements have been restated due to the prior year restatement of fair value hierarchy balances

Sensitivities in respect of the fair values of Level 3 assets and liabilities

Sensitivity analysis is performed on products with significant unobservable inputs. The Group applies a 10 per cent increase or decrease on the values of these unobservable inputs, to generate a range of reasonably possible alternative valuations. The percentage shift is determined by statistical analyses performed on a set of reference prices based on the composition of our Level 3 assets. Favourable and unfavourable changes (which show the balance adjusted for input change) are determined on the basis of changes in the value of the instrument as a result of varying the levels of the unobservable parameters. This Level 3 sensitivity analysis assumes a one-way market move and does not consider offsets for hedges.

Group

	Held at fair value through profit or loss			Fair value through other comprehensive income		
	Net $million	Favourable changes $million	Unfavourable changes $million	Net $million	Favourable changes $million	Unfavourable changes $million
Financial instruments held at fair value						
Loans and advances	**521**	**532**	**505**	**-**	**-**	**-**
Asset backed securities	**21**	**21**	**21**	**-**	**-**	**-**
Debt securities, alternative tier one and other eligible bills	**149**	**155**	**143**	**38**	**38**	**38**
Equity shares	**46**	**54**	**38**	**201**	**221**	**181**
Derivative financial instruments	**(30)**	**(23)**	**(37)**	**-**	**-**	**-**
Customer accounts	**(40)**	**(40)**	**(40)**			
Debt securities in issue	**(358)**	**(327)**	**(389)**	**-**	**-**	**-**
As at 31 December 2019	**309**	**372**	**241**	**239**	**259**	**219**

	Held at fair value through profit or loss			Fair value through other comprehensive income		
	Net $million	Favourable changes $million	Unfavourable changes $million	Net $million	Favourable changes $million	Unfavourable changes $million
Financial instruments held at fair value						
Loans and advances	1,124[1]	1,149[1]	1,095[1]	-	-	-
Asset backed securities[2]	244	246	242	-	-	-
Debt securities, alternative tier one and other eligible bills	73	78	68	412	415	409
Equity shares	205	226	185	230	253	207
Derivative financial instruments	(53)[1]	(40)[1]	(66)[1]	-	-	-
Deposits by banks	(4)	(4)	(4)	-	-	-
Debt securities in issue	(439)	(417)	(461)	-	-	-
As at 31 December 2018	1,150	1,238	1,059	642	668	616

1 Prior year sensitivities have been recalculated due to the prior year restatement of fair value hierarchy balances

2 Asset backed securities are now presented separately. In the prior year these were included in debt securities and other eligible bills

The reasonably possible alternatives could have increased or decreased the fair values of financial instruments held at fair value through profit or loss and those classified as fair value through other comprehensive income by the amounts disclosed below.

Financial instruments	Fair value changes	2019 $million	2018 $million
Held at fair value through profit or loss	Possible increase	**63**	88
	Possible decrease	**(68)**	(91)
Fair value through other comprehensive income	Possible increase	**20**	26
	Possible decrease	**(20)**	(26)

Company

	Held at fair value through profit or loss			Fair value through other comprehensive income		
	Net exposure $million	Favourable changes $million	Unfavourable changes $million	Net exposure $million	Favourable changes $million	Unfavourable changes $million
Financial instruments held at fair value						
Loans and advances	**486**	**496**	**472**	**-**	**-**	**-**
Asset backed securities	**21**	**21**	**21**	**563**	**564**	**562**
Debt securities, alternative tier one and other eligible bills	**78**	**82**	**74**	**28**	**28**	**28**
Equity shares	**-**	**-**	**-**	**170**	**187**	**153**
Derivative financial instruments	**(29)**	**(23)**	**(35)**	**-**	**-**	**-**
Debt securities in issue	**(358)**	**(327)**	**(389)**	**-**	**-**	**-**
As at 31 December 2019	**198**	**249**	**143**	**761**	**779**	**743**

	Held at fair value through profit or loss			Fair value through other comprehensive income		
	Net exposure $million	Favourable changes $million	Unfavourable changes $million	Net exposure $million	Favourable changes $million	Unfavourable changes $million
Financial instruments held at fair value						
Loans and advances	663[1]	685[1]	641[1]	-	-	-
Asset backed securities[2]	136	137	135	-	-	-
Debt securities, alternative tier one and other eligible bills	54	57	51	28	28	28
Equity shares	-	-	-	147	162	132
Derivative financial instruments	(59)[1]	(46)[1]	(72)[1]	-	-	-
Debt securities in issue	(326)	(308)	(344)	-	-	-
As at 31 December 2018	468	525	411	175	190	160

1 Prior year sensitivities have been recalculated due to the prior year restatement of fair value hierarchy balances

2 Asset backed securities are now presented separately. In the prior year these were included in debt securities and other eligible bills

The reasonably possible alternatives could have increased or decreased the fair values of financial instruments held at fair value through profit or loss and those classified as fair value through other comprehensive income by the amounts disclosed below.

Financial instruments	Fair value changes	2019 $million	2018 $million
Held at fair value through profit or loss	Possible increase	**51**	57
	Possible decrease	**(55)**	(57)
Fair value through other comprehensive income	Possible increase	**18**	15
	Possible decrease	**(18)**	(15)

13. Derivative financial instruments

Accounting policy

Derivatives are financial instruments that derive their value in response to changes in interest rates, financial instrument prices, commodity prices, foreign exchange rates, Credit Risk and indices. Derivatives are categorised as trading unless they are designated as hedging instruments.

Derivatives are initially recognised and subsequently measured at fair value, with revaluation gains recognised in profit or loss (except where cash flow or net investment hedging has been achieved, in which case the effective portion of changes in fair value is recognised within other comprehensive income).

Fair values may be obtained from quoted market prices in active markets, recent market transactions, and valuation techniques, including discounted cash flow models and option pricing models, as appropriate. Where the initially recognised fair value of a derivative contract is based on a valuation model that uses inputs which are not observable in the market, it follows the same initial recognition accounting policy as for other financial assets and liabilities. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative.

Hedge accounting

Under certain conditions, the Group may designate a recognised asset or liability, a firm commitment, highly probable forecast transaction or net investment of a foreign operation into a formal hedge accounting relationship with a derivative that has been entered to manage interest rate and/or foreign exchange risks present in the hedged item. The Group continues to apply the hedge accounting requirements of IAS 39 Financial Instruments: Recognition and Measurement, and has early adopted the amendments to IAS 39 in respect of interest rate benchmark reform. There are three categories of hedge relationships:

- → Fair value hedge: to manage the fair value of interest rate and/or foreign currency risks of recognised assets or liabilities or firm commitments
- → Cash flow hedge: to manage interest rate or foreign exchange risk of highly probable future cash flows attributable to a recognised asset or liability, or a forecasted transaction
- → Net investment hedge: to manage the structural foreign exchange risk of an investment in a foreign operation

The Group formally documents, at the inception of the transaction, the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking hedge transactions. This is described in more detail in the categories of hedges below.

The Group assesses, both at hedge inception and on a quarterly basis, whether the derivatives designated in hedge relationships are highly effective in offsetting changes in fair values or cash flows of hedged items. Hedges are considered to be highly effective if all the following criteria are met:

- At inception of the hedge and throughout its life, the hedge is prospectively expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk
- Actual results of the hedge are within a range of 80 to 125 per cent. This is tested using regression analysis
- The regression co-efficient (R squared), which measures the correlation between the variables in the regression, is at least 80 per cent
- In the case of the hedge of a forecast transaction, the transaction must have a high probability of occurring and must present an exposure to variations in cash flows that are expected to affect reported profit or loss. The Group assumes that any interest rate benchmarks on which hedged item cash flows are based are not altered by IBOR reform

The Group discontinues hedge accounting in any of the following circumstances:

- The hedging instrument is not, or has ceased to be, highly effective as a hedge
- The hedging instrument has expired, is sold, terminated or exercised
- The hedged item matures, is sold or repaid
- The forecast transaction is no longer deemed highly probable
- The Group elects to discontinue hedge accounting voluntarily

For interest rate benchmarks deemed in scope of IBOR reform, if the actual result of a hedge is outside the 80 to 125 per cent range, but it can be demonstrated that this is caused by interest rate benchmark uncertainty and the hedge passes the prospective assessment, then the Group will not de-designate the hedge relationship.

Fair value hedge

Changes in the fair value of derivatives that are designated and qualify as fair value hedging instruments are recorded in net trading income, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortised to the income statement over the remaining term to maturity of the hedged item. If the hedged item is sold or repaid, the unamortised fair value adjustment is recognised immediately in the income statement. For financial assets classified as fair value through other comprehensive income, the hedge accounting adjustment is included in other comprehensive income.

Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedging instruments are initially recognised in other comprehensive income, accumulating in the cash flow hedge reserve within equity. These amounts are subsequently recycled to the income statement in the periods when the hedged item affects profit or loss. Both the derivative fair value movement and any recycled amount are recorded in the 'Cashflow hedges' line item in other comprehensive income.

The Group assesses hedge effectiveness using the hypothetical derivative method, which creates a derivative instrument to serve as a proxy for the hedged transaction. The terms of the hypothetical derivative match the critical terms of the hedged item and it has a fair value of zero at inception. The hypothetical derivative and the actual derivative are regressed to establish the statistical significance of the hedge relationship. Any ineffective portion of the gain or loss on the hedging instrument is recognised in the net trading income immediately.

For interest rate benchmarks deemed in scope of IBOR reform, the Group will retain the cumulative gain or loss in the cash flow hedge reserve for designated cash flow hedges even though there is uncertainty arising from these reforms with respect to the timing and amount of the cash flows of the hedged items. Should the Group consider the hedged future cash flows are no longer expected to occur due to reasons other than IBOR reform, the cumulative gain or loss will be immediately reclassified to profit or loss.

Net investment hedge

Hedges of net investments are accounted for in a similar manner to cash flow hedges, with gains and losses arising on the effective portion of the hedges recorded in the line 'Exchange differences on translation of foreign operations' in other comprehensive income, accumulating in the translation reserve within equity. These amounts remain in equity until the net investment is disposed of. The ineffective portion of the hedges is recognised in the net trading income immediately.

Notes to the financial statements continued

The tables below analyse the notional principal amounts and the positive and negative fair values of derivative financial instruments. Notional principal amounts are the amounts of principal underlying the contract at the reporting date.

Derivatives

Group

	2019			2018		
	Notional principal amounts $million	Assets $million	Liabilities $million	Notional principal amounts $million	Assets $million	Liabilities $million
Foreign exchange derivative contracts:						
Forward foreign exchange contracts	2,019,760	17,059	15,903	2,080,344	16,460	17,266
Currency swaps and options	1,509,682	9,496	10,754	849,795	15,993	15,768
	3,529,442	26,555	26,657	2,930,139	32,453	33,034
Interest rate derivative contracts:						
Swaps	3,771,235	35,149	34,087	3,704,836	20,693	20,918
Forward rate agreements and options	280,439	1,813	2,361	489,943	1,399	1,586
Exchange traded futures and options	357,291	179	161	775,518	121	111
	4,408,965	37,141	36,609	4,970,297	22,213	22,615
Credit derivative contracts	79,008	1,231	1,655	39,343	252	281
Equity and stock index options	3,045	17	129	2,960	89	67
Commodity derivative contracts	77,969	581	579	69,601	1,636	1,109
Gross total derivatives	8,098,429	65,525	65,629	8,012,340	56,643	57,106
Offset	-	(16,642)	(16,642)	-	(9,653)	(9,653)
Total derivatives	8,098,429	48,883	48,987	8,012,340	46,990	47,453

Company

	2019			2018		
	Notional principal amounts $million	Assets $million	Liabilities $million	Notional principal amounts $million	Assets $million	Liabilities $million
Foreign exchange derivative contracts:						
Forward foreign exchange contracts	2,479,960	16,145	16,398	2,252,664	16,488	17,117
Currency swaps and options	759,370	10,015	10,156	789,405	15,397	15,160
	3,239,330	26,160	26,554	3,042,069	31,885	32,277
Interest rate derivative contracts:						
Swaps	4,059,779	34,820	34,104	3,648,610	20,976	21,062
Forward rate agreements and options	282,926	2,201	2,043	481,647	1,635	1,564
Exchange traded futures and options	357,291	179	161	774,044	121	111
	4,699,996	37,200	36,308	4,904,301	22,732	22,737
Credit derivative contracts	79,747	1,235	1,542	38,273	253	139
Equity and stock index options	2,796	9	67	2,947	88	62
Commodity derivative contracts	79,109	562	618	69,555	1,625	1,106
Gross total derivatives	8,100,978	65,166	65,089	8,057,145	56,583	56,321
Offset	-	(16,642)	(16,642)	-	(9,653)	(9,653)
Total derivatives	8,100,978	48,524	48,447	8,057,145	46,930	46,668

The Group limits exposure to credit losses in the event of default by entering into master netting agreements with certain market counterparties. As required by IAS 32, exposures are only presented net in these accounts where they are subject to legal right of offset and intended to be settled net in the ordinary course of business.

The Group may enter into economic hedges that do not qualify for IAS 39 hedge accounting treatment, including derivative such as interest rate swaps, interest rate futures and cross currency swaps to manage interest rate and currency risks of the Group. These derivatives are measured at fair value, with fair value changes recognised in net trading income: refer to Market Risk (page 89).

The Derivatives and Hedging sections of the Risk review and Capital review (page 77) explain the Group's risk management of derivative contracts and application of hedging.

Derivatives held for hedging

The Group enters into derivative contracts for the purpose of hedging interest rate, currency and structural foreign exchange risk inherent in assets, liabilities and forecast transactions. The table below summarises the notional principal amounts and carrying values of derivatives designated in hedge accounting relationships at the reporting date.

Group

	2019			2018		
	Notional principal amounts $million	Assets $million	Liabilities $million	Notional principal amounts $million	Assets $million	Liabilities $million
Derivatives designated as fair value hedges:						
Interest rate swaps	45,131	478	414	52,735	297	264
Currency swaps	529	16	109	2,099	30	124
	45,660	494	523	54,834	327	388
Derivatives designated as cash flow hedges:						
Interest rate swaps	1,277	2	16	10,733	59	67
Forward foreign exchange contracts	289	6	20	184	-	18
Currency swaps	878	5	1	2,701	57	22
	2,444	13	37	13,618	116	107
Derivatives designated as net investment hedges:						
Forward foreign exchange contracts	701	14	-	5,200	61	7
Total derivatives held for hedging	48,805	521	560	73,652	504	502

Company

	2019			2018		
	Notional principal amounts $million	Assets $million	Liabilities $million	Notional principal amounts $million	Assets $million	Liabilities $million
Derivatives designated as fair value hedges:						
Interest rate swaps	43,194	477	366	43,483	282	216
Currency swaps	437	13	109	552	19	119
	43,631	490	475	44,035	301	335
Derivatives designated as cash flow hedges:						
Interest rate swaps	277	-	7	3,467	5	46
Forward foreign exchange contracts	119	6	-	184	-	18
Currency swaps	878	5	1	29	-	1
	1,274	11	8	3,680	5	65
Derivatives designated as net investment hedges:						
Forward foreign exchange contracts	701	14	-	5,200	61	7
Total derivatives held for hedging	45,606	515	483	52,915	367	407

Fair value hedges

The Group issues various long-term fixed rate debt issuances that are measured at amortised cost, including some denominated in foreign currency, such as unsecured senior and subordinated debt (see Notes 21 and 26). The Group also holds various fixed rate debt securities such as government and corporate bonds, including some denominated in foreign currency (see Note 12). These assets and liabilities held are exposed to changes in fair value due to movements in market interest and foreign currency rates.

The Group uses interest rate swaps to exchange fixed rates for floating rates on funding to match floating rates received on assets or exchange fixed rates on assets to match floating rates paid on funding. The Group further uses cross currency swaps to match the currency of the issued debt or held asset with that of the entity's functional currency.

Hedge ineffectiveness from fair value hedges is driven by cross currency basis risk. The amortisation of fair value hedge adjustments for hedged items no longer designated is recognised in net trading income. In future periods hedge relationships linked to an interest rate benchmark deemed in scope of benchmark reform may experience ineffectiveness due to market participants' expectations for when the change from the existing IBOR benchmark to an alternative risk-free rate will occur, since the transition may occur at different times for the hedged item and hedging instrument.

As at 31 December 2019 the Group held the following interest rate and cross currency swaps as hedging instruments in fair value hedges of interest and currency risk.

Hedging instruments and ineffectiveness

Group

	2019				
		Carrying amount			
Interest rate and currency risk[1]	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Ineffectiveness gain/(loss) recognised in net trading income $million
Interest rate swaps – issued notes	8,379	434	4	160	(1)
Cross currency swaps – subordinated notes issued	338	-	109	7	1
Interest rate swaps – loans and advances	445	-	10	(8)	-
Interest rate swaps – debt securities and other eligible bills	36,307	44	400	(479)	11
Cross currency swaps – debt securities and other eligible bills	191	16	-	(6)	(1)
Total as at 31 December 2019	45,660	494	523	(326)	10

1 Interest rate swaps are designated in hedges of the fair value of interest rate risk attributable to the hedged item. Cross currency swaps are used to hedge both interest rate and currency risks. All of the hedging instruments are derivatives, with changes in fair value including hedge ineffectiveness recorded within net trading income

	2018				
		Carrying amount			
Interest rate and currency risk[1]	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Ineffectiveness gain/(loss) recognised in net trading income $million
Interest rate swaps – issued notes	8,172	261	-	(12)	2
Cross currency swaps – subordinated notes issued	486	-	120	(43)	-
Interest rate swaps – loans and advances	1,757	4	8	(6)	-
Interest rate swaps – debt securities and other eligible bills	42,806	32	256	(164)	(3)
Cross currency swaps – debt securities and other eligible bills	1,613	30	4	14	1
Total as at 31 December 2018	54,834	327	388	(211)	-

1 Interest rate swaps are designated in hedges of the fair value of interest rate risk attributable to the hedged item. Cross currency swaps are used to hedge both interest rate and currency risks. All of the hedging instruments are derivatives, with changes in fair value including hedge ineffectiveness recorded within net trading income

Hedged items in fair value hedges

	2019					
	Carrying amount		Accumulated amount of fair value hedge adjustments included in the carrying amount			
	Asset $million	Liability $million	Asset $million	Liability $million	Change in fair value used for calculating hedge ineffectiveness $million	Cumulative balance of fair value adjustments from de-designated hedge relationships[1] $million
Issued notes	-	8,672	-	(251)	(166)	3
Debt securities and other eligible bills	36,932	-	268	-	495	(98)
Loans and advances to customers	454	-	9	-	8	(1)
Total as at 31 December 2019	37,386	8,672	277	(251)	337	(96)

1 This represents a credit / (debit) to the balance sheet value

	2018					
	Carrying amount		Accumulated amount of fair value hedge adjustments included in the carrying amount			
	Asset $million	Liability $million	Asset $million	Liability $million	Change in fair value used for calculating hedge ineffectiveness $million	Cumulative balance of fair value adjustments from de-designated hedge relationships[1] $million
Issued notes	-	8,812	-	(89)	57	-
Debt securities and other eligible bills	44,273	-	131	-	149	37
Loans and advances to customers	1,759	-	3	-	6	7
Total as at 31 December 2018	46,032	8,812	134	(89)	212	44

1 This represents a credit / (debit) to the balance sheet value

Income statement impact of fair value hedges

	2019 Income/(expense) $million	2018 Income/(expense) $million
Change in fair value of hedging instruments	(326)	(211)
Change in fair value of hedged risks attributable to hedged items	337	212
Net ineffectiveness gain to net trading income	11	1
Amortisation gain/(loss) to net interest income	(7)	16

Hedging instruments and ineffectiveness

Company

	2019				
		Carrying amount			
Interest rate and currency risk[1]	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Ineffectiveness gain/(loss) recognised in net trading income $million
Interest rate swaps – issued notes	8,379	434	4	160	(1)
Cross currency swaps – subordinated notes issued	338	-	109	7	1
Interest rate swaps – loans and advances	445	-	10	(8)	-
Interest rate swaps – debt securities and other eligible bills	34,370	43	352	(437)	11
Cross currency swaps – debt securities and other eligible bills	99	13	-	(6)	(1)
Total as at 31 December 2019	43,631	490	475	(284)	10

1 Interest rate swaps are designated in hedges of the fair value of interest rate risk attributable to the hedged item. Cross currency swaps are used to hedge both interest rate and currency risks. All of the hedging instruments are derivatives, with changes in fair value including hedge ineffectiveness recorded within net trading income

	2018				
		Carrying amount			
Interest rate and currency risk[1]	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Ineffectiveness gain/(loss) recognised in net trading income $million
Interest rate swaps – issued notes	7,422	255	-	3	2
Cross currency swaps – subordinated notes issued	456	-	119	(42)	-
Interest rate swaps – loans and advances	890	1	4	1	-
Interest rate swaps – debt securities and other eligible bills	35,171	26	212	(137)	(2)
Cross currency swaps – debt securities and other eligible bills	96	19	-	8	1
Total as at 31 December 2018	44,035	301	335	(167)	1

1 Interest rate swaps are designated in hedges of the fair value of interest rate risk attributable to the hedged item. Cross currency swaps are used to hedge both interest rate and currency risks. All of the hedging instruments are derivatives, with changes in fair value including hedge ineffectiveness recorded within net trading income

Hedged Items in fair value hedges

	2019					
	Carrying Amount		Accumulated amount of fair value hedge adjustments included in the carrying amount		Change in fair value used for calculating hedge ineffectiveness	Cumulative balance of fair value adjustments from de-designated hedge relationships[1]
	Asset $million	Liability $million	Asset $million	Liability $million	$million	$million
Issued notes	-	8,672	-	(251)	(166)	3
Debt securities and other eligible bills	34,868	-	230	-	454	(74)
Loans and advances to customers	454	-	9	-	8	(1)
Total as at 31 December 2019	35,322	8,672	239	(251)	296	(72)

1 This represents a credit/(debit) to the balance sheet value

	2018					
	Carrying Amount		Accumulated amount of fair value hedge adjustments included in the carrying amount		Change in fair value used for calculating hedge ineffectiveness	Cumulative balance of fair value adjustments from de-designated hedge relationships[1]
	Asset $million	Liability $million	Asset $million	Liability $million	$million	$million
Issued notes	-	7,977	-	(84)	41	-
Debt securities and other eligible bills	35,127	-	107	-	127	30
Loans and advances to customers	893	-	3	-	(1)	6
Total as at 31 December 2018	36,020	7,977	110	(84)	167	36

1 This represents a credit/(debit) to the balance sheet value

Income statement impact of fair value hedges

	2019 Income/(expense) $million	2018 Income/(expense) $million
Change in fair value of hedging instruments	**(284)**	(167)
Change in fair value of hedged risks attributable to hedged items	**296**	167
Net ineffectiveness gain to net trading income	**12**	-
Amortisation gain/(loss) to net interest income	**7**	(11)

Cash flow hedges

The Group has exposure to market movements in future interest cash flows on portfolios of customer accounts, debt securities and loans and advances to customers. The amounts and timing of future cash flows, representing both principal and interest flows, are projected on the basis of contractual terms and other relevant factors, including estimates of prepayments and defaults.

The hedging strategy of the Group involves using interest rate swaps to manage the variability in future cash flows on assets and liabilities that have floating rates of interest by exchanging the floating rates for fixed rates. It also uses foreign exchange contracts and currency swaps to manage the variability in future exchange rates on its assets and liabilities and costs in foreign currencies. This is done on both a micro basis whereby a single interest rate or cross currency swap is designated in a separate relationship with a single hedged item (such as a floating rate loan to a customer), and on a portfolio basis whereby each hedging instrument is designated against a group of hedged items that share the same risk (such as a group of customer accounts.)

The hedged risk is determined as the variability of future cash flows arising from changes in the designated benchmark interest rate, e.g. one-month or three-month LIBOR.

Hedging instruments and ineffectiveness

Group

	2019						
		Carrying amount					
	Notional $million	**Asset $million**	**Liability $million**	**Change in fair value used to calculate hedge ineffectiveness $million**	**Gain recognised in OCI $million**	**Ineffectiveness gain/(loss) recognised in net trading income $million**	**Amount reclassified from reserves to income $million**
Interest rate risk							
Interest rate swaps	**1,277**	**2**	**16**	**21**	**21**	**-**	**-**
Currency risk							
Forward foreign exchange contracts	**289**	**6**	**20**	**6**	**6**	**-**	**-**
Cross currency swaps	**878**	**5**	**1**	**26**	**26**	**-**	**-**
Total as at 31 December 2019	**2,444**	**13**	**37**	**53**	**53**	**-**	**-**

	2018						
		Carrying amount					
	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Gain recognised in OCI $million	Ineffectiveness gain/(loss) recognised in net trading income $million	Amount reclassified from reserves to income $million
Interest rate risk							
Interest rate swaps	10,733	59	67	17	17	-	(1)
Currency risk							
Forward foreign exchange contracts	184	-	18	9	9	-	-
Cross currency swaps	2,701	57	22	57	57	-	8
Total as at 31 December 2018	13,618	116	107	83	83	-	7

Hedged items in cash flow hedges

	2019		
	Change in fair value used for calculating hedge ineffectiveness $million	**Cash flow hedge reserve $million**	**Cumulative balance in the cash flow hedge reserve from de-designated hedge relationships $million**
Customer accounts	**(14)**	**(6)**	**-**
Debt securities and other eligible bills	**3**	**-**	**-**
Loans and advances to customers	**(32)**	**(10)**	**(1)**
Intragroup lending currency hedge	**(9)**	**(6)**	**-**
Total as at 31 December 2019	**(52)**	**(22)**	**(1)**

	2018		
	Change in fair value used for calculating hedge ineffectiveness $million	Cash flow hedge reserve $million	Cumulative balance in the cash flow hedge reserve from de-designated hedge relationships $million
Customer accounts	(66)	18	33
Debt securities and other eligible bills	(9)	(3)	(1)
Loans and advances to customers	(9)	(39)	(12)
Total as at 31 December 2018	(84)	(24)	20

Impact of cash flow hedges on profit and loss and other comprehensive income

	2019 Income/(expense) $million	2018 Income/(expense) $million
Cash flow hedge reserve balance as at 1 January	**(27)**	(46)
Discontinued operations	**(12)**	-
Gains recognised in other comprehensive income on effective portion of changes in fair value of hedging instruments	**42**	17
Gains transferred to net trading income on hedging instruments no longer in a hedging relationship	**-**	8
Gain/(loss) reclassified to income statement when hedged item affected net profit	**8**	(1)
Taxation credit relating to cash flow hedges	**(22)**	(5)
Cash flow hedge reserve balance as at 31 December	**(11)**	(27)

Hedging instruments and ineffectiveness

Company

	2019						
		Carrying amount					
	Notional $million	**Asset $million**	**Liability $million**	**Change in fair value used to calculate hedge ineffectiveness $million**	**Gain/(loss) recognised in OCI $million**	**Ineffectiveness gain/(loss) recognised in net trading income $million**	**Amount reclassified from reserves to income $million**
Interest rate risk							
Interest rate swaps	**277**	**-**	**7**	**(11)**	**(11)**	**-**	**-**
Currency risk							
Forward foreign exchange contracts	**119**	**6**	**-**	**9**	**9**	**-**	**-**
Cross currency swaps	**878**	**5**	**1**	**26**	**26**	**-**	**-**
Total as at 31 December 2019	**1,274**	**11**	**8**	**24**	**24**	**-**	**-**

	2018						
		Carrying amount					
	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Gain/(loss) recognised in OCI $million	Ineffectiveness gain/(loss) recognised in net trading income $million	Amount reclassified from reserves to income $million
Interest rate risk							
Interest rate swaps	3,467	5	46	3	3	-	(5)
Currency risk							
Forward foreign exchange contracts	184	-	18	9	9	-	-
Cross currency swaps	29	-	1	-	-	-	-
Total as at 31 December 2018	3,680	5	65	12	12	-	(5)

Hedged items in cash flow hedges

	2019		
	Change in value used for calculating hedge ineffectiveness	Cash flow hedge reserve	Cumulative balance in the cash flow hedge reserve from de-designated hedge relationships
	$million	$million	$million
Customer accounts	(14)	(6)	-
Debt securities and other eligible bills	-	1	-
Loans and advances to customers	-	-	(1)
Intragroup lending currency hedge	(9)	(6)	-
Total as at 31 December 2019	(23)	(11)	(1)

	2018		
	Change in value used for calculating hedge ineffectiveness	Cash flow hedge reserve	Cumulative balance in the cash flow hedge reserve from de-designated hedge relationships
	$million	$million	$million
Customer accounts	(4)	4	-
Debt securities and other eligible bills	(9)	(2)	-
Loans and advances to customers	1	(43)	(3)
Total as at 31 December 2018	(12)	(41)	(3)

Impact of cash flow hedges on profit and loss and other comprehensive income

	2019 Income/(expense)	2018 Income/(expense)
	$million	$million
Cash flow hedge reserve balance as at 1 January	(42)	(43)
Gain/(loss) recognised in other comprehensive income on effective portion of changes in fair value of hedging instruments	33	6
Gain/(loss) reclassified to income statement when hedged item affected net profit	2	(5)
Taxation credit/(charge) relating to cash flow hedges	(20)	-
Cash flow hedge reserve balance as at 31 December	(27)	(42)

Net investment hedges

Foreign currency exposures arise from investments in subsidiaries that have a different functional currency from that of the presentation currency of the Group. This risk arises from the fluctuation in spot exchange rates between the functional currency of the subsidiaries and the Group's presentation currency, which causes the value of the investment to vary.

The Group's policy is to hedge these exposures only when not doing so would be expected to have a significant impact on the regulatory ratios of the Group and its banking subsidiaries. The Group uses foreign exchange forwards to manage the effect of exchange rates on its net investments in foreign subsidiaries.

Hedging instruments and ineffectiveness

Group

	2019						
		Carrying Amount					
	Notional	Asset	Liability	Change in fair value used to calculate hedge ineffectiveness	Gain/(loss) recognised in OCI	Ineffectiveness gain/(loss) recognised in net trading income	Amount reclassified from reserves to income
	$million	$million	$million	$million	$million	$million	$million
Forward foreign exchange contracts[1]	701	14	-	(14)	(14)	-	-

	2018						
		Carrying Amount					
	Notional	Asset	Liability	Change in fair value used to calculate hedge ineffectiveness	Gain/(loss) recognised in OCI	Ineffectiveness gain/(loss) recognised in net trading income	Amount reclassified from reserves to income
	$million	$million	$million	$million	$million	$million	$million
Forward foreign exchange contracts[1]	5,200	61	7	54	54	-	-

1 These derivative forward currency contracts have a maturity of less than one year. The hedges are rolled on a periodic basis

Hedged items in net investment hedges

	2019		
	Change in fair value used for calculating hedge ineffectiveness $million	Translation reserve $million	Balances remaining in the translation reserve from de-designated hedge relationships $million
Net investments	14	(14)	-

	2018		
	Change in fair value used for calculating hedge ineffectiveness $million	Translation reserve $million	Balances remaining in the translation reserve from de-designated hedge relationships $million
Net investments	(54)	54	-

Impact of net investment hedges on other comprehensive income

	2019 Income/(expense) $million	2018 Income/(expense) $million
Gain recognised in other comprehensive income	191	282

Hedging instruments and ineffectiveness

Company

	2019						
		Carrying Amount					
	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Gain/(loss) recognised in OCI $million	Ineffectiveness gain/(loss) recognised in net trading income $million	Amount reclassified from reserves to income $million
Forward foreign exchange contracts[1]	701	14	-	(14)	(14)	-	-

	2018						
		Carrying Amount					
	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Gain/(loss) recognised in OCI $million	Ineffectiveness gain/(loss) recognised in net trading income $million	Amount reclassified from reserves to income $million
Forward foreign exchange contracts[1]	5,200	61	7	54	54	-	-

1 These derivative forward currency contracts have a maturity of less than one year. The hedges are rolled on a periodic basis

Hedged items in net investment hedges

	2019		
	Change in fair value used for calculating hedge ineffectiveness $million	Translation reserve $million	Balances remaining in the translation reserve from de-designated hedge relationships $million
Net investments	14	(14)	-

	2018		
	Change in fair value used for calculating hedge ineffectiveness $million	Translation reserve $million	Balances remaining in the translation reserve from de-designated hedge relationships $million
Net investments	(54)	54	-

Impact of net investment hedges on other comprehensive income

	2019 Income(expense) $million	2018 Income(expense) $million
Gain recognised in other comprehensive income	191	282

Notes to the financial statements continued

Maturity of hedging instruments

Group

		2019			
		Less than one month	More than one month and less than one year	One to five years	More than five years
Fair value hedges					
Interest rate swap					
Notional	$million	28	6,670	33,682	4,751
Average fixed interest rate	USD	1.66%	2.10%	2.30%	4.12%
Cross currency swap					
Notional	$million	-	383	146	-
Average fixed interest rate (to USD)	GBP	-	5.38%	4.71%	-
Average exchange rate	GBP/USD	-	0.55	0.63	-
Cash flow hedges					
Interest rate swap					
Notional	$million	-	27	1,250	-
Average fixed interest rate	USD	-	2.18%	1.33%	-
Cross currency swap					
Notional	$million	-	778	100	-
Average fixed interest rate	INR[1]	-	4.32%	3.85%	-
Average exchange rate	KRW[1]/USD	-	69.43	68.85	-
Forward foreign exchnage contracts					
Notional	$million	196	93	-	-
Average exchange rate	INR[1]/USD	81.20	-	-	-
	INR/USD	81.01	-	-	-
	GBP/USD	0.80	0.79	-	-
Net Investment hedges					
Foreign exchange derivatives					
Notional	$million	701	-	-	-
Average exchange rate	INR/USD	70.09	-	-	-

1 Offshore currency

Notes to the financial statements continued

Maturity of hedging instruments

		2018			
		Less than one month	More than one month and less than one year	One to five years	More than five years
Fair value hedges					
Interest rate swap					
Notional	$million	323	13,692	35,190	3,530
Average fixed interest rate	EUR	-	-	0.38%	1.16%
	GBP	0.71%	0.97%	1.67%	1.50%
	USD	2.00%	2.58%	3.06%	5.02%
Cross currency swap					
Notional	$million	-	1,451	603	45
Average fixed interest rate (to USD)	EUR	-	3.03%	2.71%	-
	GBP	-	-	5.44%	2.75%
	JPY	-	(0.10)%	-	-
Average exchange rate	CNY[1]/USD	-	6.71	6.87	-
	JPY/USD	-	110.54	-	-
	GBP/USD	-	-	0.57	0.66
Cash flow hedges					
Interest rate swap					
Notional	$million	-	6,549	2,811	1,373
Average fixed interest rate	HKD	-	1.92%	2.64%	-
	USD	-	2.62%	1.86%	2.42%
Cross currency swap					
Notional	$million	400	2,220	81	-
Average fixed interest rate	CNY	4.01%	3.87%	-	-
	TWD	-	(0.45)%	-	-
	KRW	1.10%	1.70%	0.89%	-
Average exchange rate	CNY[1]/USD	6.45	6.62	-	-
	KRW[1]/USD	1,064.68	1,151.14	1,165.30	-
	TWD[1]/USD	-	30.72	-	-
Foreign exchange derivatives					
Notional	$million	-	-	184	-
Average exchange rate	INR/USD	-	-	81.20	-
	INR/USD	-	-	81.03	-
Net Investment hedges					
Foreign exchange derivatives					
Notional	$million	5,200	-	-	-
Average exchange rate	CNY/USD	6.72	-	-	-
	INR/USD	70.26	-	-	-
	KRW/USD	1,111.10	-	-	-
	TWD/USD	30.14	-	-	-

1 Offshore currency

Maturity of hedging instruments

Company

		2019			
		Less than one month	More than one month and less than one year	One to five years	More than five years
Fair value hedges					
Interest rate swap					
Notional	$million	15	6,386	32,042	4,751
Average fixed interest rate	USD	1.66%	2.07%	2.29%	4.12%
Cross currency swap					
Notional	$million	-	291	146	-
Average fixed interest rate (to USD)	GBP	-	5.38%	4.71%	-
Average exchange rate	GBP/USD	-	0.55	0.63	-
Cash flow hedges					
Interest rate swap					
Notional	$million	-	27	250	-
Average fixed interest rate	USD	-	2.18%	2.26%	-
Cross currency swap					
Notional	$million	-	778	100	-
Average fixed interest rate	INR[1]	-	4.32%	3.85%	-
Average exchange rate	INR[1]/USD	-	69.43	68.85	-
Forward foreign exchange contracts					
Notional	$million	26	93	-	-
Average exchange rate	GBP/USD	0.80	0.79	-	-
Net Investment hedges					
Foreign exchange derivatives					
Notional	$million	701	-	-	-
Average exchange rate	INR/USD	70.09	-	-	-

1 Offshore currency

Notes to the financial statements continued

Maturity of hedging instruments

		2018			
		Less than one month	More than one month and less than one year	One to five years	More than five years
Fair value hedges					
Interest rate swap					
Notional	$million	322	10,946	28,752	3,463
Average fixed interest rate	EUR	-	-	0.38%	1.16%
	GBP	0.71%	0.97%	1.68%	1.50%
	USD	2.00%	2.57%	2.97%	5.09%
Cross currency swap					
Notional	$million	-	131	376	45
Average fixed interest rate (to USD)	CNY	-	4.54%	-	-
	GBP	-	-	5.44%	2.75%
Average exchange rate	CNY[1]/USD	-	6.48	-	-
	GBP/USD	-	-	0.57	0.66
Cash flow hedges					
Interest rate swap					
Notional	$million	-	2,190	1,027	250
Average fixed interest rate	USD	-	2.62%	1.10%	2.26%
Cross currency swap					
Notional	$million	-	-	29	-
Average fixed interest rate	INR	-	-	11.50%	-
Average exchange rate	INR/USD	-	-	72.16	-
Forward foreign exchange contracts					
Notional	$million	-	-	184	-
Average exchange rate	INR[1]/USD	-	-	81.20	-
	INR/USD	-	-	81.03	-
Net Investment hedges					
Foreign exchange derivatives					
Notional	$million	5,200	-	-	-
Average exchange rate	CNY/USD	6.72	-	-	-
	INR/USD	70.26	-	-	-
	KRW/USD	1,111.1	-	-	-
	TWD/USD	30.14	-	-	-

1 Offshore currency

Interest rate benchmark reform

As explained in Note 1 on page 157, the Group has early adopted the 'Interest Rate Benchmark Reform Amendments to IFRS 9, IAS 39 and IFRS 7' which allow the Group to assume that the interest rate benchmark on which cash flows for the hedged item and/or hedging instrument are based are not altered as a result of IBOR reform for the following activities:

- Prospective hedge assessment
- Determining whether a cash flow or forecast transaction for a cash flow hedge is highly probable. However, the Group otherwise assesses whether the cash flows are considered highly probable
- Determining when cumulative balances in the cash flow hedge reserve from de-designated hedges should be recycled to the income statement

For retrospective hedge assessment, the Group will not de-designate a hedge relationship if the actual result is outside the required 80-125% range, but it can be demonstrated that this is solely caused by interest rate benchmark uncertainty and the hedge passes the prospective assessment. Any hedge ineffectiveness continues to be recorded in net trading income.

For hedges of non-contractually specified benchmark portions of an interest rate (such as fair value hedges of interest rate risk on fixed rate debt instruments) the Group only assesses whether the designated benchmark is separately identifiable at hedge inception. The choice of designated benchmark is not revisited for existing hedge relationships.

In applying these amendments the Group has made the following key assumptions for the period end, to be reviewed on an ongoing basis:

- The interest rate benchmarks applicable to the Group that are in scope of the IFRS amendments are USD LIBOR, GBP LIBOR, JPY LIBOR and Singapore Swap Offer Rate (SGD SOR), which is dependent on USD LIBOR and expected to be replaced by the Singapore Overnight Rate Average (SORA) for derivative financial instruments
- EURIBOR is not in scope of the IFRS amendments because its revised methodology incorporates market transaction data, hence the benchmark is expected to continue to exist in future reporting periods
- The Group believes it is too early to reliably estimate when interest rate benchmark uncertainty will be resolved for all benchmarks assumed to be in scope of the amendments. It therefore assumes that the uncertainty arising from interest rate benchmark reform will be present until 31 December 2021, at which time the amendments to IFRS no longer apply

The Group has established an IBOR Transition Programme that is overseen by the Group's Chief Operating Officer, and updates a number of committees including the Board Risk Committee and Group Risk Committee regularly updated. The programme comprises a series of business and function workstreams, with oversight and coordination of the specific areas and risks provided by a central project team. The key objectives of these workstreams include identifying all contracts in scope of benchmark reform, upgrading internal systems to support business in the alternative RFR product suite, identifying and communicating to customers with whom repricing and/or re-papering IBOR-referenced contracts is required and executing the necessary change in contracts. Workstreams actively participate in industry-wide working groups to ensure they are kept informed of the latest developments and are consistent with the approaches of other market participants.

As at 31 December 2019, the following populations of derivative instruments designated in fair value or cash flow hedge accounting relationships were linked to IBOR reference rates:

Group

	Fair value hedges		Cash flow hedges			
	Notional designated up to 31 December 2021 $million	Notional designated beyond 31 December 2021 $million	Notional designated up to 31 December 2021 $million	Notional designated beyond 31 December 2021 $million	Total $million	Weighted average exposure Years
Interest rate swaps						
USD LIBOR	19,217	14,579	300	950	35,046	2.3
GBP LIBOR	613	3,351	-	-	3,964	3.9
JPY LIBOR	160	385	-	-	545	4.9
SGD SOR	563	132	-	-	695	1.7
	20,553	18,447	300	950	40,250	2.5
Cross currency swaps						
USD LIBOR vs Fixed rate foreign currency	436	93	-	-	529	1.1
Total notional of hedging instruments in scope of IFRS amendments	20,989	18,540	300	950	40,779	2.5

Company

	Fair value hedges		Cash flow hedges			
	Notional designated up to 31 December 2021 $million	Notional designated beyond 31 December 2021 $million	Notional designated up to 31 December 2021 $million	Notional designated beyond 31 December 2021 $million	Total $million	Weighted average exposure Years
Interest rate swaps						
USD LIBOR	18,726	13,351	-	250	32,327	2.3
GBP LIBOR	613	3,351	-	-	3,964	3.9
JPY LIBOR	160	385	-	-	545	4.9
SGD SOR	563	132	-	-	695	1.7
	20,062	17,219	-	250	37,531	2.5
Cross currency swaps						
USD LIBOR vs Fixed rate foreign currency	344	93	-	-	437	1.3
Total notional of hedging instruments in scope of IFRS amendments	20,406	17,312	-	250	37,968	2.5

14. Loans and advances to banks and customers

Accounting policy

Refer to Note 12 Financial instruments for the relevant accounting policy.

	Group		Company	
	2019 $million	2018 $million	2019 $million	2018 $million
Loans and advances to banks	36,953	61,417	22,268	23,734
Expected credit loss	(5)	(6)	(3)	(2)
	36,948	61,411	22,265	23,732
Loans and advances to customers	144,324	262,990	80,817	81,973
Expected credit loss	(5,143)	(6,428)	(3,972)	(4,691)
	139,181	256,562	76,845	77,282
Total loans and advances to banks and customers	176,129	317,973	99,110	101,014

Analysis of loans and advances to customers by client segments and related impairment provisions as set out within the Risk review and Capital review (page 55).

15. Reverse repurchase and repurchase agreements including other similar secured lending and borrowing

Accounting policy

The Group purchases securities (a reverse repurchase agreement – 'reverse repo') typically with financial institutions subject to a commitment to resell or return the securities at a predetermined price. These securities are not included in the balance sheet as the Group does not acquire the risks and rewards of ownership, however they are recorded off-balance sheet as collateral received. Consideration paid (or cash collateral provided) is accounted for as a loan asset at amortised cost, unless it is managed on a fair value basis or designated at fair value through profit or loss. In the majority of cases through the contractual terms of a reverse repo arrangement, the Group as the transferee of the security collateral has the right to sell or repledge the asset concerned.

The Group also sells securities (a repurchase agreement – 'repo') subject to a commitment to repurchase or redeem the securities at a predetermined price. The securities are retained on the balance sheet as the Group retains substantially all the risks and rewards of ownership and these securities are disclosed as pledged collateral. Consideration received (or cash collateral received) is accounted for as a financial liability at amortised cost, unless it is either mandatorily classified as fair value through profit or loss or irrevocably designated at fair value through profit or loss at initial recognition.

Financial assets are pledged as collateral as part of sales and repurchases, securities borrowing and securitisation transactions under terms that are usual and customary for such activities. The Group is obliged to return equivalent securities.

Repo and reverse repo transactions typically entitle the Group and its counterparties to have recourse to assets similar to those provided as collateral in the event of a default. Securities sold subject to repos, either by way of a Global Master Repurchase Agreement, or through a securities sale and Total Return Swap (TRS) continue to be recognised on the balance sheet as the Group retains substantially the associated risks and rewards of the securities (the TRS is not recognised). The counterparty liability is included in deposits by banks or customer accounts, as appropriate. Assets sold under repurchase agreements are considered encumbered as the group cannot pledge these to obtain funding.

Reverse repurchase agreements and other similar secured lending

Group

	2019 $million	2018 $million
Banks	18,854	20,698
Customers	40,500	41,037
	59,354	61,735
Of which:		
Fair value through profit or loss	57,430	54,769
Banks	18,269	16,883
Customers	39,161	37,886
Held at amortised cost	1,924	6,966
Banks	585	3,815
Customers	1,339	3,151

Under reverse repurchase and securities borrowing arrangements, the Group obtains securities on terms which permit it to repledge or resell the securities to others. Amounts on such terms are:

	2019 $million	2018 $million
Securities and collateral received (at fair value)	85,191	84,557
Securities and collateral which can be repledged or sold (at fair value)	85,087	82,534
Amounts repledged/transferred to others for financing activities, to satisfy liabilities under sale and repurchase agreements (at fair value)	44,530	40,552

Company

	2019 $million	2018 $million
Banks	18,351	16,748
Customers	40,015	39,161
	58,366	55,909
Of which:		
Fair value through profit or loss	57,041	54,413
Banks	18,205	16,722
Customers	38,836	37,691
Held at amortised cost	1,325	1,496
Banks	146	26
Customers	1,179	1,470

Under reverse repurchase and securities borrowing arrangements, the Group obtains securities on terms which permit it to repledge or resell the securities to others. Amounts on such terms are:

	2019 $million	2018 $million
Securities and collateral received (at fair value)	84,180	77,845
Securities and collateral which can be repledged or sold (at fair value)	84,110	77,844
Amounts repledged/transferred to others for financing activities, to satisfy liabilities under sale and repurchase agreements (at fair value)	44,469	40,459

Repurchase agreements and other similar secured borrowing

Group

	2019 $million	2018 $million
Banks	7,364	4,984
Customers	38,634	39,417
	45,998	44,401
Of which:		
Fair value through profit or loss	45,820	43,000
Banks	7,363	4,777
Customers	38,457	38,223
Held at amortised cost	178	1,401
Banks	1	207
Customers	177	1,194

The tables below set out the financial assets provided as collateral for repurchase and other secured borrowing transactions:

Collateral pledged against repurchase agreements	2019 Fair value through profit or loss $million	Fair value through other comprehensive Income $million	Amortised cost $million	Off-balance sheet $million	Total $million
On-balance sheet					
Debt securities, alternative tier one and other eligible bills	566	329	1,023	-	1,918
Off-balance sheet					
Repledged collateral received	-	-	-	44,530	44,530
As at 31 December 2019	566	329	1,023	44,530	46,448

Collateral pledged against repurchase agreements	2018 Fair value through profit or loss $million	Fair value through other comprehensive Income $million	Amortised cost $million	Off-balance sheet $million	Total $million
On-balance sheet					
Debt securities, alternative tier one and other eligible bills	2,060	1,974	49	-	4,083
Off-balance sheet					
Repledged collateral received	-	-	-	40,552	40,552
As at 31 December 2018	2,060	1,974	49	40,552	44,635

Company

	2019 $million	2018 $million
Banks	7,131	4,661
Customers	38,634	37,910
	45,765	42,571
Of which:		
Fair value through profit or loss	45,587	42,137
Banks	7,130	4,658
Customers	38,457	37,479
Held at amortised cost	178	434
Banks	1	3
Customers	177	431

The tables below set out the financial assets provided as collateral for repurchase and other secured borrowing transactions:

Collateral pledged against repurchase agreements	2019 Fair value through profit or loss $million	Fair value through other comprehensive Income $million	Amortised cost $million	Off-balance sheet $million	Total $million
On-balance sheet					
Debt securities, alternative tier one and other eligible bills	394	329	1,023	-	1,746
Off-balance sheet					
Repledged collateral received	-	-	-	44,469	44,469
As at 31 December 2019	394	329	1,023	44,469	46,215

Collateral pledged against repurchase agreements	2018 Fair value through profit or loss $million	Fair value through other comprehensive Income $million	Amortised cost $million	Off-balance sheet $million	Total $million
On-balance sheet					
Debt securities, alternative tier one and other eligible bills	1,443	835	49	-	2,327
Off-balance sheet					
Repledged collateral received	-	-	-	40,459	40,459
As at 31 December 2018	1,443	835	49	40,459	42,786

16. Goodwill and intangible assets

Accounting policy

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the identifiable net assets and contingent liabilities of the acquired subsidiary, associate or joint venture at the date of acquisition. Goodwill on acquisitions of subsidiaries is included in Intangible assets. Goodwill on acquisitions of associates is included in Investments in associates. Goodwill included in intangible assets is assessed at each balance sheet date for impairment and carried at cost less any accumulated impairment losses. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold. Detailed calculations are performed based on discounting expected cash flows of the relevant cash generating units (CGUs) and discounting these at an appropriate discount rate, the determination of which requires the exercise of judgement. Goodwill is allocated to CGUs for the purpose of impairment testing. CGUs represent the lowest level within the Group which generate separate cash inflows and at which the goodwill is monitored for internal management purposes. These are equal to or smaller than the Group's reportable segments (as set out in Note 2) as the Group views its reportable segments on a global basis. The major CGUs to which goodwill has been allocated are set out in the CGU table (page 230).

Accounting estimates and judgements

The carrying amount of goodwill is based on the application of judgements including the basis of goodwill impairment calculation assumptions. Judgement is also applied in determination of Cash Generating Units.

Estimates include forecasts used for determining cash flows for CGUs and discount rates which factor in country risk-free rates and applicable risk premiums. The Group undertakes an annual assessment to evaluate whether the carrying value of goodwill on-balance sheet is impaired. The estimation of future cash flows and the level to which they are discounted is inherently uncertain and requires significant judgement and is subject to potential change over time.

Acquired intangibles

At the date of acquisition of a subsidiary or associate, intangible assets which are deemed separable and that arise from contractual or other legal rights are capitalised and included within the net identifiable assets acquired. These intangible assets are initially measured at fair value, which reflects market expectations of the probability that the future economic benefits embodied in the asset will flow to the entity, and are amortised on the basis of their expected useful lives (4 to 16 years). At each balance sheet date, these assets are assessed for indicators of impairment. In the event that an asset's carrying amount is determined to be greater than its recoverable amount, the asset is written down immediately.

Computer software

Acquired computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

Internally generated software represents substantially all of the total software capitalised. Direct costs of the development of separately identifiable internally generated software are capitalised where it is probable that future economic benefits attributable to the asset will flow from its use (internally generated software). These costs include salaries and wages, materials, service providers and contractors, and directly attributable overheads. Costs incurred in the ongoing maintenance of software are expensed immediately when incurred. Internally generated software is amortised over a three to five year time period. On an annual basis, software assets' residual values and useful lives are reviewed, including assessing for indicators of impairment. Indicators of impairment include loss of business relevance, obsolescence of asset, exit of the business to which the software relates, technological changes, change in use of the asset, reduction in useful life, plans to reduce usage or scope.

Notes to the financial statements continued

For capitalised software, judgement is required to determine which costs relate to research and which costs relate to development. Further judgement is required to determine the technical feasibility of completing the software such that it will be available for use. Estimates are used to determine how the software will generate probable future economic benefits, these estimates include; cost savings, income increases, balance sheet improvements, improved functionality or improved asset safeguarding.

Group

	2019				2018			
	Goodwill $million	Acquired intangibles $million	Computer software $million	Total $million	Goodwill $million	Acquired intangibles $million	Computer software $million	Total $million
Cost								
As at 1 January	**2,690**	**493**	**2,834**	**6,017**	2,794	515	2,528	5,837
Discontinued operations	**(722)**	**(340)**	**(320)**	**(1,382)**	-	-	-	-
Continuing operations	**1,968**	**153**	**2,514**	**4,635**	2,794	515	2,528	5,837
Exchange translation differences	**(22)**	**(4)**	**54**	**28**	(104)	(23)	(67)	(194)
Additions	**-**	**-**	**526**	**526**	-	1	695	696
Disposals	**(95)**	**(1)**	**(3)**	**(99)**	-	-	-	-
Impairment	**(23)**	**-**	**-**	**(23)**	-	-	-	-
Amounts written off	**-**	**(11)**	**(353)**	**(364)**	-	-	(322)	(322)
As at 31 December	**1,828**	**137**	**2,738**	**4,703**	2,690	493	2,834	6,017
Provision for amortisation								
At 1 January	**-**	**441**	**944**	**1,385**	-	453	873	1,326
Discontinued operations	**-**	**(315)**	**(168)**	**(483)**	-	-	-	-
Continuing operations	**-**	**126**	**776**	**902**	-	453	873	1,326
Exchange translation differences	**-**	**(4)**	**10**	**6**	-	(22)	(21)	(43)
Amortisation	**-**	**9**	**367**	**376**	-	10	363	373
Impairment charge	**-**	**-**	**12**	**12**	-	-	46	46
Disposals	**-**	**(1)**	**-**	**(1)**	-	-	-	-
Amounts written off	**-**	**(11)**	**(324)**	**(335)**	-	-	(317)	(317)
As at 31 December	**-**	**119**	**841**	**960**	-	441	944	1,385
Net book value	**1,828**	**18**	**1,897**	**3,743**	2,690	52	1,890	4,632

As at 31 December 2019, accumulated goodwill impairment losses incurred from 1 January 2005 amounted to $2,824 million (31 December 2018: $2,801 million), of which $23 million was recognised in 31 December 2019 (31 December 2018: $nil million).

Company

	2019				2018			
	Goodwill $million	Acquired intangibles $million	Computer software $million	Total $million	Goodwill $million	Acquired intangibles $million	Computer software $million	Total $million
Cost								
As at 1 January	**955**	**40**	**2,424**	**3,419**	978	45	2,149	3,172
Exchange translation differences	**(13)**	**1**	**44**	**32**	(23)	(6)	(81)	(110)
Additions	**-**	**1**	**387**	**388**	-	1	621	622
Disposals	**-**	**-**	**(3)**	**(3)**	-	-	-	-
Impairment	**(598)**	**-**	**-**	**(598)**	-	-	-	-
Amounts written off	**-**	**(9)**	**(343)**	**(352)**	-	-	(265)	(265)
As at 31 December	**344**	**33**	**2,509**	**2,886**	955	40	2,424	3,419
Provision for amortisation								
At 1 January	**-**	**23**	**723**	**746**	-	24	648	672
Exchange translation differences	**-**	**1**	**9**	**10**	-	(3)	(14)	(17)
Amortisation	**-**	**2**	**323**	**325**	-	2	306	308
Impairment charge	**-**	**-**	**12**	**12**	-	-	43	43
Amounts written off	**-**	**(9)**	**(315)**	**(324)**	-	-	(260)	(260)
As at 31 December	**-**	**17**	**752**	**769**	-	23	723	746
Net book value	**344**	**16**	**1,757**	**2,117**	955	17	1,701	2,673

Goodwill

CGU structure

During the year the Group reviewed its CGU structure. In determining the level at which management monitor goodwill and level at which independent cash flows are generated, the Group considered that CIB as a global business segment should be a single CGU and combined the prior period Corporate Finance and Transaction Banking product level CGU's. As a result of the change, CIB and Private Banking are considered global CGU's which are managed on a Global basis, while Retail Banking, Commercial Banking, Central, including Treasury Market activities are managed on a country basis.

Testing of goodwill for impairment

An annual assessment is made as to whether the current carrying value of goodwill is impaired. For the purposes of impairment testing, goodwill is allocated at the date of acquisition to a CGU. Goodwill is considered to be impaired if the carrying amount of the relevant CGU exceeds its recoverable amount. Indicators of impairment include changes in the economic performance and outlook of the region, including geopolitical changes, changes in market value of regional investments, large credit defaults and strategic decisions to exit certain regions. The recoverable amounts for all the CGUs were measured based on value-in-use (ViU). The calculation of ViU for each CGU is calculated using five-year cash flow projections and an estimated terminal value based on a perpetuity value after year five. The cash flow projections are based on forecasts approved by management up to 2024. The perpetuity terminal value amount is calculated using year five cash flows using long-term GDP growth rates. All cash flows are discounted using discount rates which reflect market rates appropriate to the CGU.

The goodwill allocated to each CGU and key assumptions used in determining the recoverable amounts are set out below and are solely estimates for the purposes of assessing impairment of acquired goodwill.

Group

Cash Generating Unit	2019 Goodwill $million	2019 Pre-tax discount rate per cent	2019 Long-term forecast GDP growth rates per cent	2018 Goodwill $million	2018 Pre-tax discount rate per cent	2018 Long-term forecast GDP growth rates per cent
Country CGUs						
Greater China & North Asia[1]	-			681		
Hong Kong	-	-	-	192	13.2	3.0
Taiwan	-	-	-	489	13.0	2.1
Africa & Middle East	441			451		
Pakistan	183	31.4	4.0	190	22.8	3.4
UAE	167	8.5	2.5	167	9.0	3.3
Others (5)[2]	91	8.9-16.6	2.5-4.9	94	10.6-19.0	2.6-5.3
ASEAN & South Asia	575			596		
India	227	23.2	7.3	229	19.9	7.7
Singapore	280	12.2	1.9	277	15.9	2.7
Others (6)[3]	68	13.8-17.3	3.3-7.3	90	15.4-20.5	4.4-7
Global CGUs	812			962		
Global Private Banking	84	11.2	3.5	84	10.3	3.6
Global Corporate & Intitutional Banking[4]	728	11.5	3.5	878	10.3	3.6
	1,828			2,690		

1 CGUs realted to discontinued operations

2 Bahrain, Ghana, Jordan, Oman and Qatar

3 Bangladesh, Brunei, Indonesia, Nepal, Sri Lanka and Vietnam

4 Global Corporate Finance and Global Transaction Banking CGUs are now combined into a single Global Corporate & Institutional Banking CGU

Three country CGUs; Sri Lanka, Nepal and Oman have had all of the goodwill allocated to them written off, totalling $23 million. This was a result of insufficient cash flows in the ViU calculation such that the carrying amount of each CGU, which included goodwill, was greater than the recoverable amount.

The Group has performed sensitivity analysis on the key assumptions for each CGU's recoverable amount. The following CGUs are considered sensitive to the key variables and any individual movements on the estimates (cashflow, discount rate and GDP growth rate) up to the levels disclosed below would eliminate the current headroom.

	2019 Goodwill $million	2019 Headroom $million	2019 Cash flow reduction per cent	2019 Discount rate increase per cent	2019 GDP growth rate decline per cent
India	227	43	2	1	1
Pakistan	183	20	7	2	3

Company

Acquired intangibles primarily comprise those recognised as part of the acquisitions of American Express Bank, Tradewinds, Australia and New Zealand Project Finance and Grindlays.

Significant items of goodwill arising on acquisitions have been allocated to the following cash generating units for the purposes of impairment testing:

Cash Generating Unit	2019 $million	restated 2018 $million
Global CGUs		
Global Private Banking	**-**	51
Global Coporate & Institutional Banking[1]	**-**	506
Country CGU's		
India	**142**	151
Pakisitan	**-**	36
Others[2]	**202**	211
	344	955

1 Global Corporate Finance and Global Transaction Banking CGUs are now combined into a single Global Corporate & Institutional Banking CGU

2 Bahrain, Bangladesh, Jordan, Oman, Qatar, Sri Lanka and UAE

Goodwill of $557 million has been written off at the company level primarily due to a group reorganisation whereby the Singapore branch was transferred to Standard Chartered Bank (Singapore) Limited, a subsidiary of the Group. As a result of this transfer there were insufficient cash flows in the CIB and PB Global CGU's and the recoverable amount was less than the carrying value, hence the write off.

On a country CGU level the cash flows in Pakistan were insufficient for the recoverable amount to be greater than the carrying amount.

Acquired intangibles

These primarily comprise those items recognised as part of the acquisitions of Union Bank (now amalgamated into Standard Chartered Bank (Pakistan) Limited), Hsinchu (now amalgamated into Standard Chartered Bank (Taiwan) Limited), Pembroke, American Express Bank and ABSA's custody business in Africa. Maintenance intangible assets represent the value in the difference between the contractual right under acquired leases to receive aircraft in a specified maintenance condition at the end of the lease and the actual physical condition of the aircraft at the date of acquisition.

The acquired intangibles are amortised over periods from four years to a maximum of 16 years. The constituents are as follows:

	Group		Company	
	2019 $million	2018 $million	2019 $million	2018 $million
Acquired intangibles comprise:				
Aircraft maintenance[1]	**-**	24	**-**	-
Core deposits	**-**	2	**-**	-
Customer relationships	**12**	19	**7**	8
Licences	**6**	7	**8**	9
Net book value	**18**	52	**15**	17

1 Reduction due to discontinued operation

17. Property, plant and equipment

Accounting policy

All property, plant and equipment is stated at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the assets. Subsequent costs are included in the asset's carrying amount or are recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably.

At each balance sheet date, the assets' residual values and useful lives are reviewed, and adjusted if appropriate, including assessing for indicators of impairment. In the event that an asset's carrying amount is determined to be greater than its recoverable amount, the asset is written down to the recoverable amount. Gains and losses on disposals are included in the income statement.

Repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Land and buildings comprise mainly branches and offices. Freehold land is not depreciated, although it is subject to impairment testing.

Notes to the financial statements continued

Depreciation on other assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

- Buildings — up to 50 years
- Leasehold improvements life of lease — up to 50 years
- Equipment and motor vehicles — three to 15 years
- Aircraft — up to 18 years
- Ships — up to 15 years

Where the Group is a lessee of a right-of-use asset, the leased assets are capitalised and included in Property, plant and equipment with a corresponding liability to the lessor recognised in Other liabilities, in accordance with the Group's leased assets accounting policy in Note 18.

All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Group

	2019					
	Premises $million	Equipment $million	Operating lease assets $million	Leased premises assets[3] $million	Leased equipment assets[3] $million	Total $million
Cost or valuation						
As at 1 January	2,069	767	5,305	1,405	1	9,547
Discontinued operations	(1,358)	(280)	(5,305)	(601)	-	(7,544)
Continuing operations	711	487	-	804	1	2,003
Exchange translation differences	(14)	(13)	-	(29)	-	(56)
Additions	48[1]	99[1]	-	75	-	222
Disposals and fully depreciated assets written off	(24)[2]	(53)[2]	-	(4)	1	(80)
Transfers to assets held for sale	(15)	-	-	-	-	(15)
As at 31 December	706	520	-	846	2	2,074
Depreciation						
Accumulated as at 1 January	705	496	957	-	1	2,159
Discontinued operations	(432)	(195)	(957)	-	-	(1,584)
Continuing operations	273	301	-	-	1	575
Exchange translation differences	(2)	(8)	-	-	-	(10)
Charge for the year	39	76	-	137	1	253
Attributable to assets sold, transferred or written off	(18)[2]	(53)[2]	-	(1)	-	(72)
Transfers to assets held for sale	(5)	-	-	3	-	(2)
Accumulated as at 31 December	287	316	-	139	2	744
Net book amount as at 31 December	419	204	-	707	-	1,330

1 Refer to the cash flow statement under cash flows from investing activities section for the purchase of property, plant and equipment during the period $147 million on page 154.

2 Disposals for property, plant and equipment during the period $12 million in the cash flow statement would include the gains and losses incurred as part of other operating income (Note 6) on disposal of assets during the period and the net book value disposed.

3 Leased premises assets and leased equipment assets were newly recognised on 1 January 2019 due to the adoption of IFRS 16 Leases (refer to Note 1). The Group applied the modified retrospective transition approach, such that the right-of-use asset recognised equals the lease liability, adjusted for prepayments and accruals recognised under IAS 17 as of 31 December 2018.

Group

	2018			
	Premises $million	Equipment $million	Operating lease assets $million	Total $million
Cost or valuation				
As at 1 January	2,216	767	5,684	8,667
Exchange translation differences	(80)	(38)	(10)	(128)
Additions	45[1]	125[1]	866	1,036
Disposals and fully depreciated assets written off	(92)[2]	(87)[2]	(1,113)	(1,292)
Transfers to assets held for sale	(20)	-	(122)	(142)
As at 31 December	2,069	767	5,305	8,141
Depreciation				
Accumulated as at 1 January	753	513	868	2,134
Exchange translation differences	(26)	(26)	(8)	(60)
Charge for the year	86	95	258	439
Impairment (release)/charge	(5)	-	138	133
Attributable to assets sold, transferred or written off	(91)[2]	(86)[2]	(271)	(448)
Transfers to assets held for sale	(12)	-	(28)	(40)
Accumulated as at 31 December	705	496	957	2,158
Net book amount as at 31 December	1,364	271	4,348	5,983

1 Refer to the cash flow statement under cash flows from investing activities section for the purchase of property, plant and equipment during the period $170 million on page 154.

2 Disposals for property, plant and equipment during the period $5 million in the cash flow statement would include the gains and losses incurred as part of other operating income (Note 6) on disposal of assets during the period and the net book value disposed.

Company

	2019				
	Premises $million	**Equipment $million**	**Leased premises assets[3] $million**	**Leased equipment assets[3] $million**	**Total $million**
Cost or valuation					
At 1 January	**305**	**214**	**598**	**1**	**1,118**
Exchange translation differences	**(3)**	**1**	**3**	**-**	**1**
Additions	**21[1]**	**53[1]**	**30**	**-**	**104**
Disposals and fully depreciated assets written off	**(13)[2]**	**(26)[2]**	**(3)**	**-**	**(42)**
Transfers to assets held for sale	**12**	**(1)**	**(38)**	**-**	**(27)**
As at 31 December	**322**	**241**	**590**	**1**	**1,154**
Depreciation					
Accumulated at 1 January	**98**	**101**	**-**	**1**	**200**
Exchange translation differences	**-**	**-**	**1**	**-**	**1**
Charge for the year	**20**	**39**	**94**	**-**	**153**
Attributable to assets sold, transferred or written off	**(7)[2]**	**(26)[2]**	**-**	**-**	**(33)**
Transfers to assets held for sale	**19**	**(1)**	**1**	**-**	**19**
Accumulated at 31 December	**130**	**113**	**96**	**1**	**340**
Net book amount at 31 December	**192**	**128**	**494**	**-**	**814**

1 Refer to the cash flow statement under cash flows from investing activities section for the purchase of property, plant and equipment during the period $74 million on page 154.

2 Disposals for property, plant and equipment during the period $9 million in the cash flow statement would include the gains and losses incurred as part of other operating income (Note 6) on disposal of assets during the period and the net book value disposed.

3 Leased premises assets and leased equipment assets were newly recognised on 1 January 2019 due to the adoption of IFRS 16 Leases (refer to Note 1). The Group applied the modified retrospective transition approach, such that the right-of-use asset recognised equals the lease liability, adjusted for prepayments and accruals recognised under IAS 17 as of 31 December 2018.

Company

	2018		
	Premises $million	Equipment $million	Total $million
Cost or valuation			
At 1 January	545	227	772
Exchange translation differences	(22)	(7)	(29)
Additions	14[1]	35[1]	49
Disposals and fully depreciated assets written off	(75)[2]	(37)[2]	(112)
Transfers to assets held for sale	(157)	(4)	(161)
As at 31 December	305	214	519
Depreciation			
Accumulated at 1 January	216	107	323
Exchange translation differences	(4)	(4)	(8)
Charge for the year	30	36	66
Attributable to assets sold, transferred or written off	(74)[2]	(37)[2]	(111)
Transfers to assets held for sale	(70)	(1)	(71)
Accumulated at 31 December	98	101	199
Net book amount at 31 December	207	113	320

1 Refer to the cash flow statement under cash flows from investing activities section for the purchase of property, plant and equipment during the period $49 million on page 154.

2 Disposals for property, plant and equipment during the period $1 million in the cash flow statement would include the gains and losses incurred as part of other operating income (Note 6) on disposal of assets during the period and the net book value disposed.

18. Leased assets

Accounting policy

The Group assesses whether a contract is a lease in scope of this policy by determining whether the contract gives it the right to use a specified underlying physical asset for a lease term greater than 12 months, unless the underlying asset is of low value.

Where the Group is a lessee and the lease is deemed in scope, it recognises a liability equal to the present value of lease payments over the lease term, discounted using the incremental borrowing rate applicable in the economic environment of the lease. The liability is recognised in 'Other liabilities'. A corresponding right-of-use asset equal to the liability, adjusted for any lease payments made at or before the commencement date, is recognised in 'Property, plant and equipment'. The lease term includes any extension options contained in the contract that the Group is reasonably certain it will exercise.

The Group subsequently depreciates the right-of-use asset using the straight-line method over the lease term and measures the lease liability using the effective interest method. Depreciation of the asset is recognised in 'Depreciation and amortisation', and interest on the lease liability is recognised in 'Interest expense'.

The judgements in determining lease balances are the determination of whether the Group is reasonably certain that it will exercise extension options present in lease contracts. On initial recognition, the Group considers a range of characteristics such as premises function, regional trends and the term remaining on the lease to determine whether it is reasonably certain that a contractual right to extend a lease will be exercised. Where a change in assumption is confirmed by the local property management team, a remeasurement is performed in the Group-managed vendor system.

The estimates were the determination of incremental borrowing rates in the respective economic environments. The Group uses third party broker quotes to estimate its USD cost of senior unsecured borrowing, then uses cross currency swap pricing information to determine the equivalent cost of borrowing in other currencies. Quotes from different brokers are compared to ensure they are reflective of prevailing market conditions.

Prior period information is not restated, i.e. it is presented, as previously reported, under IAS 17 and related interpretations in which the Group as lessee recognised lease payments in operating expenses on a straight-line basis and disclosed future minimum lease payments. The difference between operating lease commitments of $907 million disclosed in the Group's 2018 Annual Report and newly recognised lease liabilities of $1,406 million on 1 January 2019 is driven by different requirements between the old and new standard on which expected cash flows to include. IFRS 16 requires the lease term used to measure lease liabilities to include "reasonably certain" renewal options, whereas previously IAS 17 required disclosure of "non-cancellable" lease commitments. The consequences of this are:

The consequences of this are:

- Under IFRS 16, for some leases the Group includes lease renewal options which it is reasonably certain will be exercised in the measurement of lease liabilities. The cash flows associated with renewal options were not included in the previous operating lease commitment disclosures
- In certain jurisdictions, the Group has a unilateral right to cancel building leases with notice of fewer than 3 months without incurring a significant financial penalty. In previous disclosures, the Group would exclude cash flows beyond the non-cancellable period as permitted under IAS 17, but under IFRS 16 the Group would only exclude these cashflows from lease measurement if it was reasonably certain the termination clause would be exercised

Existing lease liabilities may change in future periods due to changes in assumptions or decisions to exercise lease renewal or termination options, changes in payments due to renegotiations of market rental rates as permitted by those contracts and changes to payments due to rent being contractually linked to an inflation index. In general, the remeasurement of a lease liability under these circumstances leads to an equal change to the right-of-use asset balance, with no immediate effect on the income statement.

The total cash outflow during the year for premises and equipment leases was $256 million for Group and $181 million for Company.

The total expense during the year in respect of leases with a term less than or equal to 12 months was $8 million for Group.

The right-of-use asset balances and depreciation charges are disclosed in Note 17. The lease liability balances are disclosed in Note 22 and the interest expense on lease liabilities is disclosed in Note 3.

Maturity analysis

The maturity profile for lease liabilities associated with leased premises and equipment assets is as follows:

Group

	One year or less $million	Between one year and two years $million	Between two years and five years $million	More than five years $million	Total $million
Other liabilities – lease liabilities	10	22	90	633	755

Company

	One year or less $million	Between one year and two years $million	Between two years and five years $million	More than five years $million	Total $million
Other liabilities – lease liabilities	2	12	27	489	530

19. Other assets

Accounting policy

Refer to Note 12 Financial instruments for the relevant accounting policy.

Commodities represent physical holdings where the Group has title and exposure to the Market Risk associated with the holding. Commodities are fair valued with the fair value derived from observable spot or short-term futures prices from relevant exchanges.

Group

Other assets include:

	2019 $million	2018 $million
Financial assets held at amortised cost (Note 12):		
Hong Kong SAR Government certificates of indebtedness (Note 22)[1]	-	5,964
Cash collateral	8,780	10,323
Acceptances and endorsements[2]	4,037	4,923
Unsettled trades and other financial assets	7,568	11,456
	20,385	32,666
Non-financial assets:		
Commodities[3]	5,465	2,488
Other assets	548	215
	26,398	35,369

Company

Other assets include:

	2019 $million	2018 $million
Financial assets held at amortised cost (Note 12):		
Cash collateral	8,367	9,903
Acceptances and endorsements[2]	3,158	2,867
Unsettled trades and other financial assets	6,225	6,299
	17,750	19,069
Non-financial assets:		
Commodities[3]	4,383	2,488
Other assets	155	74
	22,288	21,631

1 The Hong Kong SAR Government certificates of indebtedness are subordinated to the claims of other parties in respect of bank notes issued
2 Trade finance whereby the Group offers a guarantee of payment between trade counterparties at a fee
3 Commodities are carried at fair value and classified as Level 2

20. Assets held for sale and associated liabilities

Accounting policy

Financial instruments can be reclassified as held for sale if they are non-current assets or if they are part of a disposal group; however, the measurement provisions for the financial instruments remain governed by the requirements of IFRS 9 Financial Instruments. Refer to Note 12 Financial instruments for the relevant accounting policy.

Non-current assets are classified as held for sale and measured at the lower of their carrying amount and fair value less cost to sell when:

a) Their carrying amounts will be recovered principally through sale
b) They are available for immediate sale in their present condition and
c) Their sale is highly probable

Immediately before the initial classification as held for sale, the carrying amounts of the assets are measured in accordance with the applicable accounting policies related to the asset or liability before reclassification as held for sale.

The assets below have been presented as held for sale following the approval of Group management and the transactions are expected to complete in 2020.

Following a decision by the Board of Directors to exit the ship leasing business within Corporate & Institutional Banking, the shipping portfolio has been moved to held for sale.

The financial assets held at fair value through profit or loss reported below are classified under Level 1 $47 million, Level 2 nil and Level 3 $260 million (31 December 2018: $588 million).

Group

Assets held for sale	2019 $million	2018 $million
Equity shares	307	588
Financial assets held at fair value through profit or loss[1]	307	588
Loans and advances to banks	-	107
Loans and advances to customers	12	22
Debt securities held at amortised cost	58	-
Financial assets held at amortised cost	70	129
Interests in joint venture	800	-
Property, plant and equipment[2]	13	102
Others	-	1
	1,190	820

1 Principal Finance assets of $307 million (31 December 2018: $588 million), classified as financial assets held at fair value through profit or loss is expected to be disposed of by the end of 2020
2 Aircraft classified as held for sale by Pembroke Air Leasing Finance nil (31 December 2018: $102 million) is included within property, plant and equipment

Interests in joint ventures

	2019 $million	2018 $million
As at 1 January	717	775
Exchange translation difference	32	(49)
Expected credit loss, net[1]	-	(33)
Share of profit	48	26
Share of FVOCI and other reserves	3	(2)
As at 31 December	800	717

1 IFRS 9 transition impact from joint venture is reported here

The Group's principal joint venture is PT Bank Permata Tbk (Permata). The Group has a 44.56 per cent (31 December 2018: 44.56 per cent) equity investment in Permata. The Group has determined that it has joint control of Permata through its shareholding, which is held alongside a third party that holds the same percentage. The Group has made the judgement, that through these equity holdings, and in making decisions pertaining to Permata that both parties require each other's unanimous consent when making decisions over the relevant activities of Permata. Permata is based in Indonesia and provides financial services to consumer and commercial banking clients. The Group's share of profit of Permata amounts to $48 million (31 December 2018: $26 million) and the Group's share of net assets was $800 million (31 December 2018: $717 million). Permata is listed on the Indonesia Stock Exchange with a share price of IDR1265 as at 30 December 2019, resulting in a share capitalisation value of the Group's investment of $1,140million.

The following table sets out the summarised financial statements of PT Bank Permata Tbk prior to the Group's share of joint ventures being applied:

	2019 $million	2018 $million
Cash and balance at central banks	749	766
Loans and advances to banks	1,281	929
Loans and advances to customers	7,621	6,862
Other assets	1,780	1,882
Total assets	11,431	10,440
Deposits by banks	557	171
Customer accounts	8,886	8,171
Debt securities in issue	-	-
Other financial liabilities	6	8
Other liabilities	436	648
Total liabilities	9,885	8,999
Total equity	1,546	1,441
Operating income	550	517
Of which:		
Interest income	830	779
Interest expense	(426)	(399)
Expenses	(333)	(312)
Of which:		
Depreciation and amortisation	(13)	(5)
Impairment	(72)	(117)
Operating profit	145	88
Taxation	(37)	(23)
Profit after tax	108	65
The financial statements of PT Bank Permata Tbk includes the following		
Other comprehensive profit/(loss) for the year	6	(8)
Total comprehensive income for the year	114	57

Dividends received from PT Bank Permata Tbk were $nil (2018: $nil).

Reconciliation of the net assets above to the carrying amount of the investments in PT Bank Permata Tbk recognised in the consolidated financial statements:

	2019 $million	2018 $million
Net assets of PT Bank Permata Tbk	1,546	1,441
Proportion of the Group's ownership interest in joint ventures	688	642
Notional goodwill	112	108
Other adjustments[1]	-	(33)
Carrying amount of the Group's interest in PT Bank Permata Tbk	800	717

1 Relates to IFRS 9 transition adjustments

In December 2019 the Group signed a conditional share purchase agreement to sell their 44.56 per cent equity interest in Permata, subject to regulatory and purchaser shareholder approvals. The purchase price will be 1.77 times Permata's Book Value based on the most recent financial results published prior to completion. The estimated consideration payable to Standard Chartered Bank in cash is approximately $1.3 billion. Upon completion of the transaction, Standard Chartered Bank will cease to have any equity interest in Permata. The Group has classified the investment in the joint venture as held for sale.

Group Liabilities held for sale	2019 $million	2018 $million
Derivative financial instruments	-	124 [1]
Financial liabilities held at fair value through profit or loss	-	124
Other liabilities	9	-
	9	124

1 The derivative liability is a fixed price forward sale contract to sell the Principal Finance assets which settled during 2019.

Assets held for sale and associated liabilities (Company)

In December 2019 the Company signed a conditional share purchase agreement to sell their 44.56% equity interest in Permata, subject to regulatory and purchaser shareholder approvals. Upon completion of the transaction, SCB will cease to have any equity interest in Permata. The Company has classified the investment in associate as held for sale. The sale price less costs to sell is higher than the carrying amount of the investment, and as such no impairment has been recognised.

Company Assets held for sale	2019 $million	2018 $million
Treasury bills and other eligible bills	-	451
Debt securities	-	4,300
Equity shares	-	19
Loans and advances to customers	-	113
Derivative financial instruments	-	17
Financial assets held at fair value through profit or loss	-	4,900
Cash and balances at central banks	-	719
Loans and advances to banks	-	8,727
Loans and advances to customers	12	27,071
Debt securities	58	495
Financial assets held at amortised cost	70	37,012
Interests in joint venture	828	-
Property, plant and equipment	12	90
Interests in associates	-	23
Others	-	1,630
	910	43,655

Company	2019 $million	2018 $million
As at 1 January	828	828
Additions	-	-
As at 31 December	828	828

The Company accounts for its investments in joint ventures at cost.

Company

Liabilities held for sale

As at 31 December 2019, there were no held for sale financial liabilities associated with the Principal Finance business (31 December 2018: $47 million).

	2019 $million	2018 $million
Derivative financial instruments	-	47 [1]
Financial liabilities held at fair value through profit or loss	-	47
Deposits by banks	-	1,729
Customer accounts	-	34,980
Financial liabilities held at amortised cost	-	36,709
Accruals and deferred income	-	1,059
Other liabilities	9	5,834
	9	43,649

1 The derivative liability is a fixed price forward sale contract to sell the Principal Finance assets, which settled during 2019

21. Debt securities in issue

Accounting policy

Refer to Note 12 Financial instruments for the relevant accounting policy.

Group

	2019			2018		
	Certificates of deposit of $100,000 or more $million	Other debt securities in issue $million	Total $million	Certificates of deposit of $100,000 or more $million	Other debt securities in issue $million	Total $million
Debt securities in issue	20,959	10,284	31,243	20,949	8,239	29,188
Debt securities in issue included within:						
Financial liabilities held at fair value through profit or loss (Note 12)	-	6,271	6,271	-	7,405	7,405
Total debt securities in issue	20,959	16,555	37,514	20,949	15,644	36,593

Company

	2019			2018		
	Certificates of deposit of $100,000 or more $million	Other debt securities in issue $million	Total $million	Certificates of deposit of $100,000 or more $million	Other debt securities in issue $million	Total $million
Debt securities in issue	20,885	9,863	30,748	18,517	5,381	23,898
Debt securities in issue included within:						
Financial liabilities held at fair value through profit or loss (Note 12)	-	6,050	6,050	-	5,036	5,036
Total debt securities in issue	20,885	15,913	36,798	18,517	10,417	28,934

In 2019, the Company issued a total of $3.1 billion senior notes for general business purposes of the Group as shown below:

Securities	$million
$1,250 million callable floating rate senior notes due 2022 (callable 2021)	1,250
$1,000 million callable fixed rate senior notes due 2030 (callable 2025)	1,000
JPY 45 billion callable floating rate senior notes due 2022 (callable 2021)	413
AUD 400 million callable floating rate senior notes due 2025 (callable 2024)	281
JPY 20 billion callable floating rate senior notes due 2026 (callable 2025)	184
Total Senior Notes issued	3,128

In 2018, the Company did not issue any senior notes

Where a debt instrument is callable, the issuer has the right to call.

22. Other liabilities

Accounting policy

Refer to Note 12 Financial instruments for the relevant accounting policy for financial liabilities, Note 18 Leased assets for the accounting policy for leases and Note 30 Share-based payments for the accounting policy for cash-settled share-based payments.

Group

	2019 $million	2018 $million
Financial liabilities held at amortised cost (Note 12)		
Notes in circulation[1]	-	5,964
Acceptances and endorsements[2]	4,037	4,923
Cash collateral	7,604	9,259
Property leases[3]	751	-
Equipment leases[3]	4	-
Unsettled trades and other financial liabilities	11,851	17,789
	24,247	37,935
Non-financial liabilities		
Cash-settled share-based payments	-	-
Other liabilities	232	324
	24,479	38,259

Company

	2019 $million	2018 $million
Financial liabilities held at amortised cost (Note 12)		
Notes in circulation	-	-
Acceptances and endorsements[2]	3,158	2,867
Cash collateral	7,328	8,975
Property leases[3]	530	-
Equipment leases[3]	-	-
Unsettled trades and other financial liabilities	7,618	9,171
	18,634	21,013
Non-financial liabilities		
Cash-settled share-based payments	-	-
Other liabilities	176	170
	18,810	21,183

1 Hong Kong currency notes in circulation of nil (31 December 2018: $5,964 million) that are secured by the Government of Hong Kong SAR certificates of indebtedness of the same amount included in other assets (Note 19)
2 Trade finance whereby the Group offers a guarantee of payment between trade counterparties for a fee
3 Other financial liabilities now include the present value of lease liabilities, as required by IFRS 16 from 1 January 2019, refer Note 18

23. Provisions for liabilities and charges

Accounting policy

The Group recognises a provision for a present legal or constructive 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. Where a liability arises based on participation in a market at a specified date, the obligation is recognised in the financial statements on that date and is not accrued over the period.

Significant accounting estimates and judgements

The recognition and measurement of provisions for liabilities and charges requires significant judgement and the use of estimates about uncertain future conditions or events.

Estimates include the best estimate of the probability of outflow of economic resources, cost of settling a provision and timing of settlement. Judgements are required for inherently uncertain areas such as legal decisions (including external advice obtained), and outcome of regulator reviews.

Group

	2019			2018		
	Provision for credit commitments $million	Other provisions $million	Total $million	Provision for credit commitments $million	Other provisions $million	Total $million
As at 1 January	280	1,050	1,330	259	96	355
Discontinued operations	(21)	(27)	(48)			
Continuing operations	259	1,023	1,282			
Exchange translation differences	15	4	19	(9)	(2)	(11)
Transfer	-	-	-	-	39	39
Charge against profit	36	231	267	39	956	995
Provisions utilised	(13)	(1,153)	(1,166)	(9)	(39)	(48)
As at 31 December	297	105	402	280	1,050	1,330

Company

	2019			2018		
	Provision for credit commitments $million	Other provisions $million	Total $million	Provision for credit commitments $million	Other provisions $million	Total $million
As at 1 January	385	990	1,375	176	38	214
Exchange translation differences	(1)	5	4	(6)	(2)	(8)
Transfer	-	-	-	132	37	169
Charge against profit	34	237	271	64	929	993
Provisions utilised	(8)	(1,144)	(1,152)	19	(12)	7
As at 31 December	410	88	498	385	990	1,375

Provision for credit commitment comprises those undrawn contractually committed facilities where there is doubt as to the borrowers' ability to meet their repayment obligations.

Other provisions consists mainly of provisions for regulatory settlements and legal claims, the nature of which are described in note 25.

24. Contingent liabilities and commitments

Accounting policy

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.

Where the Group undertakes to make a payment on behalf of its customers for guarantees issued such as for performance bonds or as irrevocable letters of credit as part of the Group's Transaction Banking business, for which an obligation to make a payment has not arisen at the reporting date, those are included in these financial statements as contingent liabilities.

Other contingent liabilities primarily include revocable letters of credit and bonds issued on behalf of customers to customs officials, for bids or offers and as shipping guarantees.

Commitments are where the Group has confirmed its intention to provide funds to a customer or on behalf of a customer in the form of loans, overdrafts, future guarantees, whether cancellable or not, or letters of credit, and the Group has not made payments at the balance sheet date; those instruments are included in these financial statements as commitments.

Capital commitments are contractual commitments the Group has entered into to purchase non-financial assets.

The table below shows the contract or underlying principal amounts and risk-weighted amounts of unmatured off-balance sheet transactions at the balance sheet date. The contract or underlying principal amounts indicate the volume of business outstanding and do not represent amounts at risk.

	Group		Company	
	2019 $million	2018 $million	2019 $million	2018 $million
Contingent liabilities				
Guarantees and irrevocable letters of credit	32,795	36,511	25,705	28,853
Other contingent liabilities	2,816	5,441	2,775	3,225
	35,611	41,952	28,480	32,078
Commitments				
Documentary credits and short-term trade-related transactions	3,638	3,982	2,094	2,685
Undrawn formal standby facilities, credit lines and other commitments to lend				
One year and over	52,404	71,467	47,152	55,203
Less than one year	21,488	37,041	9,422	19,412
Unconditionally cancellable	17,050	39,220	6,173	8,089
	94,580	151,710	64,841	85,389

The table below shows the contract or underlying principal amounts and risk-weighted amounts of unmatured Group off-balance sheet transactions at the balance sheet date. The contract or underlying principal amounts indicate the volume of business outstanding and do not represent amounts at risk.

	Group		Company	
	2019 $million	2018 $million	2019 $million	2018 $million
Contingent liabilities (Group)				
Guarantees and irrevocable letters of credit	2,957	-	4,144	3,366
Other contingent liabilities	-	-	-	-
	2,957	-	4,144	3,366
Commitments (Group)				
Documentary credits and short-term trade-related transactions	159	-	161	46
Undrawn commitments	751	-	891	106
	910	-	1,052	152

Capital commitments

	Group	
	2019 $million	2018 $million
Contracted capital expenditure approved by the directors but not provided for in these accounts[1]	4	450

1 Of which: the Group has Nil commitments to purchase aircraft for delivery in 2020 (31 December 2018: $439 million). No pre-delivery payments have been made in respect of these commitments (2018: $5 million)

The Group's share of contingent liabilities and commitments relating to joint ventures is $251 million (31 December 2018: $205 million). As set out in Note 25, the Group has contingent liabilities in respect of certain legal and regulatory matters for which it is not practicable to estimate the financial impact as there are many factors that may affect the range of possible outcomes.

25. Legal and regulatory matters

Accounting policy

Where appropriate, the Group recognises a provision for liabilities when it is probable that an outflow of economic resources embodying economic benefits will be required and for which a reliable estimate can be made of the obligation. The uncertainties inherent in legal and regulatory matters affect the amount and timing of any potential outflows with respect to which provisions have been established. These uncertainties also mean that it is not possible to give an aggregate estimate of contingent liabilities arising from such legal and regulatory matters.

Claims and other proceedings

The Group receives legal claims against it in a number of jurisdictions and is subject to regulatory and enforcement investigations and proceedings from time to time.

Apart from the matters described below, the Group currently considers none of these claims, investigations or proceedings to be material. However, in light of the uncertainties involved in such matters there can be no assurance that the outcome of a particular matter or matters currently not considered to be material may not ultimately be material to the Group's results in a particular reporting period depending on, among other things, the amount of the loss resulting from the matter(s) and the results otherwise reported for such period.

Investigations into, and resolutions with respect to, historical sanctions and financial crime control issues

In April 2019, the Group announced that it had resolved the previously disclosed investigations by (i) the New York Department of Financial Services ("NYDFS"), the Board of Governors of the Federal Reserve System, the Department of Justice ("DOJ"), the New York County District Attorney's Office ("DANY") and the Office of Foreign Assets Control (together the "US Authorities") concerning historical violations of US sanctions laws and regulations from 2007 through to 2014 and (ii) the Financial Conduct Authority ("FCA") concerning the effectiveness and governance of historical financial crime controls in the Group's UK correspondent banking business and in its UAE branches (the "2019 Resolutions"). Under the terms of the 2019 Resolutions, the Group agreed to pay a total of $947 million in monetary penalties to the US Authorities and £102 million to the FCA. As part of the 2019 Resolutions, the Group's Deferred Prosecution Agreements, which were originally entered into with the DOJ and DANY (and subsequently extended) as part of settlements in 2012 with the US Authorities relating to US sanctions compliance, were further extended to 9 April 2021. The monitorship previously imposed by the DOJ expired on 31 March 2019. As of 31 December 2019, the term of the independent consultant appointed by the NYDFS terminated and the business restrictions previously imposed by the NYDFS are no longer in effect.

Other proceedings

Since November 2014, a number of lawsuits have been filed in the United States District Courts for the Southern and Eastern Districts of New York against a number of banks (including Standard Chartered Bank) on behalf of plaintiffs who are, or are relatives of, victims of various terrorist attacks in Iraq. Five of the lawsuits were filed in late December 2018. The plaintiffs allege that the defendant banks aided and abetted the unlawful conduct of US sanctioned parties in breach of the US Anti-Terrorism Act. In March and September 2019, the New York District Courts ruled in favour of the banks' motion to dismiss two lawsuits. Following those rulings, in one lawsuit the plaintiffs are seeking to amend their complaint, and in the other the plaintiffs have filed an appeal against the dismissal. Two other lawsuits will likely join in that appeal and the remaining lawsuits are still at an early procedural stage. Based on the facts currently known, it is not possible for the Group to predict the outcome of these lawsuits.

In January 2020, a shareholder derivative complaint was filed by the City of Philadelphia in the New York State Court against 45 current and former directors and senior officers of the Group. The complaint purports to be brought on behalf of all shareholders of Standard Chartered PLC ("SC PLC"). It is alleged that the individuals breached their duties to the Group and caused a waste of corporate assets by permitting the conduct that gave rise to the costs and losses to the Group of the 2019 Resolutions. SC PLC, Standard Chartered Holdings Limited and Standard Chartered Bank are each named as "nominal defendants" in the complaint. The case is at a very early stage, as the complaint is yet to be served.

In February 2019, the Kenyan Director of Public Prosecutions (DPP) and related agencies in Kenya commenced an investigation into five banks, including Standard Chartered Bank Kenya Limited (SCBK), in connection with the alleged theft of funds from Kenya's National Youth Service. This investigation followed fines imposed on the banks, including SCBK, by the Central Bank of Kenya regarding adequacy of controls related to the processing of the allegedly stolen funds. Following the investigation, the DPP announced that it had received recommendations from the Kenyan Directorate of Criminal Investigations that charges should be brought against the five banks, plus bank officials and other individuals. In December 2019, SCBK agreed a settlement of this matter with the DPP. Under the terms of SCBK's settlement, the DPP agreed to defer prosecution against both SCBK and any persons affiliated with SCBK and the DPP imposed a penalty of KES100 million ($964,000) on SCBK.

26. Subordinated liabilities and other borrowed funds

Accounting policy

Subordinated liabilities and other borrowed funds are classified as financial instruments. Refer to Note 12 Financial Instruments for the accounting policy.

All subordinated liabilities are unsecured, unguaranteed and subordinated to the claims of other creditors including without limitation, customer deposits and deposits by banks. The Group has the right to settle these debt instruments in certain circumstances as set out in the contractual agreements. Where a debt instrument is callable, the issuer has the right to call.

	2019 $million	2018 $million
Subordinated loan capital – issued by subsidiary undertakings		
$750 million 5.875 per cent subordinated notes due 2020	**-**	754
BWP 127.26 million 8.2 per cent subordinated notes due 2022 (callable)	**-**	12
BWP 70 million floating rate subordinated notes due 2021 (callable)	**-**	7
BWP 50 million floating rate notes due 2022 (callable)	**-**	5
$540 million floating rate subordinated notes due 2030 (callable 2025)	**540**	-
	540	778
Subordinated loan capital – issued by company:		
£675 million 5.375 per cent undated step up subordinated notes due (callable 2020)	**298**	296

	2019 $million	2018 $million
£200 million 7.75 per cent subordinated notes due (callable 2022)	**53**	53
$1 billion floating rate subordinated notes due 2022	**-**	1,000
$960 million floating rate subordinated notes due 2022	**960**	960
$700 million 8.0 per cent subordinated notes due 2031	**429**	405
$2 billion floating rate subordinated notes due 2023	**2,000**	2,000
$500 million floating rate subordinated notes due 2043	**500**	500
$1.698 billion floating rate subordinated notes due 2025 (callable 2020)	**1,698**	1,698
$2 billion floating rate subordinated notes due 2044 (callable 2039)	**2,000**	2,000
$250 million floating rate subordinated notes due 2048 (callable 2043)	**250**	250
$1 billion floating rate subordinated notes due 2029 (callable 2024)	**1,000**	1,000
$1.5 billion floating rate subordinated notes due 2039 (callable 2034)	**879**	879
$1.25 billion floating rate subordinated notes due 2032 (callable 2027)	**1,250**	1,250
$1 billion 3.516 per cent subordinated notes due 2030 (callable 2025)	**996**	-
	12,313	12,291
Primary capital floating rate notes		
$400 million floating rate undated subordinated notes	**16**	16
$300 million floating rate undated subordinated notes (Series 2)	**69**	69
$400 million floating rate undated subordinated notes (Series 3)	**50**	50
$200 million floating rate undated subordinated notes (Series 4)	**26**	26
£150 million floating rate undated subordinated notes	**15**	15
	176	176
	13,029	13,245

	2019			
	USD $million	**GBP $million**	**Others $million**	**Total $million**
Fixed rate subordinated debt	**1,425**	**351**	**-**	**1,776**
Floating rate subordinated debt	**11,237**	**16**	**-**	**11,253**
Total	**12,662**	**367**	**-**	**13,029**

	2018			
	USD $million	GBP $million	Others $million	Total $million
Fixed rate subordinated debt	1,159	349	12	1,520
Floating rate subordinated debt	11,698	15	12	11,725
Total	12,857	364	24	13,245

Redemptions and repurchases during the year

On 27 June 2019, Standard Chartered Bank Botswana Limited exercised its right to redeem BWP 127.26 million 8.2 per cent subordinated notes 2022 (callable 2017).

On 27 March 2019, Standard Chartered Bank Botswana Limited exercised its right to redeem BWP 50 million floating rate notes 2022 (callable 2017).

On 12 February 2019, Standard Chartered Bank Botswana Limited exercised its right to redeem BWP 70 million floating rate subordinated notes 2021 (callable 2016).

On 28 June 2019, Standard Chartered Bank exercised its right to redeem $1 billion floating rate subordinated notes 2022.

Issuance during the year

On 12 November 2019, Standard Chartered Bank issued $1 billion 3.516 per cent subordinated debt 2030 (callable 2025).

On 8 May 2019, Standard Chartered Bank (Singapore) Limited issued $540 million floating rate subordinated debt 2030 (callable 2025).

Disposal of operations

On 4 March 2019, Standard Chartered Bank (SCB) transferred via a dividend in specie its ordinary shares in Standard Chartered Bank (Hong Kong) Limited (SCB HK) to Standard Chartered Holdings Limited (SCH). SCH in turn transferred via a divided in specie 100% of the ordinary shares of SCB HK to Standard Chartered PLC (SC PLC), the Group's ultimate parent. $750 million 5.875 per cent subordinated notes 2020 issued by SCB HK were included in the transfer.

27. Share capital, other equity instruments and reserves

Accounting policy

Financial instruments issued are classified as equity when there is no contractual obligation to transfer cash, other financial assets or issue available number of own equity instruments. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Securities which carry a discretionary coupon and have no fixed maturity or redemption date are classified as other equity instruments. Interest payments on these securities are recognised, net of tax, as distributions from equity in the period in which they are paid.

Where the Company or other members of the consolidated Group purchase the Company's equity share capital, the consideration paid is deducted from the total shareholders' equity of the Group and/or of the Company as treasury shares until they are cancelled. Where such shares are subsequently sold or reissued, any consideration received is included in shareholders' equity of the Group and/or the Company.

Group and Company

	Number of ordinary shares	Ordinary share capital[1]	Ordinary share premium	Preference share premium[2]	Total share capital and share premium	Other equity instruments
	millions	$million	$million	$million	$million	$million
As at 1 January 2018	26,524	26,524	296	1,500	28,320	5,000
As at 31 December 2018	**26,524**	**26,524**	**296**	**1,500**	**28,320**	**5,000**
Cancellation of shares	**(7,500)**	**(7,500)**	**-**	**-**	**(7,500)**	**-**
As at 31 December 2019	**19,024**	**19,024**	**296**	**1,500**	**20,820**	**5,000**

1 Issued and fully paid ordinary shares of $1 each

2 Includes preference share capital of $75,000

Ordinary share capital

The authorised share capital of the Company at 31 December 2019 was $26,789 million and TWD 1,225 million (31 December 2018: $26,789 million and TWD 1,225 million) made up of 26,782 million ordinary shares of $1 each, 2.4 million non-cumulative irredeemable preference shares of $0.01 each, 1 million non-cumulative preference shares of $5 each, 15,000 non-cumulative redeemable preference shares of $5 each, 462,500 non-cumulative redeemable 8.125% preference shares of $5 each and 50million non-cumulative redeemable preference shares of TWD24.50 each.

The issued share capital of the Company at 31 December 2019 was $19,024 million (31 December 2018: $26,524 million) made up of: 26,524 million ordinary shares of $1 each.

The issued ordinary share capital of the Company decreased by 7,500 million shares during the year. The Company has one class of ordinary shares, which carries no rights to fixed income. Subject to any special rights or restrictions as to voting attached to any shares in accordance with the Company's Royal Charter Bye-Laws and Rules, on a show of hands every member present at a general meeting by a representative or proxy shall have one vote. On a poll, every member holding shares or stock of less than the nominal amount of US$25 shall not have any vote, but every other member who is present in person or by proxy shall have votes in accordance with the following scale:

Nominal amount of Shares or Stock held	Number of Votes
US$25 or more but less than US$50	1 vote
US$50 or more but less than US$100	2 votes
US$100 or more but less than US$250	3 votes
US$250 or more but less than US$375	4 votes
US$375 or more but less than US$500	5 votes
US$500 or more but less than US$750	6 votes
US$750 or more but less than US$1,000	7 votes
US$1,000 or more but less than US$1,250	8 votes
US$1,250 or more but less than US$1,500	9 votes
US$1,500 or more	10 votes

Preference share capital

7,500 non-cumulative redeemable preference shares issued on 8 December 2006 with a nominal value of $5 each and a premium of $99,995, making a paid-up amount per preference share of $100,000. The preference shares are redeemable at the option of the company in whole or in part on 31 Jan 2027 and on any quarterly dividend payment date falling on or around ten-year intervals thereafter. The amount payable on redemption will be the paid up amount of $100,000 per preference share to be redeemed, plus an amount equal to the accrued but unpaid dividend thereon up to but excluding the redemption date; and;7,500 non-cumulative redeemable preference shares issued on 25 May 2007 with a nominal value of $5 each and a premium of $99,995, making a paid up amount per preference share of $100,000. The preference shares are redeemable at the option of the company on 30 July 2037 and on any quarterly dividend payment date falling on or around ten-year intervals thereafter. The amount payable on redemption will be the paid-up amount of $100,000 per preference share to be redeemed, plus an amount equal to the accrued but unpaid dividend thereon up to but excluding the redemption date

Other equity instruments

On 17 December 2015 the Company issued $2,000 million Fixed Rate Resetting Perpetual Subordinated Contingent Convertible Securities as Additional Tier 1 (AT1) securities.

On 19 December 2016 the Company issued a further $2,000 million Fixed Rate Resetting Perpetual Subordinated Contingent Convertible Securities as AT1 securities.

On 20 January 2017 the Company issued a further $1,000 million Fixed Rate Resetting Perpetual Subordinated Contingent Convertible Securities as AT1 securities.

All issuances were made for general business purposes and to increase the regulatory capital base of the Group.

The principal terms of the AT1 securities are described below:

→ The securities are perpetual and redeemable, at the option of the Company in whole but not in part, on the first call date or on any fifth anniversary after the first call date

→ The securities are also redeemable for certain regulatory or tax reasons on any date at 100 per cent of their principal amount together with any accrued but unpaid interest up to (but excluding) the date fixed for redemption. Any redemption is subject to the Company giving notice to the relevant regulator and the regulator granting permission to redeem

→ The interest rate for the period from (and including) the issue date to (but excluding) 2 April 2023 is a fixed rate of 7.75 per cent per annum. The reset date for the interest rate is 2 April 2023 and each date falling five, or an integral multiple of five years after the first reset date

→ The interest rate on each of the securities will be payable semi-annually in arrears on 2 April and 2 October in each year, accounted for as a dividend

→ Interest on the securities is due and payable only at the sole and absolute discretion of the Company, subject to certain additional restrictions set out in the terms and conditions. Accordingly, the Company may at any time elect to cancel any interest payment (or part thereof) which would otherwise be payable on any interest payment date

→ The securities will be written down in full should the fully loaded Common Equity Tier 1 ratio of the issuer fall below 7.0 per cent (a Loss Absorption Event).

The securities rank behind the claims against the Company of: (a) unsubordinated creditors; (b) claims which are expressed to be subordinated to the claims of unsubordinated creditors of the Company but not further or otherwise; or (c) claims which are, or are expressed to be, junior to the claims of other creditors of the Company, whether subordinated or unsubordinated, other than claims which rank, or are expressed to rank, pari passu with, or junior to, the claims of holders of the AT1 securities in a winding-up occurring prior to the Loss Absorption Event.

Reserves

The constituents of the reserves are summarised as follows:

→ The capital reserve represents the exchange difference on redenomination of share capital and share premium from sterling to US dollars in 2001. The capital redemption reserve represents the nominal value of preference shares redeemed.

→ Own credit adjustment reserve represents the cumulative gains and losses on financial liabilities designated at fair value through profit or loss relating to own credit. Gains and losses on financial liabilities designated at fair value through profit or loss relating to own credit in the year have been taken through other comprehensive income into this reserve. On derecognition of applicable instruments, the balance of any OCA will not be recycled to the income statement, but will be transferred within equity to retained earnings

→ Available-for-sale reserve represents the unrealised fair value gains and losses in respect of financial assets classified as available-for-sale, net of taxation. Gains and losses are deferred in this reserve and are reclassified to the income statement when the underlying asset is sold, matures or becomes impaired.

→ Cash flow hedge reserve represents the effective portion of the gains and losses on derivatives that meet the criteria for these types of hedges. Gains and losses are deferred in this reserve and are reclassified to the income statement when the underlying hedged item affects profit and loss or when a forecast transaction is no longer expected to occur.

→ Translation reserve represents the cumulative foreign exchange gains and losses on translation of the net investment of the Group in foreign operations. Since 1 January 2004, gains and losses are deferred to this reserve and are reclassified to the income statement when the underlying foreign operation is disposed. Gains and losses arising from derivatives used as hedges of net investments are netted against the foreign exchange gains and losses on translation of the net investment of the foreign operations.

→ Retained earnings represents profits and other comprehensive income earned by the Group and Company in the current and prior periods, together with the after tax increase relating to equity-settled share options, less dividend distributions and own shares held (treasury shares).

A substantial part of the Group's reserves is held in overseas subsidiary undertakings and branches, principally to support local operations or to comply with local regulations. The maintenance of local regulatory capital ratios could potentially restrict the amount of reserves which can be remitted. In addition, if these overseas reserves were to be remitted, further unprovided taxation liabilities might arise.

As at 31 December 2019, the distributable reserves of Standard Chartered Bank (the Company) were $5.1 billion (2018: $6.1 billion). These comprised of retained earnings. Distribution of reserves is subject to maintaining minimum capital requirements.

28. Non-controlling interests

Accounting policy

Non-controlling interests are measured either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets.

	$million
As at 1 January 2018	4,508
Other comprehensive gain/(loss) attributable to non-controlling interests	59
Other profits attributable to non-controlling interests	554
Comprehensive income for the year	613
Distributions	(341)
Other increases[1]	3
As at 31 December 2018	**4,783**
Other comprehensive gain/(loss) attributable to non-controlling interests	**(17)**
Other profits attributable to non-controlling interests	**50**
Comprehensive income for the year	**33**
Distributions	**(56)**
Issuance of preference shares by Standard Chartered Bank (Singapore) Limited[2]	**1,057**
Disposal of non-controlling interest in Standard Chartered Bank (Hong Kong) Limited[3]	**(4,521)**
Other decreases[4]	**(7)**
As at 31 December 2019	**1,289**

1 Mainly due to additional shares issued by Angola SA
2 Non-controlling interest held by Standard Chartered PLC
3 Disposal of non- controlling interest held by Standard Chartered Holdings Limited
4 Disposal of non-controlling interest in Ori Private Limited and Sirat Holdings Limited.

29. Retirement benefit obligations

Accounting policy

The Group operates pension and other post-retirement benefit plans around the world, which can be categorised into defined contribution plans and defined benefit plans.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension plans on a statutory or contractual basis, and such amounts are charged to operating expenses. The Group has no further payment obligations once the contributions have been paid.

For funded defined benefit plans, the liability recognised in the balance sheet is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. For unfunded defined benefit plans the liability recognised at the balance sheet date is the present value of the defined benefit obligation.

The defined benefit obligation is calculated annually by independent actuaries using the projected unit method.

Actuarial gains and losses that arise are recognised in shareholders' equity and presented in the statement of other comprehensive income in the period they arise. The Group determines the net interest expense on the net defined benefit liability for the year by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the net defined benefit liability, taking into account any changes in the net defined benefit liability during the year as a result of contributions and benefit payments. Net interest expense, the cost of the accrual of new benefits, benefit enhancements (or reductions) and administration expenses met directly from plan assets are recognised in the income statement in the period in which they were incurred.

Significant accounting estimates and judgements

There are many factors that affect the measurement of the retirement benefit obligations of the UK Fund and Overseas Plans. This measurement requires the use of estimates, such as discount rates, inflation, pension increases, salary increases, and life expectancies which are inherently uncertain. These estimates are further described as follows.

Discount rates are determined by reference to market yields at the end of the reporting period on high quality corporate bonds (or, in countries where there is no deep market in such bonds, government bonds) of a currency and term consistent with the currency and term of the post-employment benefit obligations. This is the approach adopted across our geographies. Where there are inflation-linked bonds available (e.g. United Kingdom and the eurozone), the Group derives inflation based on the market on those bonds, with the market yield adjusted in respect of the United Kingdom to take account of the fact that liabilities are linked to Consumer Price Index inflation, whereas the reference bonds are linked to Retail Price Index inflation. Where no inflation-linked bonds exist, we determine inflation assumptions based on long-term forecasts. Salary growth assumptions reflect the Group's long-term expectations, taking into account future business plans and macroeconomic data (primarily expected future long-term inflation). Demographic assumptions, including mortality and turnover rates, are typically set based on the assumptions used in the most recent actuarial funding valuation, and will generally use industry standard tables, adjusted where appropriate to reflect recent historic experience and/or future expectations. The sensitivity of the liabilities to changes in these assumptions is shown in the Note below.

Group

Retirement benefit obligations comprise:

	2019 $million	2018 $million
Defined benefit plans obligation	**417**	386
Defined contribution plans obligation	**10**	13
Net obligation	**427**	399

Retirement benefit charge comprises:

	2019 $million	2018 restated $million
Defined benefit plans	**38**	45
Defined contribution plans	**226**	214
Charge against profit (note 7)	**264**	259

The Bank Group operates over 50 defined benefit plans across its geographies, many of which are closed to new entrants who now join defined contribution arrangements. The aim of all these plans, as part of the Bank Group commitment to financial wellbeing for employees, is to give employees the opportunity to save appropriately for retirement in a way that is consistent with local regulations, taxation requirements and market conditions. The defined benefit plans expose the Bank Group to currency risk, interest rate risk, investment risk and actuarial risks such as longevity risk.

The material holdings of government and corporate bonds shown on page 249 partially hedge movements in the liabilities resulting from interest rate and inflation changes. Setting aside movements from other drivers such as currency fluctuation, the falls in discount rates in most geographies over 2019 have led to higher liabilities. These have been somewhat offset by increases in the value of bonds held and good stock market performance. These movements are shown as actuarial losses versus gains respectively in the tables below. Contributions into a number of plans in excess of the amounts required to fund benefits accruing have partially offset the increase in liabilities over the year.

The disclosures required under IAS 19 have been calculated by independent qualified actuaries based on the most recent full actuarial valuations updated, where necessary, to 31 December 2019.

UK Fund

The Standard Chartered Pension Fund (the 'UK Fund') is the Bank Group largest pension plan, representing 80 per cent (31 December 2018: 58 per cent) of total pension liabilities. The UK Fund is set up under a trust that is legally separate from the Bank (its formal sponsor) and, as required by UK legislation, at least one third of the trustee directors are nominated by members; the remainder are appointed by the Bank. The trustee directors have a fiduciary duty to members and are responsible for governing the UK Fund in accordance with its Trust Deed and Rules.

The UK Fund was closed to new entrants from 1 July 1998 and new employees were offered membership of a defined contribution plan. The UK Fund was closed to the accrual of new benefits from 1 April 2018.

The financial position of the UK Fund is regularly assessed by an independent qualified actuary. The funding valuation as at 31 December 2017 was completed in December 2018 by the Scheme Actuary, A Zegleman of Willis Towers Watson, using assumptions different from those on page 249, and agreed with the UK Fund trustee. It revealed a past service deficit of $210 million (£159 million). To repair the deficit, four annual cash payments of $43.5 million (£32.9 million) were agreed, with the first two of these having been paid in December 2018 and December 2019. The agreement allows that if the funding position improves to being at or near a surplus in future years, the two payments from December 2020 will be reduced or eliminated. In addition, an escrow account of $145 million (£110 million) exists to provide security for future contributions.

As at 31 December 2019, the weighted average duration of the UK Fund was 16 years (31 December 2018: 14 years).

The Group is not required to recognise any additional liability under IFRIC 14 or the 2015 exposure draft of proposed amendments to it, as the Bank has control of any pension surplus under the Trust Deed and Rules.

Overseas plans

The principal overseas defined benefit arrangements operated by the Bank Group are in Germany, India, Jersey, United Arab Emirates (UAE) and the United States of America (US).

Key assumptions

The principal financial assumptions used as at 31 December 2019 were:

	Funded plans			
	UK Fund		Overseas Plans [1]	
	31.12.19 %	31.12.18 %	31.12.19 %	31.12.18 %
Discount rate	**2.0**	2.8	**1.1 – 7.0**	0.9 – 7.6
Price inflation	**2.1**	2.1	**1.5 – 4.0**	1.0 – 5.0
Salary increases	**n/a**	n/a	**3.0 – 7.0**	2.1 – 7.0
Pension increases	**2.1**	2.1	**0.0 – 3.0**	0.0 – 3.2

1 The range of assumptions shown is for the main defined benefit overseas plans in Germany, India, Jersey, UAE and the US. These comprise around 80 per cent of the total liabilities of overseas defined benefit plans

Unfunded plans

	US post-retirement medical[1]		Other	
	31.12.19 %	31.12.18 %	31.12.19 %	31.12.18 %
Discount rate	**3.4**	4.4	**1.5 – 7.0**	2.7 – 7.6
Price inflation	**2.5**	2.5	**2.0 – 4.0**	2.0 – 5.0
Salary increases	**n/a**	n/a	**4.0 – 7.0**	3.5 – 7.0
Pension increases	**n/a**	n/a	**0.0 – 2.1**	0.0 – 2.1
Post-retirement medical rate	**8% in 2019 reducing by 1% per annum to 5% in 2022**	9% in 2018 reducing by 1% per annum to 5% in 2022	**n/a**	n/a

1 The range of assumptions shown is for the main unfunded plans in India, Thailand, UAE and the UK. They comprise around 85 per cent of the total liabilities of unfunded plans

The principal non-financial assumptions are those made for UK life expectancy. The assumptions for life expectancy for the UK Fund are that a male member currently aged 60 will live for 28 years (31 December 2018: 28 years) and a female member for 29 years (31 December 2018: 29 years) and a male member currently aged 40 will live for 30 years (31 December 2018: 30 years) and a female member for 31 years (31 December 2018: 30 years) after their 60th birthdays.

Both financial and non-financial assumptions can be expected to change in the future, which would affect the value placed on the liabilities. For example, changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below:

- → If the discount rate increased by 25 basis points, the liability would reduce by approximately $65 million for the UK Fund (31 December 2018: $55 million) and $25 million for the other plans (31 December 2018: $30 million)
- → If the rate of inflation increased by 25 basis points, the liability allowing for the consequent impact on pension and salary increases, would increase by approximately $45 million for the UK Fund (31 December 2018 $40 million) and $10 million for the other plans (31 December 2018: $20 million)
- → If the rate salaries increase compared with inflation increased by 25 basis points, the liability would increase by nil for the UK Fund (31 December 2018: $nil million) and approximately $5 million for the other plans (31 December 2018: $15 million)
- → If longevity expectations increased by one year, the liability would increase by approximately $60 million for the UK Fund (31 December 2018: $45 million) and $15 million for the other plans (31 December 2018: $15 million)

Although this analysis does not take account of the full distribution of cash flows expected under the UK Fund, it does provide an approximation of the sensitivity to the main assumptions. While changes in other assumptions would also have an impact, the effect would not be as significant.

Fund values:

The fair value of assets and present value of liabilities of the plans attributable to defined benefit members were:

	31.12.19				31.12.18			
	Funded plans		Unfunded plans		Funded plans		Unfunded plans	
As at 31 December	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million
Equities	**102**	**147**	**N/A**	**N/A**	166	310	N/A	N/A
Government bonds	**956**	**115**	**N/A**	**N/A**	762	176	N/A	N/A
Corporate bonds	**189**	**62**	**N/A**	**N/A**	147	87	N/A	N/A
Absolute Return Fund	**158**	**-**	**N/A**	**N/A**	147	-	N/A	N/A
Hedge funds[1]	**100**	**-**	**N/A**	**N/A**	110	-	N/A	N/A
Insurance linked funds[1]	**37**	**-**	**N/A**	**N/A**	36	-	N/A	N/A
Opportunistic credit[1]	**-**	**-**	**N/A**	**N/A**	15	-	N/A	N/A
Property	**75**	**5**	**N/A**	**N/A**	44	14	N/A	N/A
Derivatives	**13**	**3**	**N/A**	**N/A**	(7)	3	N/A	N/A
Cash and equivalents	**77**	**56**	**N/A**	**N/A**	136	221	N/A	N/A
Others[1]	**8**	**21**	**N/A**	**N/A**	9	34	N/A	N/A
Total fair value of assets[2]	**1,715**	**409**	**N/A**	**N/A**	1,565	845	N/A	N/A
Present value of liabilities	**(1,832)**	**(488)**	**(16)**	**(205)**	(1,615)	(974)	(17)	(190)
Net pension plan obligation	**(117)**	**(79)**	**(16)**	**(205)**	(50)	(129)	(17)	(190)

1 Unquoted assets

2 Self-investment is monitored closely and is less than $1 million of Standard Chartered equities and bonds for 2019 (31 December 2018: less than $1 million). Self-investment is only allowed where it is not practical to exclude it – for example through investment in index-tracking funds where the Bank Group is a constituent of the relevant index

Notes to the financial statements continued

The pension cost for defined benefit plans was:

2019	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
Current service cost	-	14	-	12	26
Past service cost and curtailments[1]	-	2	-	(1)	1
Settlement cost	-	-	-	-	-
Interest income on pension plan assets	(43)	(16)	-	-	(59)
Interest on pension plan liabilities	44	19	1	6	70
Total charge/(credit) to profit before deduction of tax	1	19	1	17	38
Net gain on plan assets[2]	(86)	(53)	-	-	(139)
Losses/(gains) on liabilities	196	58	(2)	25	277
Total losses/(gains) recognised directly in statement of comprehensive income before tax	110	5	(2)	25	138
Deferred taxation	5	(6)	-	-	(1)
Total losses/(gains) after tax	115	(1)	(2)	25	137

1 Past service costs arose primarily due to plan changes in Thailand and US, and were largely offset by past service credits due to plan changes in UAE

2 The actual return on the UK Fund assets was a gain of $129 million and on overseas plan assets was a gain of $69 million

The pension cost for defined benefit plans was:

2018	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
Current service cost	1	17	1	10	29
Past service cost and curtailments[1]	2	-	-	-	2
Settlement cost[2]	-	-	-	1	1
Interest income on pension plan assets	(42)	(17)	-	-	(59)
Interest on pension plan liabilities	44	20	1	7	72
Total charge/(credit) to profit before deduction of tax	5	20	2	18	45
Losses on plan assets excluding interest income[3]	66	21	-	-	87
(Gains)/Losses on liabilities	(74)	(35)	1	(2)	(110)
Total (gains)/losses recognised directly in statement of comprehensive income before tax	(8)	(14)	1	(2)	(23)
Deferred taxation	2	-	-	-	2
Total (gains)/losses after tax	(6)	(14)	1	(2)	(21)

1 The past service cost in the UK Fund is due to the impact of the Lloyds judgement on 26 October 2018 confirming the requirement for UK DB pension schemes to equalise the impact of Guaranteed Minimum Pensions (GMPs) for males and females
2 The costs arose primarily from the settlement of benefits in Thailand
3 The actual return on the UK fund assets was a loss of $26 million and on overseas plan assets was a loss of $19 million

Movement in the defined benefit pension plans and post-retirement medical deficit during the year comprise:

	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
As at 31 December 2018	(50)	(129)	(17)	(190)	(386)
Discontinued operations	-	48	-	8	56
Deficit as at 1 January 2019	(50)	(81)	(17)	(182)	(330)
Contributions	44	36	-	20	100
Current service cost	-	(14)	-	(12)	(26)
Past service cost and curtailments	-	(2)	-	1	(1)
Settlement costs and transfers impact	-	-	-	-	-
Net interest on the net defined benefit asset/liability	(1)	(3)	(1)	(6)	(11)
Actuarial (losses)/gains	(110)	(5)	2	(25)	(138)
Exchange rate adjustment	-	(10)	-	(1)	(11)
Deficit as at 31 December 2019[1]	(117)	(79)	(16)	(205)	(417)

1 The deficit total of $416 million is made up of plans in deficit of $429 million (31 December 2018: $421 million) net of plans in surplus with assets totalling $13 million (31 December 2018: $35 million)

Movement in the defined benefit pension plans and post-retirement medical deficit during the year comprise:

	Funded plans		Unfunded plans		
	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million	Total $million
Deficit at 1 January 2018	(120)	(111)	(18)	(194)	(443)
Contributions	62	64	-	17	143
Current service cost	(1)	(54)	-	(12)	(67)
Past service cost and curtailments	(2)	-	-	-	(2)
Settlement costs and transfers impact	-	-	-	(1)	(1)
Net interest on the net defined benefit asset/liability	(3)	(2)	(1)	(5)	(11)
Actuarial (losses)/gains	9	(29)	2	(1)	(19)
Exchange rate adjustment	5	3	-	6	14
Deficit as at 31 December 2018[1]	(50)	(129)	(17)	(190)	(386)

1 The deficit total of $386 million is made up of plans in deficit of $421 million (31 December 2017: $483 million) net of plans in surplus with assets totalling $35 million (31 December 2017: $40 million)

The Bank Group's expected contribution to its defined benefit pension plans in 2020 is $78 million

	2019			2018		
	Assets $million	**Obligations $million**	**Total $million**	Assets $million	Obligations $million	Total $million
As at 31 December 2018	**2,410**	**(2,796)**	**(386)**			
Discontinued operations	**(451)**	**507**	**56**			
As at 1 January	**1,959**	**(2,289)**	**(330)**	2,592	(3,035)	(443)
Contributions[1]	**100**	**-**	**100**	144	(1)	143
Current service cost[2]	**-**	**(26)**	**(26)**	-	(67)	(67)
Past service cost and curtailments	**-**	**(1)**	**(1)**	-	(2)	(2)
Settlement costs	**-**	**-**	**-**	-	(1)	(1)
Interest cost on pension plan liabilities	**-**	**(70)**	**(70)**	-	(79)	(79)
Interest income on pension plan assets	**59**	**-**	**59**	68	-	68
Benefits paid out[2]	**(138)**	**138**	**-**	(168)	168	-
Actuarial gains/(losses)[3]	**139**	**(277)**	**(138)**	(113)	94	(19)
Exchange rate adjustment	**2**	**(13)**	**(11)**	(113)	127	14
As at 31 December	**2,121**	**(2,538)**	**(417)**	2,410	(2,796)	(386)

1 Includes employee contributions of nil (31 December 2018: $1 million)

2 Includes administrative expenses paid out of plan assets of $1 million (31 December 2018: $2 million)

3 Actuarial loss on obligation comprises $256 million loss (31 December 2018: $114 million loss) from financial assumption changes, $3 million gain (31 December 2018: nil) from demographic assumption changes and $24 million loss (31 December 2018: $20 million loss) from experience

Company

Retirement benefit obligations comprise:

	2019 $million	2018 $million
Defined benefit plans obligation	**385**	323
Defined contribution plans obligation	**(2)**	1
Net obligation	**383**	324

Retirement benefit charge comprises:

	2019 $million	2018 $million
Defined benefit plans	**32**	40
Defined contribution plans	**124**	131
Charge against profit	**156**	171

UK Fund

See the Bank Group section on the UK Fund in this note (page 248). There are no differences between Bank Group and Company in respect of the Fund.

Overseas Plans

The principal overseas defined benefit arrangements operated by the Company are in Germany, Jersey, India, United Arab Emirates (UAE) and the United States of Americas (US).

All Plans

The disclosures required under IAS 19 have been calculated by qualified independent actuaries based on the most recent full actuarial valuations updated, where necessary, to 31 December 2019.

Notes to the financial statements continued

The financial assumptions used at 31 December 2019 as shown below. Sensitivities are recorded on page 252 of the Bank Group accounts and those for non-UK Fund plans are applicable in proportion to the lower liabilities of the Company.

	Funded plans			
	UK Fund		Overseas Plans[1]	
	2019 %	2018 %	2019 %	2018 %
Discount rate	**2.0**	2.8	**1.1 – 7.0**	1.8-7.6
Price inflation	**2.1**	2.1	**1.5 – 4.0**	1.7-5.0
Salary increases	**n/a**	n/a	**3.0 – 7.0**	2.1-7.0
Pension increases	**2.1**	2.1	**0.0 – 3.0**	0.0-3.2

1 The range of assumptions shown is for the main funded defined benefit overseas plans in Germany, India, Jersey and the US. These comprise around 85 per cent of the total liabilities of funded overseas plans

	Unfunded plans			
	US Post-retirement medical[1]		Other[1]	
	2019 %	2018 %	2019 %	2018 %
Discount rate	**3.4**	4.4	**2.0 – 7.0**	2.8-7.6
Price inflation	**2.5**	2.5	**2.1 – 4.0**	2.1-5.0
Salary increases	**n/a**	n/a	**4.0 – 7.0**	4.0-7.0
Pension increases	**n/a**	n/a	**0.0 – 2.1**	0.0-2.1
Post-retirement medical rate	**8% in 2019 reducing by 1% per annum to 5% in 2022**	9% in 2018 reducing by 1% per annum to 5% in 2022	**n/a**	n/a

1 The range of assumptions shown is for the main unfunded plans in India, UAE and the UK. These comprise over 85 per cent of the total liabilities of unfunded plans

Fund values:

The fair value of assets and present value of liabilities of the plans attributable to defined benefit members were:

	2019				2018			
	Funded plans		Unfunded plans		Funded plans		Unfunded plans	
At 31 December	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million
Equities	**102**	**141**	**N/A**	**N/A**	166	112	N/A	N/A
Government bonds	**956**	**106**	**N/A**	**N/A**	762	112	N/A	N/A
Corporate bonds	**189**	**61**	**N/A**	**N/A**	147	52	N/A	N/A
Absolute return Fund	**158**	**-**	**N/A**	**N/A**	147	-	N/A	N/A
Hedge funds[1]	**100**	**-**	**N/A**	**N/A**	110	-	N/A	N/A
Insurance linked funds[1]	**37**	**-**	**N/A**	**N/A**	36	-	N/A	N/A
Opportunistic credit[1]	**-**	**-**	**N/A**	**N/A**	15	-	N/A	N/A
Property	**75**	**-**	**N/A**	**N/A**	44	-	N/A	N/A
Derivatives	**13**	**3**	**N/A**	**N/A**	(7)	3	N/A	N/A
Cash and equivalents	**77**	**51**	**N/A**	**N/A**	136	12	N/A	N/A
Others[1]	**8**	**20**	**N/A**	**N/A**	9	31	N/A	N/A
Total fair value of assets[2]	**1,715**	**382**	**N/A**	**N/A**	1,565	322	N/A	N/A
Present value of liabilities	**(1,832)**	**(443)**	**(16)**	**(191)**	(1,615)	(408)	(17)	(170)
Net pension plan obligation	**(117)**	**(61)**	**(16)**	**(191)**	(50)	(86)	(17)	(170)

1 Unquoted assets

2 Self investment is monitored closely and is less than $1 million of Standard Chartered equities and bonds for 2019 (31 December 2018: <$1 million). Self-investment is only allowed where it is not practical to exclude it – for example through investment in index-tracking funds where the Bank is a constituent of the relevant index

Notes to the financial statements continued

The pension cost for defined benefit plans was:

2019	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
Current service cost	-	12	-	9	21
Past service cost and curtailments[1]	-	2	-	(2)	-
Interest income on pension plan assets	(43)	(14)	-	-	(57)
Interest on pension plan liabilities	44	17	1	6	68
Total charge/(credit) to profit before deduction of tax	1	17	1	13	32
Net gain on plan assets[2]	(86)	(35)	-	-	(121)
Losses/(gains) on liabilities	196	41	(2)	21	256
Total losses/(gains) recognised directly in statement of comprehensive income before tax	110	6	(2)	21	135
Deferred taxation	5	-	-	-	5
Total losses/(gains) after tax	115	6	(2)	21	140

1 Past service costs arose due to plan changes in the US while a past service credits due to plan changes in UAE

2 The actual return on the UK Fund assets was a gain of $126 million and on overseas plan assets was a gain of $49 million

2018	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
Current service cost	1	16	-	9	26
Past service cost and curtailments[1]	2	-	-	-	2
Interest income on pension plan assets	(41)	(14)	-	-	(55)
Interest on pension plan liabilities	44	17	1	5	67
Total charge/(credit)to profit before deduction of tax	6	19	1	14	40
Return on plan assets excluding interest income[2]	67	21	-	-	88
(Gains)/losses on liabilities	(76)	(33)	(2)	1	(110)
Total (gains)/losses recognised directly in statement of comprehensive income before tax	(9)	(12)	(2)	1	(22)
Deferred taxation	2	-	-	-	2
Total (gains)/losses after tax	(7)	(12)	(2)	1	(20)

1 The past service cost in the UK Fund is due to the impact of the Lloyds judgement on 26 October 2018 confirming the requirement for UK DB pension schemes to equalise the impact of Guaranteed Minimum Pensions (GMPs) for males and females.

2 The actual return on the UK fund assets was a loss of $26 million and on overseas plan assets was a loss of $7 million

Movement in the defined benefit pension plans and post-retirement medical deficit during the year comprise:

	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
Deficit as at 1 January 2019	(50)	(86)	(17)	(170)	(323)
Contributions	44	33	-	16	93
Current service cost	-	(12)	-	(9)	(21)
Past service cost and curtailments	-	(2)	-	2	-
Net interest on the net defined benefit asset/liability	(1)	(3)	(1)	(6)	(11)
Actuarial (losses)/gains	(110)	(6)	2	(21)	(135)
Exchange rate adjustment	-	(2)	-	(3)	(5)
Other[2]	-	17	-	-	17
Deficit as at 31 December 2019[1]	(117)	(61)	(16)	(191)	(385)

1 The deficit total of $385 million is made up of plans in deficit of $395 million (2018: $331 million) net of plans in surplus with assets totalling $10 million (2018: $8 million)

2 Due to an internal restructuring in 2019, liabilities of $18 million relating to current employees in the defined benefit pension plan in Germany were moved out of the Company. In addition, assets of $3 million and liabilities of $4 million in respect of the pension plan in Switzerland were moved into the Company during 2019

Notes to the financial statements continued

	Funded plans		Unfunded plans		
	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million	Total $million
Deficit as at 1 January 2018	(120)	(95)	(18)	(175)	(408)
Contributions	62	15	-	14	91
Current service cost	(1)	(16)	-	(9)	(26)
Past service cost and curtailments	(2)	-	-	-	(2)
Net interest on the net defined benefit asset/liability	(3)	(4)	(1)	(4)	(12)
Actuarial gains/(losses)	9	12	2	(1)	22
Exchange rate adjustment	5	2	-	5	12
Deficit as at 31 December 2018[1]	(50)	(86)	(17)	(170)	(323)

1 The deficit total of $323 million is made up of plans in deficit of $331 million (2017: $413 million) net of plans in surplus with assets totalling $8 million (2017: $5 million)

The Company's expected contribution to its defined benefit pension plans in 2020 is $73 million

	2019			2018		
	Assets $million	**Obligations $million**	**Total $million**	Assets $million	Obligations $million	Total $million
At 1 January	**1,887**	**(2,210)**	**(323)**	2,060	(2,468)	(408)
Contributions[1]	**93**	**-**	**93**	91	-	91
Current service cost[2]	**-**	**(21)**	**(21)**	-	(26)	(26)
Past service cost and curtailments	**-**	**-**	**-**	-	(2)	(2)
Interest cost on pension plan liabilities	**-**	**(68)**	**(68)**	-	(67)	(67)
Interest income on pension plan assets	**57**	**-**	**57**	55	-	55
Benefits paid out[2]	**(122)**	**122**	**-**	(129)	129	-
Actuarial gains/(losses)[3]	**121**	**(256)**	**(135)**	(87)	109	22
Other[4]	**3**	**14**	**17**	2	(2)	-
Exchange rate adjustment	**58**	**(63)**	**(5)**	(105)	117	12
At 31 December	**2,097**	**(2,482)**	**(385)**	1,887	(2,210)	(323)

1 Includes employee contributions of nil (31 December 2018: $nil million)

2 Includes administrative expenses paid out of plan assets of $1 million (31 December 2018: $1 million)

3 Actuarial loss on obligation comprises $253 million loss (31 December 2018: $118 million gain) from financial assumption changes, $3 million gain (31 December 2018: nil) from demographic assumption changes and $6 million loss (31 December 2018: $9 million loss) from experience

4 Due to an internal restructuring in Q1 2019, liabilities of $18 million relating to current employees in the defined benefit pension plan in Germany were moved out of the Company. In addition, assets of $3 million and liabilities of $4 million in respect of the pension plan in Switzerland were moved into the Company during 2019

30. Share-based payments

Accounting policy

The Group operates equity-settled and cash-settled share-based compensation plans. The fair value of the employee services (measured by the fair value of the options granted) is measured by the fair value of the options granted is recognised as an expense. For deferred share awards granted as part of an annual performance award, the expense is recognised over the period from the start of the performance period to the vesting date. For example, the expense for awards granted in 2020 in respect of 2019 performance, which vest in 2021-2023, is recognised as an expense over the period from 1 January 2019 to the vesting dates in 2021-2023. For all other awards, the expense is recognised over the period from the date of grant to the vesting date.

For equity-settled awards, the total amount to be expensed over the vesting period is determined by reference to the fair value of the shares and options at the date of grant, which excludes the impact of any non-market vesting conditions (for example, profitability and growth targets). The fair value of equity instruments granted is based on market prices, if available, at the date of grant. In the absence of market prices, the fair value of the instruments is estimated using an appropriate valuation technique, such as a binomial option pricing model. Non-market vesting conditions are included in assumptions about the number of shares and options that are expected to vest.

At each balance sheet date, the Group revises its estimates of the number of shares and options that are expected to vest. It recognises the impact of the revision of original estimates, if any, in the income statement, and a corresponding adjustment to equity over the remaining vesting period. Forfeitures prior to vesting attributable to factors other than the failure to satisfy service conditions and non-market vesting condition are treated as a cancellation and the remaining unamortised charge is debited to the income statement at the time of cancellation. The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium when the options are exercised.

Cash-settled awards are revalued at each balance sheet date and a liability recognised on the balance sheet for all unpaid amounts, with any changes in fair value charged or credited to staff costs in the income statement until the awards are exercised. Where forfeitures occur prior to vesting that are attributable to factors other than a failure to satisfy service conditions or market-based performance conditions, the cumulative charge incurred up to the date of forfeiture is credited to the income statement. Any revaluation related to cash-settled awards is recorded as an amount due from subsidiary undertakings.

The Group operates a number of share-based arrangements for its executive directors and employees. Details of the share-based payment charge are set out below.

	2019[1]			2018[1]		
	Cash $million	Equity $million	Total $million	Cash $million	Equity $million	Total $million
Deferred share awards	11	75	86	3	80	83
Other share awards	7	44	51	2	55	57
Discontinued operations	4	2	6	(4)	27	23
Total share-based payments	22	121	143	1	162	163

[1]No forfeiture assumed

2011 Standard Chartered Share Plan (the '2011 Plan')

The 2011 Plan was approved by shareholders in May 2011 and is the Group's main share plan. Since approval, it has been used to deliver various types of share awards:

- Long Term Incentive Plan (LTIP) awards: granted with vesting subject to performance measures. Performance measures attached to awards granted previously include: total shareholder return (TSR); return on equity (RoE) with a Common Equity Tier 1 (CET1) underpin; strategic measures; earnings per share (EPS) growth; and return on risk-weighted assets (RoRWA). Each measure is assessed independently over a three-year period. Awards granted from 2016 have an individual conduct gateway requirement that results in the award lapsing if not met
- Deferred awards are used to deliver the deferred portion of variable remuneration, in line with both market practice and regulatory requirements. These awards vest in instalments on anniversaries of the award date specified at the time of grant. Deferred awards are not subject to any plan limit. This enables the Group to meet regulatory requirements relating to deferral levels, and is in line with market practice
- Restricted share awards, made outside of the annual performance process as replacement buy-out awards to new joiners who forfeit awards on leaving their previous employers, vest in instalments on the anniversaries of the award date specified at the time of grant. This enables the Group to meet regulatory requirements relating to buy-outs, and is in line with market practice. In line with similar plans operated by our competitors, restricted share awards are not subject to an annual limit and do not have any performance measures

Under the 2011 Plan, no grant price is payable to receive an award. The remaining life of the 2011 Plan during which new awards can be made is two years.

Valuation – LTIP awards

The vesting of awards granted in both 2018 and 2019 is subject to relative TSR performance measures and achievement of a strategic scorecard. The vesting of awards granted in 2018 is subject to the satisfaction of RoE, and the vesting of awards granted in 2019 is subject to the satisfaction of RoTE, in both cases subject to a capital CET1 underpin). The fair value of the TSR component is calculated using the probability of meeting the measures over a three-year performance period, using a Monte Carlo simulation model. The number of shares expected to vest is evaluated at each reporting date, based on the expected performance against the RoE and strategic measures in the scorecard, to determine the accounting charge.

No dividend equivalents accrue for the LTIP awards made in 2018 or 2019 and the fair value takes this into account, calculated by reference to market consensus dividend yield.

	31.12.19	31.12.18
Grant date	11 March	9 March
Share price at grant date (£)	6.11	7.78
Vesting period (years)	3-7	3-7
Expected divided yield (%)	4.2	5.0
Fair value (ROTE) (£)	2.02, 2.02	2.59, 2.59
Fair value (TSR) (£)	0.97, 0.91	1.14, 1.11
Fair value (Strategic) (£)	2.02, 2.02	2.59, 2.59

Valuation – deferred shares and restricted shares

The fair value for deferred awards which are not granted to material risk takers is based on 100 per cent of the face value of the shares at the date of grant as the share price will reflect expectations of all future dividends. For awards granted to material risk takers in 2018 and 2019, the fair value of awards takes into account the lack of dividend equivalents, calculated by reference to market consensus dividend yield.

Notes to the financial statements continued

Deferred share awards

	31.12.19			
Grant date	24 June		11 March	
Share price at grant date (£)	7.03		6.11	
Vesting period (years)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)
1-3 years	N/A,4.2,4.2	7.03,6.47,6.21	N/A,4.2,4.2	6.11,5.62,5.40
1-5 years			4.2,4.2	5.29,5.40
3-7 years			4.2,4.2	4.77,4.97

	31.12.18			
Grant date	18 June		9 March	
Share price at grant date (£)	7.12		7.78	
Vesting period (years)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)
1-3 years	N/A, 5.0, 5.0	7.12,6.45,6.15	N/A, 5.0, 5.0	7.78,7.06,6.73
1-5 years	5.0	6.00	5.0,5.0	6.74,6.58
3-7 years			5.0,5.0	6.11,5.82

Other restricted share awards

	31.12.19							
Grant date	28 November		1 October		24 June		11 March	
Share price at grant date (£)	7.04		6.84		7.03		6.11	
Vesting period (years)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)
1 year	4.2	6.75	4.2	6.57	4.2	6.74	4.2	5.86,5.62,5.74
2 years	4.2	6.48	4.2	6.30	4.2	6.47	4.2	5.62,5.40
2-3 years								
3 years	4.2	6.22	4.2	6.05	4.2	6.21	4.2	5.40
4 years			4.2	5.80	4.2	5.96	4.2	5.18
5 years			4.2	5.57	4.2	5.72		

	31.12.18							
Grant date	28 November		2 October		18 June		9 March	
Share price at grant date (£)	6.11		6.16		7.12		7.78	
Vesting period (years)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)
1 year	5.0	5.82	5.0	5.86	5.0	6.78,6.45	5.0	7.41
2 years	5.0	5.54	5.0	5.58	5.0	6.45,6.15	5.0	7.06
2-3 years	5.0	5.41	-	-	-	-	-	-
3 years	5.0	5.28	5.0	5.32	5.0	6.15,5.85	5.0	6.72
4 years	-	-	5.0	5.06	5.0	5.57	5.0	6.40
5 years	-	-	5.0	4.82	-	-	5.0	6.10

2001 Performance Share Plan (2001 PSP) – closed

The Group's previous plan for delivering performance shares was the 2001 PSP. There are no outstanding vested awards under this plan. This plan is closed and no further awards will be granted under this plan.

All Employee Sharesave Plans

2013 Sharesave Plan

Under the 2013 Sharesave Plan, employees may open a savings contract. Within a maturity period of six months after the third anniversary, employees may purchase ordinary shares in the Company at a discount of up to 20 per cent on the share price at the date of invitation (this is known as the 'option exercise price'). There are no performance measures attached to options granted under the 2013 Sharesave Plan and no grant price is payable to receive an option. In some countries in which the Group operates, it is not possible to operate Sharesave plans, typically due to securities law and regulatory restrictions. In these countries, where possible, the Group offers an equivalent cash-based plan to its employees.

The 2013 Sharesave Plan was approved by shareholders in May 2013 and all future Sharesave invitations are made under this plan. The remaining life of the 2013 Sharesave Plan is three years.

Valuation – Sharesave

Options under the Sharesave plans are valued using a binomial option-pricing model. The same fair value is applied to all employees including executive directors. The fair value per option granted and the assumptions used in the calculation are as follows:

All Employee Sharesave Plan (Sharesave)

	31.12.19	31.12.18
Grant date	1 October	2 October
Share price at grant date (£)	6.84	6.16
Exercise price (£)	4.98	5.13
Vesting period (years)	3	3
Expected volatility (%)	25.3	33.8
Expected option life (years)	3.33	3.33
Risk-free rate (%)	0.26	0.87
Expected dividend yield (%)	4.2	5.0
Fair value (£)	1.62	1.39

The expected volatility is based on historical volatility over the last three years, or three years prior to grant. The expected life is the average expected period to exercise. The risk-free rate of return is the yield on zero-coupon UK Government bonds of a term consistent with the assumed option life. The expected dividend yield is based on historical dividend for three years prior to grant.

Limits

An award shall not be granted under the 2011 Plan in any calendar year if, at the time of its proposed grant, it would cause the number of Standard Chartered PLC ordinary shares allocated in the period of 10 calendar years ending with that calendar year under the 2011 Plan and under any other discretionary share plan operated by Standard Chartered PLC to exceed such number as represents 5 per cent. of the ordinary share capital of Standard Chartered PLC in issue at that time.

An award shall not be granted under the 2011 Plan or 2013 Sharesave Plan in any calendar year if, at the time of its proposed grant, it would cause the number of Standard Chartered PLC ordinary shares allocated in the period of 10 calendar years ending with that calendar year under the 2011 Plan or 2013 Sharesave Plan and under any other employee share plan operated by Standard Chartered PLC to exceed such number as represents 10 per cent. of the ordinary share capital of Standard Chartered PLC in issue at that time.

An award shall not be granted under the 2011 Plan or 2013 Sharesave Plan in any calendar year if, at the time of its proposed grant, it would cause the number of Standard Chartered PLC ordinary shares which may be issued or transferred pursuant to awards then outstanding under the 2011 Plan or 2013 Sharesave Plan as relevant to exceed such number as represents 10 per cent. of the ordinary share capital of Standard Chartered PLC in issue at that time.

The number of Standard Chartered PLC ordinary shares which may be issued pursuant to awards granted under the 2011 Plan in any 12-month period must not exceed such number as represents 1 per cent of the ordinary share capital of Standard Chartered PLC in issue at that time. The number of Standard Chartered PLC ordinary shares which may be issued pursuant to awards granted under the 2013 Sharesave Plan in any 12-month period must not exceed such number as represents 1 per cent of the ordinary share capital of Standard Chartered PLC in issue at that time.

Reconciliation of share award movements for the year to 31 December 2019

	2011 Plan [1]				
	LTIP	Deferred / Restricted shares	PSP [1]	Sharesave	Weighted average Sharesave exercise price (£)
Outstanding as at 1 January 2019	26,636,997	26,166,597	4,270	13,712,863	5.48
Granted[2]	2,653,288	12,726,643	-	2,617,213	-
Lapsed	(2,797,229)	(1,390,240)	-	(1,815,091)	5.50
Exercised	(5,943,008)	(11,973,969)	(4,270)	(4,316,867)	5.49
Outstanding as at 31 December 2019	20,550,048	25,529,031	-	10,198,118	5.35
Exercisable as at 31 December 2019	52,235	2,347,451	-	1,227,719	5.30
Range of exercise prices (£)	-	-	-	4.98 - 6.20	
Intrinsic value of vested but not exercised options ($ million)	0.50	22.30	-	3.05	
Weighted average contractual remaining life (years)	6.85	8.19	-	2.21	
Weighted average share price for awards exercised during the period (£)	6.37	6.34	6.95	6.72	

[1]Employees do not contribute towards the cost of these awards
[2] 12,027,124 (DRSA/RSA) granted on 11 March 2019, 183,997 (DRSA/RSA) granted as notional dividend on 08 March 2019, 2,409,838 (LTIP) granted on 11 March 2019, 229,491 (LTIP) granted as Notional dividend on 08 March 2019, 266,192 (DRSA/RSA) granted on 24 June 2019, 68,048 (DRSA/RSA) granted as notional dividend on 09 August 2019, 13,959 (MLTIP/LTIP) granted as notional dividend on 09 August 2019, 122,464 (DRSA/RSA) granted on 01 October 2019, 2,617,213 (Sharesave) granted on 01 October 2019, 58,818 (DRSA/RSA) granted on 28 November 2019.
[3] For Sharesave granted in 2019, the exercise price is £4.98 per share, which was a 20 per cent discount to the closing share price on 30 August 2019. The closing share price on 30 August 2019 was £6.22.

Reconciliation of share award movements for the year to 31 December 2018

	2011 Plan [1]						
	Performance shares	Deferred / Restricted shares	PSP [1]	RSS[1]	SRSS[1]	Sharesave	Weighted average Sharesave exercise price (£)
Outstanding as at 1 January 2018	25,063,044	22,774,595	9,348	185,516	1,249	12,807,185	6.06
Granted[2,3]	2,475,693	13,494,145	-	-	-	4,769,232	5.13
Lapsed	(885,427)	(1,359,446)	(553)	(50,484)	-	(2,995,097)	7.36
Exercised	(16,313)	(8,742,697)	(4,525)	(135,032)	(1,249)	(868,457)	5.57
Outstanding as at 31 December 2018	26,636,997	26,166,597	4,270	-	-	13,712,863	5.48
Exercisable as at 31 December 2018	41,490	3,485,997	4,270	-	-	3,478,423	5.57
Range of exercise prices (£)[3]						5.13 – 6.20	
Intrinsic value of vested but not exercised options ($ million)	0.04	2.58	0.02	-	-	-	
Weighted average contractual remaining life (years)	7.43	8.20	0.48			2.04	
Weighted average share price for awards exercised during the period (£)	7.44	7.18	7.79	7.84	7.85	6.20	

[1] Employees do not contribute towards the cost of these awards
[2] 12,508,120 (DRSA/RSA) granted on 9 March 2018, 39,945 (notional dividend) granted on 11 March 2018, 63,350 (notional dividend) granted on 13 March 2018, 37,774 (notional dividend) granted on 19 March 2018, 2,076,370 (LTIP) granted on 9 March 2018, 216,127 (notional dividend) granted on 11 March 2018, 22,317 (notional dividend) granted on 13 March 2018, 815 (notional dividend) granted on 19 March 2018, 246,367 (DRSA/RSA) granted on 18 June 2018, 165,856 (LTIP) and 74,711 (DRSA/RSA) granted on 22 Aug 2018, and 423,038 (DRSA/RA) and 4,769,917 (Sharesave) granted on 2 October 2018, and 254,842 (DRSA/RSA) granted on 28 November 2018
[3] For Sharesave granted in 2018 the exercise price is £5.13 per share, which was the average of the closing prices over the five days to the invitation date of 3 September. The closing share price on 31 August 2018 was £6.271

Notes to the financial statements continued

31. Investments in subsidiary undertakings, joint ventures and associates

Accounting policy

Subsidiaries

Subsidiaries are all entities, including structured entities, which the Group controls. The Group controls an entity when it is exposed to, and has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the investee. The assessment of power is based on the Group's practical ability to direct the relevant activities of the entity unilaterally for the Group's own benefit and is subject to reassessment if and when one or more of the elements of control change. Subsidiaries are fully consolidated from the date on which the Group effectively obtains control. They are deconsolidated from the date that control ceases, and where any interest in the subsidiary remains, this is remeasured to its fair value and the change in carrying amount is recognised in the income statement.

Associates and joint arrangements

Joint arrangements are where two or more parties either have rights to the assets, and obligations of the joint arrangement (joint operations), or have rights to the net assets of the joint arrangement (joint venture). The Group evaluates the contractual terms of joint arrangements to determine whether a joint arrangement is a joint operation or a joint venture. The Group does not have any contractual interest in joint operations.

An associate is an entity over which the Group has significant influence.

Investments in associates and joint ventures are accounted for by the equity method of accounting and are initially recognised at cost. The Group's investment in associates and joint ventures includes goodwill identified on acquisition (net of any accumulated impairment loss).

The Group's share of its associates' and joint ventures' post-acquisition profits or losses is recognised in the income statement, and its share of post-acquisition movements in other comprehensive income is recognised in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate or a joint venture equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate or joint venture.

Unrealised gains and losses on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. At each balance sheet date, the Group assesses whether there is any objective evidence of impairment in the investment in associates and joint ventures. Such evidence includes a significant or prolonged decline in the fair value of the Group's investment in an associate or joint venture below its cost, among other factors.

Significant accounting estimates and judgements

The Group applies judgement in determining if it has control, joint control or significant influence over subsidiaries, joint ventures and associates respectively. These judgements are based upon identifying the relevant activities of counterparties, being those activities that significantly affect the entities returns, and further making a decision of if the Group has control over those entities, joint control, or has significant influence (being the power to participate in the financial and operating policy decisions but not control them).

These judgements are at times determined by equity holdings, and the voting rights associated with those holdings. However, further considerations including but not limited to board seats, advisory committee members and specialist knowledge of some decision-makers are also taken into account. Further judgement is required when determining if the Group has de-facto control over an entity even though it may hold less than 50 per cent of the voting shares of that entity. Judgement is required to determine the relative size of the Group's shareholding when compared with the size and dispersion of other shareholders.

Impairment testing of investments in associates and joint ventures is performed if there is a possible indicator of impairment. Judgement is used to determine if there is objective evidence of impairment. Objective evidence may be observable data such as losses incurred on the investment when applying the equity method, the granting of concessions as a result of financial difficulty, or breaches of contracts/regulatory fines of the associate or joint venture. Further judgement is required when considering broader indicators of impairment such as losses of active markets or ratings downgrades across key markets in which the associate or joint venture operate.

Impairment testing is based on estimates, including forecasting the expected cash flows from the investments, growth rates, terminal values and the discount rate used in calculation of the present values of those cash flows. The estimation of future cash flows and the level to which they are discounted is inherently uncertain and requires significant judgement.

Business combinations

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, together with the fair value of any contingent consideration payable. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets and contingent liabilities acquired is recorded as goodwill (see Note 16 for details on goodwill recognised by the Group). If the cost of acquisition is less than the fair value of the net assets and contingent liabilities of the subsidiary acquired, the difference is recognised directly in the income statement.
Where the fair values of the identifiable net assets and contingent liabilities acquired have been determined provisionally, or where contingent or deferred consideration is payable, adjustments arising from their subsequent finalisation are not reflected in the income statement if: (i) they arise within 12 months of the acquisition date (or relate to acquisitions completed before 1 January 2014; and (ii) the adjustments arise from better information about conditions existing at the acquisition date (measurement period adjustments). Such adjustments are applied as at the date of acquisition and, if applicable, prior year amounts are restated. All changes that are not measurement period adjustments are reported in income other than changes in contingent consideration not classified as financial instruments, which are accounted for in accordance with the appropriate accounting policy, and changes in contingent consideration classified as equity, which is not remeasured.

Changes in ownership interest in a subsidiary, which do not result in a loss of control, are treated as transactions between equity holders and are reported in equity. Where a business combination is achieved in stages, the previously held equity interest is remeasured at the acquisition date fair value with the resulting gain or loss recognised in the income statement.

Notes to the financial statements continued

In the Company's financial statements, investment in subsidiaries, associates and joint ventures are held at cost less impairment and dividends from pre-acquisition profits received prior to 1 January 2009, if any. Inter-company transactions, balances and unrealised gains and losses on transactions between Group companies are eliminated in the Group accounts.

Investments in subsidiary undertakings	2019 $million	2018 $million
As at 1 January	**13,598**	13,517
Additions	**5,912**[1]	596
Disposals	**(10,412)**[2]	(18)
Impairment	**(483)**	(497)
As at 31 December	**8,615**	13,598

1 Additions includes $2,698 million investment in Standard Chartered Bank (Hong Kong) Limited, $2,590 million investment in Standard Chartered Bank (Singapore) Limited and $283 million investment in Standard Chartered Bank AG

2 Disposals includes $4,226 million investment in Standard Chartered Bank (Hong Kong) Limited, $1,688 million investment in Standard Chartered Bank (China) Limited, $2,685 million investment in Standard Chartered NEA Limited and $1,803 million investment in Standard Chartered Bank (Taiwan) Limited

As at 31 December 2019, the principal subsidiary undertakings, all indirectly held and principally engaged in the business of banking and provision of other financial services, were as follows:

Country and place of incorporation or registration	Main areas of operation	Group interest in ordinary share capital %
Standard Chartered Bank Malaysia Berhad, Malaysia	Malaysia	100
Standard Chartered Private Equity Limited, Hong Kong	Hong Kong	100
Standard Chartered Bank Nigeria Limited, Nigeria	Nigeria	100
Standard Chartered Bank (Singapore) Limited, Singapore	Singapore	100
Standard Chartered Bank (Pakistan) Limited, Pakistan	Pakistan	98.99
Standard Chartered Bank (Thai) Public Company Limited, Thailand	Thailand	99.87
Standard Chartered Bank Kenya Limited, Kenya	Kenya	74.30

A complete list of subsidiary undertaking is included in Note 39.

The Group does not have any material non-controlling interests in any of its subsidiaries except the 25.7 per cent non-controlling interests in Standard Chartered Bank Kenya Limited and non-controlling interest in the preference shares issued by Standard Chartered Bank (Singapore) Limited. Standard Chartered Bank Kenya Limited contributes $20 million (31 December 2018: $21 million) of the profit attributable to non-controlling interests and $111 million (31 December 2018: $108 million) of the equity attributable to non-controlling interests. Standard Chartered Bank (Singapore) Limited has issued preference shares of $1,057 million attributable to non-controlling interest.

While the Group's subsidiaries are subject to local statutory capital and liquidity requirements in relation to foreign exchange remittance, these restrictions arise in the normal course of business and do not significantly restrict the Group's ability to access or use assets and settle liabilities of the Group.

The Group does not have significant restrictions on its ability to access or use its assets and settle its liabilities other than those resulting from the regulatory framework within which the banking subsidiaries operate. These frameworks require banking operations to keep certain levels of regulatory capital, liquid assets, exposure limits and comply with other required ratios. These restrictions are summarised below:

Regulatory and liquidity requirements

The Group's subsidiaries are required to maintain minimum capital, leverage ratios, liquidity and exposure ratios which therefore restrict the ability of these subsidiaries to distribute cash or other assets to the parent company.

The subsidiaries are also required to maintain balances with central banks and other regulatory authorities in the countries in which they operate. As at 31 December 2019, the total cash and balances with central banks was $44 billion (31 December 2018: $58 billion) of which $5 billion (31 December 2018: $8 billion) is restricted.

Statutory requirements

The Group's subsidiaries are subject to statutory requirements not to make distributions of capital and unrealised profits to the parent company, generally to maintain solvency. These requirements restrict the ability of subsidiaries to remit dividends to the Group. Certain subsidiaries are also subject to local exchange control regulations which provide for restrictions on exporting capital from the country other than through normal dividends.

Contractual requirements

The encumbered assets in the balance sheet of the Group's subsidiaries are not available for transfer around the Group.

Share of profit from investment in associates and joint ventures comprises:

	2019 $million	2018 $million
Profit from investment in joint ventures	**48**	26
Profit from investment in associates	**7**	7
Total	**55**	33

Interests in joint ventures

	2019 $million	2018 $million
As at 1 January	**717**	775
Exchange translation difference	**32**	(49)
Expected credit loss, net[1]	**-**	(33)
Share of profit	**48**	26
Share of FVOCI and other reserves	**3**	(2)
Transfer to held for sale assets[2]	**(800)**	-
As at 31 December	**-**	717

1 IFRS 9 transition impact from joint venture is reported here

2 Refer to Note 20 Assets held for sale and associated liabilities where our joint venture PT Bank Permata Tbk (Permata) is disclosed

Interests in associates

	China Bohai Bank		Other		Total	
	2019 $million	2018 $million	**2019 $million**	2018 $million	**2019 $million**	2018 $million
As at 1 January	**1,551**	1,489	**39**	35	**1,590**	1,524
Discontinued operation	**(1,551)**	-	**-**	-	**(1,551)**	-
Continuing operations	**-**	1,489	**39**	35	**39**	1,524
Exchange translation differences	**-**	(95)	**-**	-	**-**	(95)
Expected credit loss, net[1]	**-**	(19)	**-**	-	**-**	(19)
Additions	**-**	-	**1**	-	**1**	-
Share of profits	**-**	205	**7**	7	**7**	212
Disposals	**-**	-	**-**	-	**-**	-
Dividends received	**-**	(64)	**(3)**	(3)	**(3)**	(67)
Share of fair value through other comprehensive income/available-for-sale and Other reserves	**-**	35	**-**	-	**-**	35
Others	**-**	-	**-**	-	**-**	-
As at 31 December	**-**	1,551 -	**44**	39 -	**44**	1,590

1 IFRS 9 transition impact from associates is reported here

Company	**2019 $million**	2018 $million
As at 1 January	**10**	31
Share of loss	**(10)**	-
Assets held for sale	**-**	(21)
As at 31 December	**-**	10

A complete list of the Group's interest in associates and joint ventures is included in Note 39.

32. Structured entities

Accounting policy

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity. Contractual arrangements determine the rights and therefore relevant activities of the structured entity. Structured entities are generally created to achieve a narrow and well-defined objective with restrictions around their activities. Structured entities are consolidated when the substance of the relationship between the Group and the structured entity indicates the Group has power over the contractual relevant activities of the structured entity, is exposed to variable returns, and can use that power to affect the variable return exposure.

In determining whether to consolidate a structured entity to which assets have been transferred, the Group takes into account its ability to direct the relevant activities of the structured entity. These relevant activities are generally evidenced through a unilateral right to liquidate the structured entity, investment in a substantial proportion of the securities issued by the structured entity or where the Group holds specific subordinate securities that embody certain controlling rights. The Group may further consider relevant activities embedded within contractual arrangements such as call options which give the practical ability to direct the entity, special relationships between the structured entity and investors, and if a single investor has a large exposure to variable returns of the structured entity.

Judgement is required in determining control over structured entities. The purpose and design of the entity is considered, along with a determination of what the relevant activities are of the entity and who directs these. Further judgements are made around which investor is exposed to, and absorbs the variable returns of the structured entity. The Group will have to weigh up all of these facts to consider whether the Group, or another involved party is acting as a principal in its own right or as an agent on behalf of others. Judgement is further required in the ongoing assessment of control over structured entities, specifically if market conditions have an effect on the variable return exposure of different investors.

Notes to the financial statements continued

The Group has involvement with both consolidated and unconsolidated structured entities, which may be established by the Group as a sponsor or by a third party.

Interests in consolidated structured entities: A structured entity is consolidated into the Group's financial statements where the Group controls the structured entity, as per the determination in the accounting policy above.

The following table presents the Group's interests in consolidated structured entities.

	2019 $million	restated 2018 $million
Aircraft and ship leasing[1]	-	4,602
Principal and other structured finance	571	996
Total	**571**	5,598

1 Represented to include total non-group assets. Previously only operating lease assets were disclosed.

Interests in unconsolidated structured entities: Unconsolidated structured entities are all structured entities that are not controlled by the Group. The Group enters into transactions with unconsolidated structured entities in the normal course of business to facilitate customer transactions and for specific investment opportunities. An interest in a structured entity is contractual or non-contractual involvement which creates variability of the returns of the Group arising from the performance of the structured entity.

The table below presents the carrying amount of the assets recognised in the financial statements relating to variable interests held in unconsolidated structured entities, the maximum exposure to loss relating to those interests and the total assets of the structured entities. Maximum exposure to loss is primarily limited to the carrying amount of the Group's on-balance sheet exposure to the structured entity. For derivatives, the maximum exposure to loss represents the on-balance sheet valuation and not the notional amount. For commitments and guarantees, the maximum exposure to loss is the notional amount of potential future losses.

	2019					2018				
	Asset-backed securities $million	Structured finance $million	Principal Finance funds $million	Other activities $million	Total $million	Asset-backed securities $million	Structured finance $million	Principal Finance funds $million	Other activities $million	Total $million
Group's interest - assets										
Financial assets held at fair value through profit or loss	395	-	11	99	505	1,094	-	44	247	1,385
Loans and advances/Investment securities at amortised cost	3,286	-	343	251	3,880	2,556	1,403	252	190	4,401
Investment securities (fair value through other comprehensive	3,050	-	-	-	3,050	3,812	-	-	-	3,812
Other assets	-	-	241	-	241	-	-	224	-	224
Total assets	6,731	-	595	350	7,676	7,462	1,403	520	437	9,822
Off-balance sheet	-	-	32	-	32	116	553	-	-	669
Group's maximum exposure to loss	6,731	-	627	350	7,708	7,578	1,956	520	437	10,491
Total assets of structured entities	123,321	-	1,961	7,896	133,178	205,837	2,785	2,537	11,872	223,031

The main types of activities for which the Group utilises unconsolidated structured entities cover synthetic credit default swaps for managed investment funds (including specialised Principal Finance Funds), portfolio management purposes, structured finance and asset-backed securities. These are detailed as follows:

→ **Asset-backed securities (ABS):** The Group also has investments in asset-backed securities issued by third-party sponsored and managed structured entities. For the purpose of market making and at the discretion of ABS trading desk, the Group may hold an immaterial amount of debt securities from structured entities originated by credit portfolio management. This is disclosed in the Asset-backed securities column above

→ **Portfolio management (Group sponsored entities):** For the purposes of portfolio management, the Group purchased credit protection via synthetic credit default swaps from note-issuing structured entities. This credit protection creates credit risk which the structured entity and subsequently the end investor absorbs. The referenced assets remain on the Group's balance sheet as they are not assigned to these structured entities. The Group continues to own or hold all of the risks and returns relating to these assets. The credit protection obtained from the regulatory-compliant securitisation only serves to protect the Group against losses upon the occurrence of eligible credit events and the underlying assets are not derecognised from the Group's balance sheet. The Group does not hold any equity interests in the structured entities but may hold an insignificant amount of the issued notes for market making purposes. This is disclosed in the ABS section above. The proceeds of the notes' issuance are typically held as cash collateral in the issuer's account operated by a trustee or invested in AAA-rated government-backed securities to collateralise the structured entities swap obligations to the Group, and to repay the principal to investors at maturity. The structured entities reimburse the Group on actual losses incurred, through the use of the cash collateral or realisation of the collateral security. Correspondingly, the structured entities write down the notes issued by an equal amount of the losses incurred, in reverse order of seniority. All funding is committed for the life of these vehicles and the Group has no indirect exposure in respect of the vehicles'

liquidity position. The Group has reputational risk in respect of certain portfolio management vehicles and investment funds either because the Group is the arranger and lead manager or because the structured entities have Standard Chartered branding

→ **Structured finance:** Structured finance comprises interests in transactions that the Group or, more usually, a customer has structured, using one or more structured entities, which provide beneficial arrangements for customers. The Group's exposure primarily represents the provision of funding to these structures as a financial intermediary, for which it receives a lender's return. The transactions largely relate to real estate financing and the provision of aircraft leasing and ship finance

→ **Principal Finance Fund:** The Group's exposure to Principal Finance Funds represents committed or invested capital in unleveraged investment funds, primarily investing in pan-Asian infrastructure, real estate and private equity

→ **Other activities:** Other activities include structured entities created to support margin financing transactions, the refinancing of existing credit and debt facilities, as well as setting up of bankruptcy remote structured entities

33. Cash flow statement

Adjustment for non-cash items and other adjustments included within income statement

	Group		Company	
	2019 $million	2018 $million	**2019 $million**	2018 $million
Amortisation of discounts and premiums of investment securities	**(575)**	(375)	**(317)**	70
Interest expense on subordinated liabilities	**410**	672	**553**	624
Interest expense on senior debt securities in issue	**34**	103	**56**	-
Other non-cash items	**465**	669	**790**	367
Pension costs for defined benefit schemes	**38**	81	**32**	40
Share-based payment costs	**137**	163	**106**	134
Impairment losses on loans and advances and other credit risk provisions	**699**	653	**457**	542
Dividend income from subsidiaries	**-**	-	**-**	(941)
Other impairment	**34**	164	**718**	510
(Loss)/profit from associates and joint ventures	**(55)**	(238)	**10**	-
Total	**1,187**	**1,892 -**	**2,405**	**1,346**

Change in operating assets

	Group		Company	
	2019 $million	2018 $million	**2019 $million**	2018 $million
(Increase)/decrease in derivative financial instruments	**(608)**	371	**32**	384
Decrease/(increase) in debt securities, treasury bills and equity shares held at fair value through profit or loss	**1,390**	3,963	**(240)**	(51)
(Increase)/decrease in loans and advances to banks and customers	**(8,851)**	(16,901)	**(8,596)**	22,353
Net increase in prepayments and accrued income	**(147)**	(252)	**(61)**	(143)
Net (increase)/decrease in other assets	**(42,397)**	(1,970)	**36,006**	(34,347)
Total	**(50,613)**	**(14,789) -**	**27,141**	**(11,804)**

Change in operating liabilities

	Group		Company	
	2019 $million	2018 $million	**2019 $million**	2018 $million
Increase/(decrease) in derivative financial instruments	**966**	(484)	**148**	(624)
Net increase/(decrease) in deposits from banks, customer accounts, debt securities in issue, Hong Kong notes in circulation and short positions	**17,831**	31,204	**13,906**	(20,948)
Decrease in accruals and deferred income	**(19)**	21	**(228)**	(1,122)
Increase in amount due to parents/subsidiaries/other related	**31,574**	3,145	**2,716**	7,151
Net increase/(decrease) in other liabilities	**11,072**	4,175	**(49,999)**	42,485
Total	**61,424**	**38,061 -**	**(33,457)**	**26,942**

Disclosures

	Group		Company	
	2019	2018	2019	2018
	$million	$million	$million	$million
Subordinated debt (including accrued interest):				
Opening balance	**13,259**	15,718 -	**12,479**	14,773
Proceeds from the issue	**2,054**	- -	**1,000**	-
Interest paid	**(1,665)**	(637) -	**(1,629)**	(584)
Repayment	**(1,024)**	(2,244) -	**(1,000)**	(2,162)
Foreign exchange movements	**4**	15 -	**13**	20
Fair value changes	**36**	(100) -	**9**	(84)
Other	**379**	507 -	**1,630**	516
Closing balance	**13,043**	13,259 -	**12,502**	12,479

	Group		Company	
	2019	2018	2019	2018
	$million	$million	$million	$million
Senior debt (including accrued interest):				
Opening balance	**4,573**	3,401	**2,095**	-
Proceeds from the issue	**598**	5,214	**431**	3,765
Interest paid	**(45)**	(151)	**(45)**	(128)
Repayment	**(1,821)**	(3,888)	**(1,736)**	(2,781)
Foreign exchange movements	**-**	(148)	**-**	(31)
Fair value changes	**-**	(755)	**-**	(578)
Other	**(2,141)**	900	**(3)**	1,848
Closing balance	**1,164**	4,573	**742**	2,095

34. Cash and cash equivalents

Accounting policy

For the purposes of the cash flow statement, cash and cash equivalents comprise cash, on demand and overnight balances with central banks (unless restricted) and balances with less than three months’ maturity from the date of acquisition, including treasury bills and other eligible bills, loans and advances to banks, and short-term government securities.

The following balances with less than three months' maturity from the date of acquisition have been identified by the Group as being cash and cash equivalents.

	Group		Company	
	2019	2018	2019	2018
	$million	$million	$million	$million
Cash and balances at central banks	**43,926**	57,511	**34,734**	44,749
Less: restricted balances	**(4,946)**	(8,152)	**(2,872)**	(2,241)
Treasury bills and other eligible bills	**3,676**	15,393	**614**	618
Loans and advances to banks	**15,597**	30,444	**7,994**	15,961
Trading securities	**1,902**	2,299	**1,403**	817
Total	**60,155**	97,495	**41,873**	59,904

Restricted balances comprise minimum balances required to be held at central banks.

35. Related party transactions

Directors and officers

Details of directors' remuneration and interests in shares are disclosed in Note 38 Remuneration of Directors.

IAS 24 *Related party disclosures* requires the following additional information for key management compensation. Key management comprises non-executive directors, executive directors of Standard Chartered PLC, the Court directors of Standard Chartered Bank and the persons discharging managerial responsibilities (PDMR) of Standard Chartered PLC.

	31.12.19 $million	restated 31.12.18[1] $million
Salaries, allowances and benefits in kind [2]	**37**	33
Share-based payments	**28**	29
Bonuses paid or receivable[2]	**4**	10
	69	72

1 Following the appointment to the Court of all the directors of the Company's ultimate holding company, Standard Chartered PLC, the Company has aligned the related party principals regarding key management personnel with that of the ultimate holding company. The Company has therefore disclosed any related party interests with all directors and members of the management team. Prior year numbers have been represented accordingly
2 Cash bonuses for 2019 receivable within 12 months have been included as short-term employee benefits alongside salaries, allowances and benefits in kind in accordance with IAS24

Transactions with directors and others

As at 31 December 2019, the total amounts to be disclosed under the Companies Act 2006 (the Act) and the Listing Rules of the Stock Exchange of Hong Kong Limited (HK Listing Rules) about loans to directors were as follows:

	31.12.19		31.12.18	
	Number	$million	Number	$million
Directors	**3**	**-**	1	-

The loan transactions provided to the directors of Standard Chartered PLC were a connected transaction under Chapter 14A of the HK Listing Rules. It was fully exempt as financial assistance under Rule 14A.87(1), as it was provided in our ordinary and usual course of business and on normal commercial terms.

Other than as disclosed in these financial statements, there were no other transactions, arrangements or agreements outstanding for any director of the Company which have to be disclosed under the Act.

Group

	31.12.19				31.12.18[1]			
	Due from/to subsidiary undertakings and other related parties $million	Derivative financial instruments $million	Subordinated liabilities and other borrowed funds $million	Debt Securities $million	Due from/to subsidiary undertakings and other related parties $million	Derivative financial instruments $million	Subordinated liabilities and other borrowed funds $million	Debt Securities $million
Assets								
Ultimate parent company	**1,272**	**973**	**-**	**-**	216	1,361	-	-
Fellow subsidiaries of SC PLC Group	**9,865**	**4,290**	**-**	**719**	1,138	3	-	-
	11,137	**5,263**	**-**	**719**	1,354	1,364	-	-
Liabilities								
Ultimate parent company	**12,534**	**447**	**11,709**	**2,128**	17,314	242	11,713	-
Fellow subsidiaries of SC PLC Group	**22,820**	**3,923**	**-**	**2**	686	2	-	-
	35,354	**4,370**	**11,709**	**2,130**	18,000	244	11,713	-

1 Prior year comparatives have been re-presented

	31.12.19				31.12.18			
	Fees and commission income $million	Fees and commission expense $million	Interest income $million	Interest expense $million	Fees and commission income $million	Fees and commission expense $million	Interest income $million	Interest expense $million
Ultimate parent company	**-**	**-**	**8**	**933**	-	-	-	952
Fellow subsidiaries of SC PLC Group	**83**	**131**	**122**	**211**	42	114	17	(15)
	83	**131**	**130**	**1,144**	42	114	17	937

The Group contributes to employee pension funds and provides banking services free of charge to the UK fund. For details of the funds (see Note 29).

Notes to the financial statements continued

The Group's employees participate in the Standard Chartered PLC group's share-based compensation plans (see Note 30). The cost of the compensation is recharged from Standard Chartered PLC to the Group's branches and subsidiaries.

The following transactions with related parties are on an arm's-length basis.

Associate and joint ventures

	31.12.19			31.12.18			
	Clifford Capital $million	PT Bank Permata $million	Seychelles International Mercantile Banking Corporation Limited $million	China Bohai Bank $million	Clifford Capital $million	PT Bank Permata $million	Seychelles International Mercantile Banking Corporation Limited $million
Assets							
Loans and advances[1]	-	2	-		22	2	-
Debt securities[1]	21	58	-		-	56	-
Derivative assets	-	-	-	2	-	-	-
Total assets	21	60	-	2	22	58	-
Liabilities							
Deposits	-	29	3	266	-	35	11
Total liabilities	-	29	3	266	-	35	11
Loan commitments and other guarantees[2]	50	3	-		-	-	-
Total net income	2	5	-	6	-	6	-

1 Prior year comparatives have been re-presented

2 The maximum loan commitments and other guarantees during the year was $53 million

Company

	31.12.2019				31.12.2018[1]			
	Due from/to subsidiary undertakings and other related parties $million	Derivative financial instruments $million	Subordinated liabilities and other borrowed funds $million	Debt securities $million	Due from/to subsidiary undertakings and other related parties $million	Derivative financial instruments $million	Subordinated liabilities and other borrowed funds $million	Debt securities $million
Assets								
Ultimate parent company	1,272	973	-	-	216	1,361	-	-
Subsidiaries and fellow subsidiaries of SC PLC Group	20,654	5,487	-	1,732	11,809	4,042	-	2,380
	21,926	6,460	-	1,732	12,025	5,403	-	2,380
Liabilities								
Ultimate parent company	12,528	447	11,709	2,128	17,314	242	11,713	-
Subsidiaries and fellow subsidiaries of SC PLC Group	30,829	4,898	-	2	23,383	3,498	-	3
	43,357	5,345	11,709	2,130	40,697	3,740	11,713	3

1 Prior year comparatives have been restated

Notes to the financial statements continued

	31.12.19				
	Fees and commission income $million	Fees and commission expense $million	Interest income $million	Interest expense $million	Dividend income $million
Ultimate parent company	-	-	8	918	-
Subsidiaries and fellow subsidiaries of SC PLC	80	153	245	329	1,984
	80	153	253	1,247	1,984

	31.12.18[1]				
	Fees and commission income $million	Fees and commission expense $million	Interest income $million	Interest expense $million	Dividend income $million
Ultimate parent company	-	-	-	952	-
Subsidiaries and fellow subsidiaries of SC PLC	75	203	184	229	941
	75	203	184	1,181	941

1 Prior year comparatives have been re-presented

As at 31 December 2019, Standard Chartered Bank had created a charge over $86 million (31 December 2018: $83 million) of cash assets in favour of the non-consolidated independent trustee of its employer financed retirement benefit scheme.

The Company contributes to employee pension funds and provides banking services free of charge to the UK fund. For details of the funds see note 29.

The Company's employees participate in the Standard Chartered PLC group's share-based compensation plans (see note 30).

The Company has an agreement with Standard Chartered PLC that in the event of the Company defaulting on its debt coupon interest payments, where the terms of such debt requires it, Standard Chartered PLC shall issue shares as settlement for non-payment of the coupon interest.

36. Post balance sheet events

On 16 January 2020, Standard Chartered Bank issued €750 million 0.850 per cent senior debt due 2028 (callable 2027).

The existence of novel coronavirus (Covid-19) was confirmed in early 2020 and has spread across mainland China and beyond, causing disruption to businesses and economic activity. The Group considers this outbreak to be a non-adjusting post balance sheet event. As the situation is fluid and rapidly evolving, we do not consider it practicable to provide a quantitative estimate of the potential impact of this outbreak on the Group. The impact of this outbreak on the macroeconomic forecasts will be incorporated into the Group's IFRS 9 estimates of expected credit loss provisions in 2020.

37. Auditor's remuneration

Auditor's remuneration is included within other general administration expenses. The amounts paid by the Group to their principal auditor, KPMG LLP and its associates (together KPMG), are set out below. All services are approved by the Group Audit Committee and are subject to controls to ensure the external auditor's independence is unaffected by the provision of other services.

	2019 $million	2018 $million
Audit fees for the Group statutory audit	10.0	9.2
Fees payable to KPMG for other services provided to the Group:		
Audit of Standard Chartered PLC subsidiaries	4.2	8.3
Total audit fees	14.2	17.5
Audit-related services	6.7	7.0
Other assurance services	0.1	0.3
Tax compliance and advisory services	-	0.1
Corporate finance services	0.6	0.2
Total fees payable	21.6	25.1

The following is a description of the type of services included within the categories listed above:

- Audit fees for the Group statutory audit are in respect of fees payable to KPMG LLP for the statutory audit of the consolidated financial statements of the Group and the separate financial statements of Standard Chartered PLC
- Audit-related fees consist of fees such as those for services required by law or regulation to be provided by the auditor, reviews of interim financial information, reporting on regulatory returns, reporting to a regulator on client assets and extended work performed over financial information and controls authorised by those charged with governance
- Other assurance services include agreed-upon procedures in relation to statutory and regulatory filings
- Tax services include services which are not prohibited by the European Directive on Statutory Audits of Annual and Consolidated Accounts and the Regulation on Statutory Audits of Public Interest Entities
- Corporate finance services are fees payable to KPMG for issuing comfort letters
- Included within the group statutory audit fees is $0.4 million of fees related to the 2018 year end audit and $0.2 million related to the transition of the audit to EY

Expenses incurred during the provision of services and which have been reimbursed by the Group are not included within auditor's remuneration. Expenses incurred for 2019 were $1.1 million (2018: $0.6 million).

38. Remuneration of Directors

This table sets out salary (including salary shares), pension and benefits received in 2019 and variable remuneration awards received in respect of 2019.

	2019 £000	restated 2018 £000
Salaries and fees[1, 2]	**8,554**	5,777
Pension	**1,060**	1,228
Benefits[3]	**506**	382
Annual incentive	**4,416**	4,649
Vesting of LTIP awards[4]	**3,279**	3,918
Total	**17,815**	15,954

1 In 2019, this figure includes fees for the Group Chairman and Group independent non-executive directors who became Court Directors on 1 April 2019, or, if later, at the same time as they became Group independent non-executive directors
2 In 2019, this figure includes salary shares, and in 2018, this figure includes fixed pay allowance shares
3 In 2019, this figure includes benefits for the Group Chairman and Group independent non-executive directors who became Court Directors on 1 April 2019, or, if later, at the same time as they became Group independent non-executive directors
4 The 2018 single figure has been restated based on the actual vesting and share price when the 2016-18 LTIP awards vested in 2019.

Additional information on the remuneration elements in the above single total figure table

Salaries and fees

The salaries, in total, of the four directors as at 1 January 2019, were £5,794,000. For two of the directors, salary is paid part in cash and part in shares which are subject to a retention period and released pro rata over five years. The number of salary shares allocated is determined based on the monetary value and the prevailing market price of the Group's shares on the date of allocation.

The annualised fees of the new directors as at 1 April 2019 (or the date of appointment, if later) were: N Kheraj £360,000, L Cheung £135,000, D Conner £255,000, B E Grote £170,000, C Hodgson £325,000, G Huey Evans, £200,000, N Okonjo-Iweala £135,000, D Tang £135,000, C Tong £205,000, J Whitbread £210,000, J Viñals £1,250,000. D Conner also received fees of £20,000 as a member of the Combined US Operations Risk Committee of Standard Chartered Bank.

There is no apportionment of remuneration between Standard Chartered Bank and Standard Chartered PLC.

Share awards

Four directors exercised share awards over Standard Chartered PLC during the year.

Pension and benefits

An explanation of pension and benefits for those directors who are also executive directors of the SC PLC Group can be found in the SC PLC Group's 2019 Directors' remuneration report on pages 114 to 128. The two directors who are also employees of the SC PLC Group received a flexible benefits allowance in alignment with the UK workforce to include a mixture of core pension and benefits provision, including private medical cover, life assurance and permanent health insurance. Some directors occasionally use a Group car service for travelling and, in some circumstances, were accompanied by their spouses to attend events.

Incentives

For those directors who are also employees of the SC PLC Group, annual incentives in respect of 2019 are delivered upfront with at least 50 per cent paid in shares subject to a minimum twelve-month retention period.

Vesting of LTIP awards

The long-term incentive plan (LTIP) awards granted in March 2016 vested in March 2019, based on performance over the years 2016 to 2018. 27 percent of these awards vested.

Notes to the financial statements continued

The LTIP awards granted in March 2017 are due to vest in March 2020, based on performance over the years 2017 to 2019. Following an estimated assessment of the performance measures (RoE with CET1 underpin, relative TSR and strategic measures), 38 per cent of these awards will vest. The final assessment of relative TSR performance will be conducted in March 2020, the end of the three-year performance period. Based on a share price of £6.92, the three-month average to 31 December 2019, the estimated value to be delivered to the directors is £3,279,000.

Other disclosures

The remuneration policy and practices applying to the Material Risk Taker employees of the Bank are the same as those applied by the SC PLC Group which are set out in the SC PLC Group's 2019 Directors' remuneration report on pages 114 to 128.

Further information on the remuneration for those directors who are also executive directors of the SC PLC Group can be found in the SC PLC Group's 2019 Directors' remuneration report on pages 114 to 128.

39. Related undertakings of the Group

As at 31 December 2019, the Group's interests in related undertakings are disclosed below. Unless otherwise stated, the share capital disclosed comprises ordinary or common shares which are held by subsidiaries of the Group. Unless otherwise indicated, all related undertakings are held indirectly. Note 31 details undertakings that have a significant contribution to the Group's net profit or net assets.

Subsidiary Undertakings

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of 1 Basinghall Avenue, London, EC2V 5DD, United Kingdom			
BWA Dependents Limited	United Kingdom	£1.00 Ordinary shares	100
SC (Secretaries) Limited[4]	United Kingdom	£1.00 Ordinary shares	100
SC Transport Leasing 1 Limited	United Kingdom	£1.00 Ordinary shares	100
SC Transport Leasing 2 Limited	United Kingdom	£1.00 Ordinary shares	100
SC Ventures Innovation Investment L.P.	United Kingdom	Limited Partnership interest	100
SCMB Overseas Limited[4]	United Kingdom	£0.10 Ordinary shares	100
Standard Chartered Africa Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Bank	United Kingdom	$0.01 Non-Cumulative Irredeemable Preference shares	100
		$5.00 Non-Cumulative Redeemable Preference shares	100
		$1.00 Ordinary shares	100
Standard Chartered Foundation[1&4]	United Kingdom	Guarantor	100
Standard Chartered Health Trustee (UK) Limited[4]	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Leasing (UK) 3 Limited[4]	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Leasing (UK) Limited[4]	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Masterbrand Licensing Limited[4]	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Nominees (Private Clients UK) Limited[4]	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Overseas Holdings Limited[4]	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Securities (Africa) Holdings Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Trustees (UK) Limited[4]	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered UK Holdings Limited[4]	United Kingdom	£10.00 Ordinary shares	100
The SC Transport Leasing Partnership 1	United Kingdom	Limited Partnership interest	100
The SC Transport Leasing Partnership 2	United Kingdom	Limited Partnership interest	100
The SC Transport Leasing Partnership 3	United Kingdom	Limited Partnership interest	100
The SC Transport Leasing Partnership 4	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 1 LP[1]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 2 LP[1]	United Kingdom	Limited Partnership interest	100

Notes to the financial statements continued

The BW Leasing Partnership 3 LP[1]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 4 LP[1]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 5 LP[1]	United Kingdom	Limited Partnership interest	100
The following companies have the address of 2 More London Riverside, London SE1 2JT, United Kingdom			
Bricks (C&K) LP[1]	United Kingdom	Limited Partnership interest	100
Bricks (C) LP[1]	United Kingdom	Limited Partnership interest	100
Bricks (M) LP	United Kingdom	Limited Partnership interest	100
Bricks (P) LP[1]	United Kingdom	Limited Partnership interest	100
Bricks (T) LP[1]	United Kingdom	Limited Partnership interest	100
The following company has the address of 8th Floor, 20 Farringdon Street, London, EC4A 4AB, United Kingdom.			
SC Ventures G.P. Limited[4]	United Kingdom	£1.00 Ordinary shares	100
The following company has the address of Rua Gamal Abdel Nasser, Edificio Tres Torres, Eixo Viario, Distrito Urbano da Ingombota, Municipio de Luanda, Provincia de Luanda, Angola			
Standard Chartered Bank Angola SA	Angola	AOK8,742.05 Ordinary shares	60
The following company has the address of Level 5, 345 George St, Sydney NSW 2000, Australia			
Standard Chartered Grindlays Pty Limited[4]	Australia	AUD Ordinary shares	100
The following companies have the address of 5th Floor Standard House Bldg, The Mall, Queens Road, PO Box 496, Gaborone, Botswana			
Standard Chartered Bank Insurance Agency (Proprietary) Limited	Botswana	BWP Ordinary shares	100
Standard Chartered Investment Services (Proprietary) Limited	Botswana	BWP Ordinary shares	100
Standard Chartered Bank Botswana Limited[5]	Botswana	BWP Ordinary shares	75.8
Standard Chartered Botswana Education Trust[2&4]	Botswana	Interest in trust	100
Standard Chartered Botswana Nominees (Proprietary) Limited	Botswana	BWP Ordinary shares	100
The following company has the address of Avenida Brigadeiro Faria Lima, 3600 - 7th floor, Sao Paulo, Sao Paulo, 04538-132, Brazil			
Standard Chartered Bank (Brasil) S.A. - Banco de Investimento[4]	Brazil	BRL Ordinary shares	100
The following company has the address of Av. Brigadeiro Faria Lima, 3600 – 7° andar, conj 72 04538-132, São Paulo, Brazil			
Standard Chartered Representação Ltda[4]	Brazil	BRL1.00 Ordinary shares	100
The following company has the address of 51-55 Jalan Sultan, Complex Jalan sultan, Bandar Seri Begawan, BS8811, Brunei Darussalam			
Standard Chartered Finance (Brunei) Bhd	Brunei Darussalam	BND1.00 Ordinary shares	100
The following company has the address of G01-02, Wisma Haji Mohd Taha Building, Jalan Gadong, BE4119, Brunei Darussalam			
Standard Chartered Securities (B) Sdn Bhd[4]	Brunei Darussalam	BND1.00 Ordinary shares	100
The following company has the address of 1155, Boulevard de la Liberté, Douala, B.P. 1784, Cameroon			
Standard Chartered Bank Cameroon SA	Cameroon	XAF10,000.00 Ordinary shares	100
The following company has the address of-20 Adelaide Street, Suite 1105 , Toronto ON M5C 2T6 Canada			
Standard Chartered (Canada) Limited[4]	Canada	CAD1.00 Ordinary shares	100
The following company has the address of Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman KY1-1104, Cayman Islands			
Cerulean Investments LP	Cayman Islands	Limited Partnership interest	100
The following company has the address of Maples Finance Limited, PO Box 1093 GT, Queensgate House, Georgetown, Grand Cayman, Cayman Islands			
SCB Investment Holding Company Limited[4]	Cayman Islands	$1,000.00 A Ordinary shares	100

		$1.00 Class X shares	100
The following companies have the address of Walkers Corporate Limited, Cayman Corporate Centre, 27 Hospital Road George Town, Grand Cayman KY1-9008, Cayman Islands			
Sirat Holdings Limited	Cayman Islands	$0.01 Ordinary shares	100
		$0.01 Preference shares	100
Standard Chartered Principal Finance (Cayman) Limited[4]	Cayman Islands	$0.0001 Ordinary shares	100
The following company has the address of Mourant Ozannes Corporate Services (Cayman) Limited, Harbour Centre, 42 North Church Street, PO Box 1348, Grand Cayman KY1-1108, Cayman Islands			
Sunflower Cayman SPC[4]	Cayman Islands	$1.00 Management shares	100
The following company has the address of Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman KY1-1104, Cayman Islands			
Standard Chartered Saadiq Mudarib Company Limited[4]	Cayman Islands	$1.00 Ordinary shares	100
The following company has the address of No. 35, Xinhuanbei Road, TEDA, Tianjin, 300457, China			
Standard Chartered Global Business Services Co. Limited[3&4]	China	$ Ordinary shares	100
The following company has the address of Standard Chartered Bank Cote d'Ivoire, 23 Boulevard de la République, Abidjan 17, 17 B.P. 1141, Cote d'Ivoire			
Standard Chartered Bank Cote d' Ivoire SA	Cote d'Ivoire	XOF100,000.00 Ordinary shares	100
The following company has the address of 8 Ecowas Avenue, PMB 259 Banjul, The Gambia			
Standard Chartered Bank Gambia Limited	Gambia	GMD1.00 Ordinary shares	74.8
The following company has the address of Taunusanlage 16, 60325, Frankfurt am Main, Germany			
Standard Chartered Bank AG[4]	Germany	€ Ordinary shares	100
The following companies have the address of Standard Chartered Bank Building, 87 Independence Avenue, P.O. Box 768, Accra, Ghana			
Standard Chartered Bank Ghana Limited	Ghana	GHS Ordinary shares	69.4
		GHS0.52 Preference shares	87.0
Standard Chartered Ghana Nominees Limited	Ghana	GHS Ordinary shares	100
The following companies have the address of Bordeaux Court, Les Echelons, South Esplanade, St.Peter Port, Guernsey			
Birdsong Limited	Guernsey	£1.00 Ordinary shares	100
Nominees One Limited	Guernsey	£1.00 Ordinary shares	100
Nominees Two Limited	Guernsey	£1.00 Ordinary shares	100
Songbird Limited	Guernsey	£1.00 Ordinary shares	100
Standard Chartered Secretaries (Guernsey) Limited	Guernsey	£1.00 Ordinary shares	100
Standard Chartered Trust (Guernsey) Limited[4]	Guernsey	£1.00 Ordinary shares	100
The following companies have the address of 14th Floor, One Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong			
Kozagi Limited	Hong Kong	HKD Ordinary shares	100
Majestic Legend Limited	Hong Kong	HKD Ordinary shares	100
Ori Private Limited	Hong Kong	$ Ordinary shares	100
		$ A Ordinary shares	90.7
		$ B Ordinary shares	100
Standard Chartered PF Real Estate (Hong Kong) Limited	Hong Kong	$ Ordinary shares	100
The following company has the address of 3/F Standard Chartered Bank Building, 4-4A Des Voeux Road Central, Hong Kong			
Standard Chartered Private Equity Limited	Hong Kong	HKD Ordinary shares	100
		$ Ordinary shares	100
The following company has the address of 21/F, Standard Chartered Tower, 388 Kwun Tong Road, Kwun Tong, Kowloon, Hong Kong			

Name	Country	Description of shares	%
Standard Chartered Asia Limited	Hong Kong	HKD Deferred shares	100
		HKD Ordinary shares	100
		$ Ordinary shares	100
The following companies have the address of 32/F, Standard Chartered Bank Building, 4-4A Des Voeux Road, Central, Hong Kong			
Standard Chartered Sherwood (HK) Limited[4]	Hong Kong	HKD Ordinary shares	100
The following company has the address of 1st Floor, Europe Building, No.1, Haddows Road, Nungambakkam, Chennai, 600 006, India			
Standard Chartered Global Business Services Private Limited[6]	India	INR10.00 Ordinary shares	100
The following company has the address of 90 M.G.Road, II Floor, Fort, Mumbai, Maharashtra, 400 001, India			
Standard Chartered Finance Private Limited[4]	India	INR10.00 Ordinary shares	98.7
The following companies have the address of Crescenzo, 6th Floor, Plot No 38-39, G Block, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra, 400051, India			
Standard Chartered (India) Modeling and Analytics Centre Private Limited[4]	India	INR10.00 Ordinary shares	100
Standard Chartered Investments and Loans (India) Limited[4]	India	INR10.00 Ordinary shares	100
St Helen's Nominees India Private Limited[4]	India	INR10.00 Ordinary shares	100
The following company has the address of Crescenzo, 7th Floor, Plot No 38-39, G Block, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra, 400051, India			
Standard Chartered Private Equity Advisory (India) Private Limited	India	INR1,000.00 Ordinary shares	100
The following company has the address of Second Floor, Indiqube Edge, Khata No. 571/630/6/4, Sy.No.6/4, Ambalipura Village, Varthur Hobli, Marathahalli Sub-Division, Ward No. 150, Bengaluru, 560102, India.			
Standard Chartered Research and Technology India Private Limited	India	INR10.00 Ordinary shares	100
The following company has the address of 2nd Floor, 23-25 M.G. Road, Fort, Mumbai, 400 001, India			
Standard Chartered Securities (India) Limited	India	INR10.00 Ordinary shares	100
The following company has the address of No. 157 – 157 A, Jakarta Barat, 11130, Indonesia.			
PT. Price Solutions Indonesia (dalam likuidasi)	Indonesia	$100.00 Ordinary shares	100
The following companies have the address of 1st Floor, Goldie House, 1-4 Goldie Terrace, Upper Church Street, Douglas, IM1 1EB, Isle of Man			
Standard Chartered Assurance Limited[4]	Isle of Man	$1.00 Ordinary shares	100
		$1.00 Redeemable Preference shares	100
Standard Chartered Insurance Limited[4]	Isle of Man	$1.00 Ordinary shares	100
The following company has the address of 21/F, Sanno Park Tower, 2-11-1 Nagatacho, Chiyoda-ku, Tokyo, 100-6155, Japan			
Standard Chartered Securities (Japan) Limited[4]	Japan	JPY50,000 Ordinary shares	100
The following company has the address of 15 Castle Street, St Helier, JE4 8PT, Jersey			
SCB Nominees (CI) Limited[4]	Jersey	$1.00 Ordinary shares	100
The following companies have the address of Standard Chartered@ Chiromo, Number 48, Westlands Road, P. O. Box 30003 - 00100, Nairobi, Kenya			
Standard Chartered Investment Services Limited	Kenya	KES20.00 Ordinary shares	100
Standard Chartered Bank Kenya Limited	Kenya	KES5.00 Ordinary shares	74.3
		KES5.00 Preference shares	100
Standard Chartered Securities (Kenya) Limited	Kenya	KES10.00 Ordinary shares	100
Standard Chartered Financial Services Limited	Kenya	KES20.00 Ordinary shares	100
Standard Chartered Insurance Agency Limited	Kenya	KES100.00 Ordinary shares	100

Standard Chartered Kenya Nominees Limited	Kenya	KES20.00 Ordinary shares	100
The following company has the address of M6-2701, West 27Fl, Suha-dong, 26, Eulji-ro 5-gil, Jung-gu, Seoul, Korea, Republic of			
Resolution Alliance Korea Ltd[4]	Korea, Republic of	KRW5,000.00 Ordinary shares	100
The following company has the address of Atrium Building, Maarad Street, 3rd Floor, P.O.Box: 11-4081 Riad El Solh, Beirut, Beirut Central District, Lebanon			
Standard Chartered Metropolitan Holdings SAL	Lebanon	$10.00 Ordinary A shares	100
The following companies have the address of Level 16, Menara Standard Chartered, 30, Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia			
Cartaban (Malaya) Nominees Sdn Berhad	Malaysia	RM Ordinary shares	100
Cartaban Nominees (Asing) Sdn Bhd	Malaysia	RM Ordinary shares	100
Cartaban Nominees (Tempatan) Sdn Bhd	Malaysia	RM Ordinary shares	100
Golden Maestro Sdn Bhd	Malaysia	RM Ordinary shares	100
Popular Ambience Sdn Bhd	Malaysia	RM Ordinary shares	100
Price Solutions Sdn Bhd	Malaysia	RM Ordinary shares	100
SCBMB Trustee Berhad	Malaysia	RM Ordinary shares	100
Standard Chartered Bank Malaysia Berhad	Malaysia	RM Irredeemable Cumulative Preference shares	100
		RM Ordinary shares	100
Standard Chartered Saadiq Berhad	Malaysia	RM Ordinary shares	100
The following company has the address of N8, Jalan Kerinchi, 59200 Kuala Lumpur, Wilayah Persekutuan, Malaysia			
Resolution Alliance Sdn Bhd[1]	Malaysia	RM Ordinary shares	91
The following company has the address of Level 7, Wisma Standard Chartered, Jalan Teknologi 8, Taman Teknologi Malaysia, 57000 Bukit Jalil, Kuala Lumpur, Wilayah Persekutuan, Malaysia			
Standard Chartered Global Business Services Sdn Bhd[4]	Malaysia	RM Ordinary shares	100
The following companies have the address of SGG Corporate Services (Mauritius) Ltd, 33, Edith Cavell St, Port Louis, 11324, Mauritius			
Actis Asia Real Estate (Mauritius) Limited	Mauritius	$1.00 Class A shares	100
		$1.00 Class B shares	100
Actis Treit Holdings (Mauritius) Limited[1]	Mauritius	$1.00 Class A shares	62
		$1.00 Class B shares	62
The following company has the address of 6/F, Standard Chartered Tower, 19, Bank Street, Cybercity, Ebene, 72201, Mauritius			
Standard Chartered Bank (Mauritius) Limited[4]	Mauritius	$ Ordinary shares	100
The following companies have the address of c/o Abax Corporate Services Ltd, 6/F, Tower A, 1 CYBERCITY, Ebene, Mauritius			
Standard Chartered Financial Holdings[6]	Mauritius	$1.00 Ordinary shares	100
Standard Chartered Private Equity (Mauritius) II Limited	Mauritius	$1.00 Ordinary shares	100
Standard Chartered Private Equity (Mauritius) Limited[4]	Mauritius	$1.00 Ordinary shares	100
		$ Redeemable Preference shares	100
Standard Chartered Private Equity (Mauritius) III Limited	Mauritius	$1.00 Ordinary shares	100
The following company has the address of 5/F, Ebene Esplanade, 24 Bank Street, Cybercity, Ebene, Mauritius			
Subcontinental Equities Limited	Mauritius	$1.00 Ordinary shares	100
The following company has the address of Standard Chartered Bank Nepal Limited, Madan Bhandari Marg, Ward No.34, Kathmandu Metropolitan City, Kathmandu District, Bagmati Zone, Kathmandu, Nepal			
Standard Chartered Bank Nepal Limited[7]	Nepal	NPR100.00 Ordinary shares	70.2
The following companies have the address of 1 Basinghall Avenue, London, EC2V 5DD, United Kingdom			
Standard Chartered Holdings (Africa) B.V.	Netherlands	€4.50 Ordinary shares	100
Standard Chartered Holdings (Asia Pacific) B.V.	Netherlands	€4.50 Ordinary shares	100

Standard Chartered Holdings (International) B.V.	Netherlands	€4.50 Ordinary shares	100
Standard Chartered MB Holdings B.V.	Netherlands	€4.50 Ordinary shares	100
The following companies have the address of 142 Ahmadu Bello Way, Victoria Island, Lagos, Nigeria			
Cherroots Nigeria Limited	Nigeria	NGN1.00 Ordinary Shares	100
Standard Chartered Bank Nigeria Limited	Nigeria	NGN1.00 Irredeemable Non Cumulative Preference shares	100
		NGN1.00 Ordinary shares	100
		NGN1.00 Redeemable Preference shares	100
Standard Chartered Capital & Advisory Nigeria Limited	Nigeria	NGN1.00 Ordinary shares	100
Standard Chartered Nominees (Nigeria) Limited	Nigeria	NGN1.00 Ordinary shares	100
The following company has the address of P.O. Box No. 5556, I.I. Chundrigar Road, Karachi, 74000, Pakistan			
Standard Chartered Bank (Pakistan) Limited[4]	Pakistan	PKR10.00 Ordinary shares	98.9
The following company has the address of ul. Towarowa 25A, 00-869 Warszawa, Poland			
Standard Chartered Global Business Services spólka z ograniczona odpowiedzialnoscia[4]	Poland	PLN50.00 Ordinary shares	100
The following company has the address of Al Faisaliah Office Tower, 7/F, King Fahad Highway, Olaya District, Riyadh P.O box 295522, Riyadh, 11351, Saudi Arabia			
Standard Chartered Capital (Saudi Arabia)[4]	Saudi Arabia	SAR10.00 Ordinary shares	100
The following company has the address of 9 & 11, Lightfoot Boston Street, Freetown, Sierra Leone			
Standard Chartered Bank Sierra Leone Limited	Sierra Leone	SLL1.00 Ordinary shares	80.7
The following companies have the address of 9 Raffles Place, #27-00 Republic Plaza, 048619, Singapore.			
Actis RE Investment 1 Private Limited[1]	Singapore	SGD Ordinary shares	100
Actis RE Investment 2 Private Limited[1]	Singapore	SGD Ordinary shares	100
Actis RE Investment 3 Private Limited[1]	Singapore	SGD Ordinary shares	100
Actis RE Investment 4 Private Limited[1]	Singapore	SGD Ordinary shares	100
Actis Treit Holdings No.1 (Singapore) Private Limited[1]	Singapore	SGD Ordinary shares	100
Actis Treit Holdings No.2 (Singapore) Private Limited[1]	Singapore	SGD Ordinary shares	100
The following company has the address of 7 Changi Business Park Crescent, #03-00 Standard Chartered @ Changi, 486028, Singapore			
Raffles Nominees (Pte.) Limited	Singapore	SGD Ordinary shares	100
The following companies have the address of 8 Marina Boulevard, Level 27, Marina Bay Financial Centre, Tower 1, 018981, Singapore			
SCTS Capital Pte. Ltd	Singapore	SGD Ordinary shares	100
SCTS Management Pte. Ltd.	Singapore	SGD Ordinary shares	100
Standard Chartered Bank (Singapore) Limited	Singapore	SGD Ordinary shares	100
		SGD Preference shares	100
		$ Ordinary shares	100
		$ Preference shares	100
Standard Chartered Trust (Singapore) Limited[4]	Singapore	SGD Ordinary shares	100
Standard Chartered Holdings (Singapore) Private Limited[4]	Singapore	SGD Ordinary shares	100
		$ Ordinary shares	100
The following companies have the address of Abogado Pte Ltd, No. 8 Marina Boulevard, #05-02 MBFC Tower 1, 018981, Singapore			
Standard Chartered IL&FS Management (Singapore) Pte. Limited[4]	Singapore	$ Ordinary shares	50
Standard Chartered PF Managers Pte. Limited[4]	Singapore	$ Ordinary shares	100
Standard Chartered Real Estate Investment Holdings (Singapore) Private Limited	Singapore	$ Ordinary shares	100

The following company has the address of 9 Battery Road, #15-01 Straits Trading Building, 049910, Singapore			
Standard Chartered Nominees (Singapore) Pte Ltd[4]	Singapore	SGD Ordinary shares	100
The following company has the address of 5/F, 4 Sandown Valley Crescent, Sandton, Gauteng, 2196, South Africa			
CMB Nominees (RF) PTY Limited[4]	South Africa	ZAR1.00 Ordinary shares	100
The following company has the address of 2nd Floor, 115 West Street, Sandton, Johannesburg, 2196, South Africa			
Standard Chartered Nominees South Africa Proprietary Limited (RF)[4]	South Africa	ZAR Ordinary shares	100
The following companies have the address of 1 Floor, International House, Shaaban Robert Street / Garden Avenue, PO Box 9011, Dar Es Salaam, Tanzania, United Republic of			
Standard Chartered Bank Tanzania Limited	Tanzania, United Republic of	TZS1,000.00 Ordinary shares	100
		TZS1,000.00 Preference shares	100
Standard Chartered Tanzania Nominees Limited	Tanzania, United Republic of	TZS1,000.00 Ordinary shares	100
The following company has the address of 100 North Sathorn Road, Silom, Bangrak Bangkok , 10500, Thailand			
Standard Chartered Bank (Thai) Public Company Limited[4]	Thailand	THB10.00 Ordinary shares	99.9
The following company has the address of Buyukdere Cad. Yapi Kredi Plaza C Blok, Kat 15, Levent, Istanbul, 34330, Turkey			
Standard Chartered Yatirim Bankasi Turk Anonim Sirketi[6]	Turkey	TRL0.10 Ordinary shares	100
The following company has the address of Standard Chartered Bank Bldg, 5 Speke Road, PO Box 7111, Kampala, Uganda			
Standard Chartered Bank Uganda Limited	Uganda	UGS1,000.00 Ordinary shares	100
The following company has the address of 505 Howard St. #201, San Francisco, CA 94105, United States			
SC Studios, LLC[4]	United States	Membership Interest	100
The following company has the address of Standard Chartered Bank, 37F, 1095 Avenue of the Americas, New York 10036, United States			
Standard Chartered Bank International (Americas) Limited[4]	United States	$1,000.00 Ordinary shares	100
The following companies have the address of Corporation Trust Centre, 1209 Orange Street, Wilmington DE 19801, United States			
Standard Chartered Holdings Inc.[4]	United States	$100.00 Common shares	100
Standard Chartered Capital Management (Jersey), LLC[4]	United States	$ Ordinary shares	100
Standard Chartered Securities (North America) LLC	United States	Membership Interest	100
StanChart Securities International LLC	United States	Membership Interest	100
Standard Chartered International (USA) LLC	United States	Membership Interest	100
The following company has the address of 50 Fremont Street, San Francisco CA 94105, United States			
Standard Chartered Overseas Investment, Inc.	United States	$10.00 Ordinary shares	100
The following company has the address of C/O Corporation Service Company, 251 Little Falls Drive, Wilmington DE 19808, United States			
Standard Chartered Trade Services Corporation	United States	$0.01 Common shares	100
The following company has the address of Room 1810-1815, Level 18, Building 72, Keangnam Hanoi Landmark Tower, Pham Hung Road, Cau Giay New Urban Area, Me Tri Ward, Nam Tu Liem District, Hanoi10000, Vietnam			
Standard Chartered Bank (Vietnam) Limited[4]	Vietnam	VND Charter Capital shares	100
The following companies have the address of Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, Virgin Islands, British			
Sky Favour Investments Limited	Virgin Islands, British	$1.00 Ordinary shares	100
Sky Harmony Holdings Limited	Virgin Islands, British	$1.00 Ordinary shares	100
The following companies have the address of Standard Chartered House, Cairo Road, Lusaka, PO BOX 32238, Zambia			

Name	Country of Incorporation	Description of shares	Proportion of shares held (%)
Standard Chartered Bank Zambia Plc	Zambia	ZMW0.25 Ordinary shares	90
Standard Chartered Zambia Securities Services Nominees Limited	Zambia	ZMW1.00 Ordinary shares	100
The following companies have the address of Africa Unity Square Building, 68 Nelson Mandela Avenue, Harare, Zimbabwe			
Africa Enterprise Network Trust[2]	Zimbabwe	Interest in Trust	100
Standard Chartered Bank Zimbabwe Limited[8]	Zimbabwe	$1.00 Ordinary shares	100
Standard Chartered Nominees Zimbabwe (Private) Limited	Zimbabwe	$2.00 Ordinary shares	100

Joint ventures

Name	Country of Incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of WTC II Building, Jalan Jenderal Sudirman Kav29-31, Jakarta, 12920' Indonesia			
PT Bank Permata Tbk[4]	Indonesia	IDR125.00 B shares	44.6

Associates

Name	Country of Incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of 3 More London Riverside,London, England, SE1 2AQ,United Kingdom			
Trade Information Network Limited[4]	United Kingdom	$1.00 Ordinary shares	16.7
The following company has the address of C/o CIM Corporate Services Ltd, Les Cascades, Edith Cavell Street, Port Louis, Mauritius			
FAI Limited	Mauritius	$1.00 Ordinary shares	25
The following company has the address of Victoria House, State House Avenue, Victoria, MAHE, Seychelles			
Seychelles International Mercantile Banking Corporation Limited	Seychelles	SCR1,000.00 Ordinary shares	22
The following company has the address of 1 Raffles Quay, #23-01, One Raffles Quay, 048583, Singapore			
Clifford Capital Pte. Ltd	Singapore	$1.00 Ordinary shares	9.9

Significant investment holdings and other related undertakings

Name	Country of Incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of 65A Basinghall Street, London, EC2V 5DZ, United Kingdom			
Cyber Defence Alliance Limited[4]	United Kingdom	Membership interest	25
The following company has the address of Intertrust Corporate Services (Cayman) Limited, 190 Elgin Avenue, George Town, Grand Cayman, KY1-9005, Cayman Islands			
ATSC Cayman Holdco Limited	Cayman Islands	$0.01 A Ordinary shares	5.3
		$0.01 B Ordinary shares	100
The following companies have the address of Harbour Centre #42 North Church Street, PO Box 1348, Grand Cayman, KY1-1108 Cayman Islands, Cayman Islands			
Standard Chartered IL&FS Asia Infrastructure (Cayman) Limited	Cayman Islands	$0.01 Ordinary shares	50
Standard Chartered IL&FS Asia Infrastructure Growth Fund Company Limited	Cayman Islands	$1.00 Ordinary shares	50
The following company has the address of 3, Floor 1, No.1, Shiner Wuxingcaiyuan, West Er Huan Rd, Xi Shan District, Kunming, Yunnan Province, PRC, China			
Yunnan Golden Shiner Property Development Co., Ltd.	China	CNY1.00 Ordinary shares	42.5
The following companies have the address of Unit 605-08, 6/F Wing On Centre, 111 Connaught Rd, Central Sheung Wan, Hong Kong			
Actis Carrock Holdings (HK) Limited	Hong Kong	$ Class A shares	39.7
		$ Class B shares	39.7

Actis Jack Holdings (HK) Limited	Hong Kong	$ Class A shares	39.7
		$ Class B shares	39.7
Actis Rivendell Holdings (HK) Limited	Hong Kong	$ Class A shares	39.7
		$ Class B shares	39.7
Actis Temple Stay Holdings (HK) Limited	Hong Kong	$ Class A shares	39.7
		$ Class B shares	39.7
Actis Young City Holdings (HK) Limited	Hong Kong	$ Class A shares	39.7
		$ Class B shares	39.7
The following company has the address of 1221 A, Devika Tower, 12th Floor, 6 Nehru Place, New Delhi 110019, New Delhi, 110019, India			
Mikado Realtors Private Limited	India	INR10.00 Ordinary shares	26
The following company has the address of Elphinstone Building, 2nd Floor,10 Veer Nariman Road, Fort, Mumbai -400001, Maharashtra, India			
TRIL IT4 Private Limited	India	INR10.00 Ordinary shares	26
The following company has the address of 4/F, 274, Chitalia House, Dr. Cawasji Hormusji Road, Dhobi Talao, Mumbai City, Maharashtra, India 400 002, Mumbai, 400 002, India			
Industrial Minerals and Chemical Co. Pvt. Ltd	India	INR100.00 Ordinary shares	26
The following company has the address of TRIO Building, 8/F, Jl, Kebon Sirih Raya Kav, 63, Jakarta, 10340, Indonesia			
PT Trikomsel Oke Tbk	Indonesia	IDR50.00 Series B shares	29.2
The following companies have the address of 4/F St Pauls Gate, 22-24 New Street, St Helier, JE1 4TR, Jersey			
Standard Jazeera Limited	Jersey	$1.00 Class C Redeemable Preference Shares	100
		$1.00 Ordinary Shares	20
Standard Topaz Limited	Jersey	$1,000.00 Ordinary shares	20.1
		$1.00 Class C Redeemable Preference Shares	100
The following company has the address of 1 Venture Avenue, #07-07 Big Box, 608521, Singapore			
Omni Centre Pte. Ltd.	Singapore	SGD Redeemable Convertible Preference shares	100
The following company has the address of 152 Beach Road, #28-00 Gateway East, Singapore, 189721			
Socash Pte. Ltd.	Singapore	$ Class B Preference shares	33.3
The following company has the address of 251 Little Falls Drive, Wilmington, New Castle DE 19808, United States			
Paxata, Inc.	United States	$0.0001 Series C2 Preferred Stock	40.7

In liquidation

Subsidiary Undertakings

Name	Country of Incorporation	Description of shares	Proportion of shares held (%)

The following companies have the address of Deloitte LLP, Hill House, 1 Little New Street, London, EC4A 3TR, United Kingdom			
SC Leaseco Limited[4]	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Capital Markets Limited[4]	United Kingdom	£1.00 Ordinary shares	100
		$1.00 Ordinary shares	100
Standard Chartered Debt Trading Limited[4]	United Kingdom	£1.00 Ordinary shares	100
Compass Estates Limited[4]	United Kingdom	£1.00 Ordinary shares	100
Chartered Financial Holdings Limited	United Kingdom	£5.00 Ordinary shares	100
		£1.00 Preference shares	100
The following company has the address of Cra 7 Nro 71-52 TA if 702, Bogata, Colombia			
Sociedad Fiduciaria Extebandes S.A.	Colombia	COP1.00 Ordinary shares	100
The following companies have the address of Schottegatweg Oost, 44, Curacao, Netherlands Antilles			
American Express International Finance Corp.N.V.	Curaçao	$1,000.00 Ordinary shares	100
Ricanex Participations N.V.	Curaçao	$1,000.00 Ordinary shares	100
The following company has the address of 8/Floor, Gloucester Tower , The Landmark, 15 Queen's Road Central, Hong Kong			
Leopard Hong Kong Limited[4]	Hong Kong	$ Ordinary shares	100
The following company has the address of Menara Standard Chartered, 3rd floor, Jl. Prof. DR. Satrio No. 164, Jakarta, 12930, Indonesia			
PT Solusi Cakra Indonesia[4]	Indonesia	IDR23,809,600.00 Ordinary shares	100
The following company has the address of Standard Chartered@Chiromo, Number 48, Westlands Road, P. O. Box 30003 - 00100, Nairobi, Kenya			
Standard Chartered Management Services Limited	Kenya	KES20.00 Ordinary shares	100
The following company has the address of 30 Rue Schrobilgen, 2526, Luxembourg			
Standard Chartered Financial Services (Luxembourg) S.A.[4]	Luxembourg	€25.00 Ordinary shares	100
The following company has the address of Level 16, Menara Standard Chartered, 30, Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia			
Amphissa Corporation Sdn Bhd	Malaysia	RM1.00 Ordinary shares	100
The following companies have the address of 1 Basinghall Avenue, London, EC2V 5DD, United Kingdom			
Smart Application Investment B.V.	Netherlands	€45.00 Ordinary shares	100
The following company has the address of Jiron Huascar 2055, Jesus Maria, Lima 15072, Peru			
Banco Standard Chartered en Liquidacion[9]	Peru	$75.133 Ordinary shares	100
The following company has the address of 8 Marina Boulevard, Level 27, Marina Bay Financial Centre, Tower 1, 018981, Singapore			
Standard Chartered (2000) Limited	Singapore	SGD Ordinary shares	100
		$ Class A Preference shares	100
		£ Class B Preference shares	100
The following company has the address of Quai du General Guisan 38, 8022, Zurich, Switzerland, Switzerland			
Standard Chartered Bank (Switzerland) S.A.[4]	Switzerland	CHF1,000.00 Ordinary shares	100
		CHF100.00 Participation Capital shares	100
The following company has the address of 6/F, Hewlett Packard Building, 337 Fu Hsing North Road, Taipei, Taiwan			
Kwang Hua Mocatta Company Ltd.	Taiwan	TWD1,000.00 Ordinary shares	100
The following company has the address of Luis Alberto de Herrera 1248, Torre II, Piso 11, Esc. 1111, Uruguay			
Standard Chartered Uruguay Representacion S.A.[4]	Uruguay	UYU1.00 Ordinary shares	100

Significant investment holdings and other related undertakings

Name	Country of Incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of Lot 6.05, Level 6, KPMG Tower, 8 First Avenue, Bandar Utama, 47800 Petaling Jaya, Selangor, Malaysia			
House Network SDN BHD[4]	Malaysia	RM1.00 Ordinary shares	25

1. The Group has determined that these undertakings are excluded from being consolidated into the Group's accounts, and do not meet the definition of a Subsidiary under IFRS. See Note 31 and Note 32 for the consolidation policy and disclosure of the undertaking.
2. No share capital by virtue of being a trust
3. Limited liability company
4. Related undertaking directly held by Standard Chartered Bank
5. Related undertaking directly and indirectly held by Standard Chartered Bank. Indirect holding is 74.996%
6. Related undertaking directly and indirectly held by Standard Chartered Bank. Indirect holding is 0.000%
7. Related undertaking directly and indirectly held by Standard Chartered Bank. Indirect holding is 46.807%
8. Related undertaking directly and indirectly held by Standard Chartered Bank. Indirect holding is 91.482%
9. Related undertaking directly and indirectly held by Standard Chartered Bank. Indirect holding is 0.001%

Liquidated/dissolved/sold

Subsidiary Undertakings

Name	Country of Incorporation	Description of shares
SC Overseas Investments Limited	United Kingdom	AUD1.00 Ordinary shares $1.00 Ordinary shares
Standard Chartered (GCT) Limited	United Kingdom	£1.00 Ordinary shares
Marina Aquamarine Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Poseidon Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Zeus Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Actis Place Holdings (Mauritius) Limited	Mauritius	Class A $1.00 Ordinary shares Class B $1.00 Ordinary shares
Actis Mahi Holdings (Singapore) Private Limited	Singapore	SGD Ordinary shares
Actis Place Holdings No.1 (Singapore) Private Limited	Singapore	SGD Ordinary shares
Actis Place Holdings No.2 (Singapore) Private Limited	Singapore	SGD Ordinary shares
Standard Chartered (Thailand) Company Limited	Thailand	THB10.00 Ordinary shares
Standard Chartered Asset Management Limited	Zimbabwe	$0.001 Ordinary shares

Associates

Name	Country of Incorporation	Description of shares
MCashback Limited	United Kingdom	£0.01 Ordinary shares

Significant investment holdings and other related undertakings

Name	Country of Incorporation	Description of shares
Greathorse Chemical Limited	Cayman Islands	$1.00 Ordinary shares

Notes to the financial statements continued

Asia Trading Holdings Limited	Cayman Islands	$0.01 Ordinary shares
Joyville Shapoorji Housing Private Limited	India	INR10.00 Common Equity shares
Mahindra Homes Private Limited	India	INR10.00 Compulsorily Convertible Preference shares INR10.00 A Ordinary shares INR10.00 B Ordinary shares
Northern Arc Capital Limited	India	INR20.00 Compulsorily Convertible Preference shares INR10.00 Equity shares
Crystal Jade Group Holdings Pte Ltd	Singapore	$ Ordinary shares
MMI Technoventures Pte Ltd	Singapore	SGD Ordinary shares SGD 0.01 Redeemable Preference shares
Polaris Limited	Singapore	SGD Ordinary shares
Ecoplast Technologies Inc	Virgin Islands, British	$0.0001 Class C Preferred shares

Sold to ultimate parent company or fellow subsidiaries of SC PLC Group

Subsidiary Undertakings

Name and registered address	Country of incorporation	Description of shares
Pembroke Aircraft Leasing (UK) Limited	United Kingdom	£1.00 Ordinary shares
Standard Chartered NEA Limited	United Kingdom	$1.00 Ordinary shares
Pembroke Aircraft Leasing (Tianjin) Limited[3]	China	$1.00 Ordinary shares
Pembroke Aircraft Leasing Tianjin 1 Limited[3]	China	CNY1.00 Ordinary shares
Pembroke Aircraft Leasing Tianjin 2 Limited[3]	China	CNY1.00 Ordinary shares
Standard Chartered Bank (China) Limited[3]	China	CNY Ordinary shares
Standard Chartered Corporate Advisory Co. Ltd[3]	China	$1.00 Ordinary shares
Standard Chartered Trading (Shanghai) Limited[3]	China	$15,000,000.00 Ordinary shares
Horsford Nominees Limited	Hong Kong	HKD Ordinary shares
Marina Acacia Shipping Limited	Hong Kong	$ Ordinary shares
Marina Amaryllis Shipping Limited	Hong Kong	$ Ordinary shares
Marina Amethyst Shipping Limited	Hong Kong	$ Ordinary shares
Marina Ametrine Shipping Limited	Hong Kong	$ Ordinary shares
Marina Angelite Shipping Limited	Hong Kong	$ Ordinary shares
Marina Apollo Shipping Limited	Hong Kong	$ Ordinary shares
Marina Beryl Shipping Limited	Hong Kong	$ Ordinary shares
Marina Carnelian Shipping Limited	Hong Kong	$ Ordinary shares
Marina Emerald Shipping Limited	Hong Kong	$ Ordinary shares
Marina Flax Shipping Limited	Hong Kong	$ Ordinary shares
Marina Gloxinia Shipping Limited	Hong Kong	$ Ordinary shares
Marina Hazel Shipping Limited	Hong Kong	$ Ordinary shares
Marina Honor Shipping Limited	Hong Kong	HKD Ordinary shares $ Ordinary shares
Marina Ilex Shipping Limited	Hong Kong	$ Ordinary shares
Marina Iridot Shipping Limited	Hong Kong	$ Ordinary shares
Marina Kunzite Shipping Limited	Hong Kong	$ Ordinary shares

Marina Leasing Limited	Hong Kong	$ Ordinary shares
Marina Mimosa Shipping Limited	Hong Kong	$ Ordinary shares
Marina Moonstone Shipping Limited	Hong Kong	$ Ordinary shares
Marina Peridot Shipping Limited	Hong Kong	$ Ordinary shares
Marina Sapphire Shipping Limited	Hong Kong	$ Ordinary shares
Marina Splendor Shipping Limited	Hong Kong	HKD Ordinary shares $ Ordinary shares
Marina Tourmaline Shipping Limited	Hong Kong	$ Ordinary shares
SC Digital Solutions Limited	Hong Kong	HKD Ordinary shares
Standard Chartered Leasing Group Limited	Hong Kong	$ Ordinary shares
Standard Chartered Trade Support (HK) Limited	Hong Kong	HKD Ordinary shares
Standard Chartered Trust (Hong Kong) Limited	Hong Kong	HKD Ordinary shares
Standard Chartered Securities (Hong Kong) Limited	Hong Kong	HKD Ordinary shares
Standard Chartered Bank (Hong Kong) Limited	Hong Kong	HKD A Ordinary shares HKD B Ordinary shares $ D Ordinary shares $ C Ordinary shares $ Preference shares
Pembroke Aircraft Leasing 1 Limited	Ireland	€1.00 Ordinary shares
Pembroke Aircraft Leasing 2 Limited	Ireland	€1.00 Ordinary shares
Pembroke Aircraft Leasing 3 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 4 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 5 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 6 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 7 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 8 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 9 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 10 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 11 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing 12 Limited	Ireland	$1.00 Ordinary shares
Pembroke Aircraft Leasing Holdings Limited	Ireland	$1.00 Ordinary shares
Standard Chartered Bank Korea Limited	Korea, Republic of	KRW5,000.00 Ordinary shares
Standard Chartered Securities Korea Limited	Korea, Republic of	KRW5,000.00 Ordinary shares
Marina Morganite Shipping Limited	Malaysia	$ Ordinary shares
Marina Moss Shipping Limited	Malaysia	$1.00 Ordinary shares
Marina Tanzanite Shipping Limited	Malaysia	$ Ordinary shares
Marina Alysse Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Amandier Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Ambroisee Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Angelica Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Aventurine Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Buxus Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Celsie Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Citrine Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Dahlia Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Dittany Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Dorado Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Lilac Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Lolite Shipping Limited	Marshall Islands	$1.00 Ordinary shares

Name	Country of Incorporation	Description of shares
Marina Obsidian Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Pissenlet Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Protea Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Quartz Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Remora Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Turquoise Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Marina Zircon Shipping Limited	Marshall Islands	$1.00 Ordinary shares
Standard Chartered Nominees (Western Samoa) Limited	Samoa	$1.00 Ordinary shares
Marina Aquata Shipping Pte. Ltd.	Singapore	$ Ordinary shares
Marina Aruana Shipping Pte. Ltd.	Singapore	SGD Ordinary shares $ Ordinary shares
Marina Aster Shipping Pte. Ltd.	Singapore	SGD Ordinary shares
Marina Cobia Shipping Pte. Ltd.	Singapore	SGD Ordinary shares $ Ordinary shares
Marina Daffodil Shipping Pte. Ltd.	Singapore	SGD Ordinary shares
Marina Fatmarini Shipping Pte. Ltd.	Singapore	$ Ordinary shares
Marina Frabandari Shipping Pte. Ltd.	Singapore	$ Ordinary shares
Marina Freesia Shipping Pte. Ltd.	Singapore	SGD Ordinary shares
Marina Gerbera Shipping Pte. Ltd.	Singapore	$ Ordinary shares
Marina Mars Shipping Pte. Ltd.	Singapore	SGD Ordinary shares
Marina Mercury Shipping Pte. Ltd.	Singapore	SGD Ordinary shares
Marina Opah Shipping Pte. Ltd.	Singapore	SGD Ordinary shares $ Ordinary shares
Marina Partawati Shipping Pte. Ltd.	Singapore	$ Ordinary shares
Marina Poise Shipping Pte. Ltd.	Singapore	$ Ordinary shares
Standard Chartered Bank (Taiwan) Limited	Taiwan	TWD10.00 Ordinary shares

Joint ventures

Name	Country of Incorporation	Description of shares
Resolution Alliance Limited	Thailand	THB10.00 Ordinary shares

Associates

Name	Country of Incorporation	Description of shares
China Bohai Bank Co. Ltd	China	CNY Ordinary shares

In liquidation

Subsidiary Undertakings

Name	Country of Incorporation	Description of shares
Standard Chartered APR Limited	United Kingdom	$1.00 Ordinary shares
Standard Chartered Global Trading Investments Limited	Hong Kong	HKD Ordinary shares
SC Learning Limited	Hong Kong	HKD Ordinary shares
Daiyang Metal Company Ltd	Korea, Republic of	KRW 500 Ordinary shares KRW 500 Preferred shares KRW 500 Convertible Preference shares

40. Discontinued operations

Accounting policy

A common control transaction is a business combination involving entities or businesses that are all directly or indirectly under the control of the same ultimate parent company, Standard Chartered PLC. Such transactions result in changes in the entities and sub-consolidation groups affected but do not affect the consolidated financial statements of the ultimate parent company.

When an entity under common control is transferred, the acquirer:

- The acquirer recognises the net assets of the entity at their book values in its sub-consolidated financial statements, with the difference between the net book value of the entity and consideration paid being recognised in retained earnings.
- The acquirer recognises the fair value of the investment in subsidiary in its separate financial statements. The treatment of any difference between the fair value of the entity and consideration paid depends on whether the entity is being transferred up (in which case dividend income in profit or loss) or across (in which case retained earnings) the ultimate parent's consolidated group.
- The transferor derecognises the net assets of the entity from its sub-consolidated financial statements. The treatment of any difference between the net book value of the entity and consideration received depends on whether the entity is being transferred up (in which case retained earnings) or across (in which case other income in profit or loss) the ultimate parent's consolidated group.
- The transferor derecognises the investment in subsidiary from its separate financial statements, with the difference between the entity's fair value and book value recognised in other income. The treatment of any difference between the fair value of the entity and consideration received is recognised in the appropriate reserve within equity.

When assets and liabilities that meet the definition of a business per IFRS 3 are transferred in a common control transaction, as oppose to shares of an entity, the acquirer recognises the business in both its sub-consolidated and separate financial statements at net book value. The treatment of gain or loss then follows the rules above for both acquirers and transferors.

Accounting estimates and judgements

The determination of the fair value of the entities transferred is based upon significant estimates, including forecast future cash flows, the determination of the appropriate discount rate, growth rates and terminal values used in the calculation of the present value of those cash flows. Judgement is required when considering appropriate market comparable entity valuations including listed equity prices and price to book ratios, as well as determining the relevant comparable historical entity sale and purchase transactions in determining a fair value range. Judgement is further required when determining a fair value within a range of possible estimates.

Group reorganisation

The Board of the Group approved in 2018 an in principle group reorganisation which would result in Standard Chartered Bank (SCB) transferring its ordinary shares in Standard Chartered Bank (Hong Kong) Limited (SCB HK), Standard Chartered Bank (China) Limited (SCB China), Standard Chartered NEA Limited (SC NEA) and Standard Chartered Bank (Taiwan) Limited (SCB TW) to other entities within the Standard Chartered PLC Group, subject to the receipt of appropriate regulatory approvals.

On 4 March 2019, SCB transferred via a dividend in specie its ordinary shares in SCB HK to Standard Chartered Holdings Limited (SCH). SCH in turn transferred via a dividend in specie 100 per cent of the ordinary shares of SCB HK to Standard Chartered PLC (SC PLC), the Group's ultimate parent.

On 1 June 2019, the Company transferred its shareholding in SCB China to SCB HK in exchange for ordinary shares in SCB HK.

On 3 June 2019, the Company transferred via dividend in specie such SCB HK shares to SCH and in turn, SCH transferred via dividend in specie such SCB HK shares to SC PLC.

On 1 October 2019, the Company transferred its ordinary shares in SC NEA, the holding company of Standard Chartered Bank Korea Limited, to SCB HK, and on the same day, its ordinary shares in SCB TW to SC NEA.

The entities transferred were not previously classified as held-for-sale or as a discontinued operation. The comparative consolidated statements of profit or loss and other comprehensive income has been represented to show the discontinued operation separately from continuing operations.

On a Group basis, a loss on discontinued operations of $4,573 million has been recorded. On a standalone Company basis, a loss on sale of $475 million has been recorded.

Results of the discontinued operations for the year are presented below:

Consolidated income statement

For the year ended 31 December 2019

	2019 $million	2018 $million
Discontinued operations		
Interest income	2,374	5,567
Interest expense	(1,049)	(2,083)
Net interest income	1,325	3,484
Fees and commission income	548	1,528
Fees and commission expense	(122)	(345)
Net fee and commission income	426	1,183
Net trading income	241	717
Other operating income	116	631
Operating income	2,108	6,015
Staff costs	(723)	(1,797)
Premises costs	(69)	(327)
General administrative expenses	(395)	(1,184)
Depreciation and amortisation	(126)	(365)
Operating expenses	(1,313)	(3,673)
Operating profit before impairment losses and taxation	795	2,342
Credit impairment	(47)	(66)
Other impairment	-	(142)
Profit from associates and joint ventures	36	205
Profit before taxation	784	2,339
Taxation	(189)	(389)
Profit from operating activities after taxation	595	1,950
Loss on disposal of discontinued operations:		
Loss on transfer of goodwill	(618)	-
Accumulated exchange differences on translation of foreign operations	(1,432)	-
Loss on sale of discontinued operations	(2,939)	-
Capital gains tax on internal restructuring	(179)	-
(Loss)/profit from discontinued operations after taxation	(4,573)	1,950

Consolidated statement of comprehensive income

For the year ended 31 December 2019

	2019 $million	2018 $million
(Loss)/Profit for the year	**(4,573)**	1,950
Other comprehensive (loss)/income		
Items that will not be reclassified to income statement:	**(10)**	90
Own credit (losses)/gains on financial liabilities designated at fair value through profit or loss	**(3)**	95
Equity instruments at fair value through other comprehensive income	**(1)**	36
Actuarial losses on retirement benefit obligations	**(9)**	(42)
Taxation relating to components of other comprehensive income	**3**	1
Items that may be reclassified subsequently to income statement:	**1,355**	(266)
Exchange differences on translation of foreign operations:		
Net gain/(losses) taken to equity	**1,327**	(381)
Share of other comprehensive (loss)/income from associates and joint ventures	**(5)**	35
Debt instruments at fair value through other comprehensive income:		
Net valuation gains taken to equity	**34**	74
Reclassified to income statement	**(6)**	(6)
Net impact of expected credit losses	**-**	(4)
Cashflow hedges:		
Net (losses)/gains taken to equity	**(2)**	26
Reclassified to income statement	**9**	12
Taxation relating to components of other comprehensive income	**(2)**	(22)
Other comprehensive income/(loss) for the year, net of taxation	**1,345**	(176)
Total comprehensive (loss)/income for the year	**(3,228)**	1,774

Glossary

AT1 or Additional Tier 1 capital

Additional Tier 1 capital consists of instruments other than Common Equity Tier 1 that meet the Capital Requirements Regulation (CRR) criteria for inclusion in Tier 1 capital.

Additional value adjustment

See Prudent valuation adjustment.

Advanced Internal Rating Based (AIRB) approach

The AIRB approach under the Basel framework is used to calculate credit risk capital based on the Group's own estimates of prudential parameters.

Alternative performance measures

A financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework.

ASEAN

Association of South East Asian Nations (ASEAN) which includes the Group's operations in Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam.

AUM or Assets under management

Total market value of assets such as deposits, securities and funds held by the Group on behalf of the clients.

Basel II

The capital adequacy framework issued by the Basel Committee on Banking Supervision (BCBS) in June 2006 in the form of the International Convergence of Capital Measurement and Capital Standards.

Basel III

The global regulatory standards on bank capital adequacy and liquidity, originally issued in December 2010 and updated in June 2011. In December 2017, the BCBS published a document setting out the finalisation of the Basel III framework. The latest requirements issued in December 2017 will be implemented from 2022.

BCBS or Basel Committee on Banking Supervision

A forum on banking supervisory matters which develops global supervisory standards for the banking industry. Its members are officials from 45 central banks or prudential supervisors from 28 countries and territories.

Basic earnings per share (EPS)

Represents earnings divided by the basic weighted average number of shares.

Basis point (bps)

One hundredth of a per cent (0.01 per cent); 100 basis points is 1 per cent.

CRD IV or Capital Requirements Directive IV

A capital adequacy legislative package adopted by EU member states. CRD IV comprises the recast Capital Requirements Directive and the Capital Requirements Regulation (CRR). The package implements the Basel III framework together with transitional arrangements for some of its requirements. CRD IV came into force on 1 January 2014. CRR II and CRD V amending the existing package came into force in June 2019 with most changes starting to apply from 28 June 2021.

Capital-lite income

Income derived from products with low RWA consumption or products which are non-funding in nature.

Capital resources

Sum of Tier 1 and Tier 2 capital after regulatory adjustments.

CGU or Cash-generating unit

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.

Cash shortfall

The difference between the cash flows that are due in accordance with the contractual terms of the instrument and the cash flows that the Group expects to receive over the contractual life of the instrument.

Clawback

An amount an individual is required to pay back to the Group, which has to be returned to the Group under certain circumstances.

Commercial real estate

Includes office buildings, industrial property, medical centres, hotels, malls, retail stores, shopping centres, farm land, multi-family housing buildings, warehouses, garages, and industrial properties. Commercial real estate loans are those backed by a package of commercial real estate assets.

CET1 or Common Equity Tier 1 capital

Common Equity Tier 1 capital consists of the common shares issued by the Group and related share premium, retained earnings, accumulated other comprehensive income and other disclosed reserves, eligible non-controlling interests and regulatory adjustments required in the calculation of Common Equity Tier 1.

CET1 ratio

A measure of the Group's CET1 capital as a percentage of risk-weighted assets.

Contractual maturity

Contractual maturity refers to the final payment date of a loan or other financial instrument, at which point all the remaining outstanding principal and interest is due to be paid.

Countercyclical capital buffer

The countercyclical capital buffer (CCyB) is part of a set of macroprudential instruments, designed to help counter procyclicality in the financial system. CCyB as defined in the Basel III standard provides for an additional capital requirement of up to 2.5 per cent of risk-weighted assets in a given jurisdiction. The Bank of England's Financial Policy Committee has the power to set the CCyB rate for the United Kingdom. Each bank must calculate its 'institution-specific' CCyB rate, defined as the weighted average of the CCyB rates in effect across the jurisdictions in which it has credit exposures. The institution-specific CCyB rate is then applied to a bank's total risk-weighted assets.

Counterparty credit risk

The risk that a counterparty defaults before satisfying its obligations under a derivative, a securities financing transaction (SFT) or a similar contract.

CCF or Credit conversion factor

An estimate of the amount the Group expects a customer to have drawn further on a facility limit at the point of default. This is either prescribed by CRR or modelled by the bank.

CDS or Credit default swaps

A credit derivative is an arrangement whereby the credit risk of an asset (the reference asset) is transferred from the buyer to the seller of protection. A credit default swap is a contract where the protection seller receives premium or interest-related payments in return for contracting to make payments to the protection buyer upon a defined credit event. Credit events normally include bankruptcy, payment default on a reference asset or assets, or downgrades by a rating agency.

Credit institutions

An institution whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account.

Credit risk mitigation

Credit risk mitigation is a process to mitigate potential credit losses from any given account, customer or portfolio by using a range of tools such as collateral, netting agreements, credit insurance, credit derivatives and guarantees.

CVA or Credit valuation adjustments

An adjustment to the fair value of derivative contracts that reflects the possibility that the counterparty may default such that the Group would not receive the full market value of the contracts.

Glossary

Customer accounts

Money deposited by all individuals and companies which are not credit institutions including securities sold under repurchase agreement (see repo/reverse repo). Such funds are recorded as liabilities in the Group's balance sheet under customer accounts.

Days past due

One or more days that interest and/or principal payments are overdue based on the contractual terms.

DVA or Debit valuation adjustment

An adjustment to the fair value of derivative contracts that reflects the possibility that the Group may default and not pay the full market value of contracts.

Debt securities

Debt securities are assets on the Group's balance sheet and represent certificates of indebtedness of credit institutions, public bodies or other undertakings excluding those issued by central banks.

Debt securities in issue

Debt securities in issue are transferrable certificates of indebtedness of the Group to the bearer of the certificate. These are liabilities of the Group and include certificates of deposits.

DTA or Deferred tax asset

Income taxes recoverable in future periods in respect of deductible temporary differences between the accounting and tax base of an asset or liability that will result in tax deductible amounts in future periods, the carry-forward of tax losses or the carry-forward of unused tax credits.

DTL or Deferred tax liability

Income taxes payable in future periods in respect of taxable temporary differences between the accounting and tax base of an asset or liability that will result in taxable amounts in future periods.

Default

Financial assets in default represent those that are at least 90 days past due in respect of principal or interest and/or where the assets are otherwise considered to be unlikely to pay, including those that are credit-impaired.

Defined benefit obligation

The present value of expected future payments required to settle the obligations of a defined benefit scheme resulting from employee service.

Defined benefit scheme

Pension or other post-retirement benefit scheme other than a defined contribution scheme.

Defined contribution scheme

A pension or other post-retirement benefit scheme where the employer's obligation is limited to its contributions to the fund.

Delinquency

A debt or other financial obligation is considered to be in a state of delinquency when payments are overdue. Loans and advances are considered to be delinquent when consecutive payments are missed. Also known as arrears.

Deposits by banks

Deposits by banks comprise amounts owed to other domestic or foreign credit institutions by the Group including securities sold under repo.

Diluted earnings per share (EPS)

Represents earnings divided by the diluted weighted average number of shares.

Dividend per share

Represents the entitlement of each shareholder in the share of the profits of the Company. Calculated in the lowest unit of currency in which the shares are quoted.

Early alert, purely and non-purely precautionary

A borrower's account which exhibits risks or potential weaknesses of a material nature requiring closer monitoring, supervision, or attention by management. Weaknesses in such a borrower's account, if left uncorrected, could result in deterioration of repayment prospects and the likelihood of being downgraded to credit grade 12 or worse. When an account is on early alert, it is classified as either purely precautionary or non-purely precautionary. A purely precautionary account is one that exhibits early alert characteristics, but these do not present any imminent credit concern. If the symptoms present an imminent credit concern, an account will be considered for classification as non-purely precautionary.

Effective tax rate

The tax on profit/ (losses) on ordinary activities as a percentage of profit/ (loss) on ordinary activities before taxation.

Encumbered assets

On-balance sheet assets pledged or used as collateral in respect of certain of the Group's liabilities.

EU or European Union

The European Union (EU) is a political and economic union of 28 member states that are located primarily in Europe.

Eurozone

Represents the 19 EU countries that have adopted the euro as their common currency.

ECL or Expected credit loss

Represents the present value of expected cash shortfalls over the residual term of a financial asset, undrawn commitment or financial guarantee.

Expected loss

The Group measure of anticipated loss for exposures captured under an internal ratings-based credit risk approach for capital adequacy calculations. It is measured as the Group-modelled view of anticipated loss based on probability of default, loss given default and exposure at default, with a one-year time horizon.

Exposures

Credit exposures represent the amount lent to a customer, together with any undrawn commitments.

EAD or Exposure at default

The estimation of the extent to which the Group may be exposed to a customer or counterparty in the event of, and at the time of, that counterparty's default. At default, the customer may not have drawn the loan fully or may already have repaid some of the principal, so that exposure is typically less than the approved loan limit.

ECAI or External Credit Assessment Institution

External credit ratings are used to assign risk-weights under the standardised approach for sovereigns, corporates and institutions. The external ratings are from credit rating agencies that are registered or certified in accordance with the credit rating agencies regulation or from a central bank issuing credit ratings which is exempt from the application of this regulation.

FCA or Financial Conduct Authority

The Financial Conduct Authority regulates the conduct of financial firms and, for certain firms, prudential standards in the UK. It has a strategic objective to ensure that the relevant markets function well.

Forbearance

Forbearance takes place when a concession is made to the contractual terms of a loan in response to an obligor's financial difficulties. The Group classifies such modified loans as either 'Forborne – not impaired loans' or 'Loans subject to forbearance – impaired'. Once a loan is categorised as either of these, it will remain in one of these two categories until the loan matures or satisfies the 'curing' conditions described in Note 8 to the financial statements.

Glossary

Forborne – not impaired loans

Loans where the contractual terms have been modified due to financial difficulties of the borrower, but the loan is not considered to be impaired. See 'Forbearance'.

Free deliveries

A transaction where a bank takes receipt of a debt or equity security, a commodity or foreign exchange without making immediate payment, or where a bank delivers a debt or equity security, a commodity or foreign exchange without receiving immediate payment.

Free funds

Free funds include equity capital, retained reserves, current year unremitted profits and capital injections net of proposed dividends. It does not include debt capital instruments, unrealised profits or losses or any non-cash items.

Funded/unfunded exposures

Exposures where the notional amount of the transaction is funded or unfunded. Represents exposures where a commitment to provide future funding is made but funds have been released/ not released.

FVA or Funding valuation adjustments

FVA reflects an adjustment to fair value in respect of derivative contracts that reflects the funding costs that the market participant would incorporate when determining an exit price.

GCNA hub

See 'Hong Kong regional hub'

G-SIBs or Global Systemically Important Banks

Global banking financial institutions whose size, complexity and systemic interconnectedness mean that their distress or failure would cause significant disruption to the wider financial system and economic activity. The list of G-SIBs is assessed under a framework established by the FSB and the BCBS. In the EU, the G-SIB framework is implemented via CRD IV and G-SIBs are referred to as Global Systemically Important Institutions (G-SIIs).

G-SIB buffer

A CET1 capital buffer which results from designation as a G-SIB. The G-SIB buffer is between 1 per cent and 3.5 per cent, depending on the allocation to one of five buckets based on the annual scoring. In the EU, the G-SIB buffer is implemented via CRD IV as Global Systemically Important Institutions (G-SII) buffer requirement.

Hong Kong regional hub

Standard Chartered Bank (Hong Kong) Limited and its subsidiaries including the primary operating entities in China, Korea and Taiwan. Standard Chartered PLC is the ultimate parent company of Standard Chartered Bank (Hong Kong) Limited.

Interest rate risk

The risk of an adverse impact on the Group's income statement due to changes in interest rates.

IRB or internal ratings-based approach

Risk-weighting methodology in accordance with the Basel Capital Accord where capital requirements are based on a firm's own estimates of prudential parameters.

IMA approach or internal model approach

The approach used to calculate market risk capital and RWA with an internal market risk model approved by the PRA under the terms of CRD IV/CRR.

IAS or International Accounting Standard

A standard that forms part of the International Financial Reporting Standards framework.

IASB or International Accounting Standards Board

An independent standard-setting body responsible for the development and publication of IFRS, and approving interpretations of IFRS standards that are recommended by the IFRS Interpretations Committee (IFRIC).

IFRS or International Financial Reporting Standards

A set of international accounting standards developed and issued by the International Accounting Standards Board, consisting of principles-based guidance contained within IFRSs and IASs. All companies that have issued publicly traded securities in the EU are required to prepare annual and interim reports under IFRS and IAS standards that have been endorsed by the EU.

IFRIC

The IFRS Interpretations Committee supports the IASB in providing authoritative guidance on the accounting treatment of issues not specifically dealt with by existing IFRSs and IASs.

Investment grade

A debt security, treasury bill or similar instrument with a credit rating measured by external agencies of AAA to BBB.

Leverage ratio

A ratio introduced under CRD IV that compares Tier 1 capital to total exposures, including certain exposures held off-balance sheet as adjusted by stipulated credit conversion factors. Intended to be a simple, non-risk-based backstop measure.

Liquid asset ratio

Ratio of total liquid assets to total assets. Liquid assets comprise cash (less restricted balances), net interbank, treasury bills and debt securities less illiquid securities.

Liquidation portfolio

A portfolio of assets which is beyond our current risk appetite metrics and is held for liquidation.

LCR or Liquidity coverage ratio

The ratio of the stock of high-quality liquid assets to expected net cash outflows over the following 30 days. High-quality liquid assets should be unencumbered, liquid in markets during a time of stress and, ideally, be central bank eligible.

Loan exposure

Loans and advances to customers reported on the balance sheet held at amortised cost or FVOCI, non-cancellable credit commitments and cancellable credit commitments for credit cards and overdraft facilities.

Loans and advances to customers

This represents lending made under bilateral agreements with customers entered into in the normal course of business and is based on the legal form of the instrument.

Loans and advances to banks

Amounts loaned to credit institutions including securities bought under Reverse repo.

LTV or loan-to-value ratio

A calculation which expresses the amount of a first mortgage lien as a percentage of the total appraised value of real property. The loan-to-value ratio is used in determining the appropriate level of risk for the loan and therefore the correct price of the loan to the borrower.

Loans past due

Loans on which payments have been due for up to a maximum of 90 days including those on which partial payments are being made.

Loans subject to forbearance – impaired

Loans where the terms have been renegotiated on terms not consistent with current market levels due to financial difficulties of the borrower. Loans in this category are necessarily impaired. See 'Forbearance'.

Loss rate

Uses an adjusted gross charge-off rate, developed using monthly write-off and recoveries over the preceding 12 months and total outstanding balances.

LGD or Loss given default

The percentage of an exposure that a lender expects to lose in the event of obligor default.

Glossary

Low returning clients

See 'Perennial sub-optimal clients'.

Malus

An arrangement that permits the Group to prevent vesting of all or part of the amount of an unvested variable remuneration award, due to a specific crystallised risk, behaviour, conduct or adverse performance outcome.

Master netting agreement

An agreement between two counterparties that have multiple derivative contracts with each other that provides for the net settlement of all contracts through a single payment, in a single currency, in the event of default on, or termination of, any one contract.

Mezzanine capital

Financing that combines debt and equity characteristics. For example, a loan that also confers some profit participation to the lender.

MREL or minimum requirement for own funds and eligible liabilities

A requirement under the Bank Recovery and Resolution Directive for EU resolution authorities to set a minimum requirement for own funds and eligible liabilities for banks, implementing the FSB's Total Loss Absorbing Capacity (TLAC) standard. MREL is intended to ensure that there is sufficient equity and specific types of liabilities to facilitate an orderly resolution that minimises any impact on financial stability and ensures the continuity of critical functions and avoids exposing taxpayers to loss.

Net asset value (NAV) per share

Ratio of net assets (total assets less total liabilities) to the number of ordinary shares outstanding at the end of a reporting period.

Net exposure

The aggregate of loans and advances to customers/loans and advances to banks after impairment provisions, restricted balances with central banks, derivatives (net of master netting agreements), investment debt and equity securities, and letters of credit and guarantees.

Network income

Income generated outside of a client group's headquarter country, mainly within Corporate & Institutional Banking and Commercial Banking

NII or Net interest income

The difference between interest received on assets and interest paid on liabilities.

NSFR or Net stable funding ratio

The ratio of available stable funding to required stable funding over a one-year time horizon, assuming a stressed scenario. It is a longer-term liquidity measure designed to restrain the amount of wholesale borrowing and encourage stable funding over a one-year time horizon.

NPLs or non-performing loans

An NPL is any loan that is more than 90 days past due or is otherwise individually impaired. This excludes Retail loans renegotiated at or after 90 days past due, but on which there has been no default in interest or principal payments for more than 180 days since renegotiation, and against which no loss of principal is expected.

Non-linearity

Non-linearity of expected credit loss occurs when the average of expected credit loss for a portfolio is higher than the base case (median) due to the fact that bad economic environment could have a larger impact on ECL calculation than good economic environment.

Normalised items

See 'Underlying earnings'.

Operating expenses

Staff and premises costs, general and administrative expenses, depreciation and amortisation. Underlying operating expenses exclude expenses as described in 'Underlying earnings'. A reconciliation between underlying and statutory earnings is contained in Note 2 to the financial statements.

Operating income or operating profit

Net interest, net fee and net trading income, as well as other operating income. Underlying operating income represents the income line items above, on an underlying basis. See 'Underlying earnings'.

OTC or Over-the-counter derivatives

A bilateral transaction (e.g. derivatives) that is not exchange traded and that is valued using valuation models.

OCA or Own credit adjustment

An adjustment to the Group's issued debt designated at fair value through profit or loss that reflects the possibility that the Group may default and not pay the full market value of the contracts.

Perennial sub-optimal clients

Clients that have returned below 3% return on risk-weighted assets for the last three years

Physical risks

The risk of increased extreme weather events including flood, drought and sea level rise.

Pillar 1

The first pillar of the three pillars of the Basel framework which provides the approach to calculation of the minimum capital requirements for credit, market and operational risk. Minimum capital requirements are 8 per cent of the Group's risk-weighted assets.

Pillar 2

The second pillar of the three pillars of the Basel framework which requires banks to undertake a comprehensive assessment of their risks and to determine the appropriate amounts of capital to be held against these risks where other suitable mitigants are not available.

Pillar 3

The third pillar of the three pillars of the Basel framework which aims to provide a consistent and comprehensive disclosure framework that enhances comparability between banks and further promotes improvements in risk practices.

Priority Banking

Priority Banking customers are individuals who have met certain criteria for deposits, AUM, mortgage loans or monthly payroll. Criteria varies by country.

Private equity investments

Equity securities in operating companies generally not quoted on a public exchange. Investment in private equity often involves the investment of capital in private companies. Capital for private equity investment is raised by retail or institutional investors and used to fund investment strategies such as leveraged buyouts, venture capital, growth capital, distressed investments and mezzanine capital.

PD or Probability of default

PD is an internal estimate for each borrower grade of the likelihood that an obligor will default on an obligation over a given time horizon.

Probability weighted

Obtained by considering the values the metric can assume, weighted by the probability of each value occurring.

Profit (loss) attributable to ordinary shareholders

Profit (loss) for the year after non-controlling interests and dividends declared in respect of preference shares classified as equity.

PVA or Prudent valuation adjustment

An adjustment to CET1 capital to reflect the difference between fair value and prudent value positions, where the application of prudence results in a lower absolute carrying value than recognised in the financial statements.

PRA or Prudential Regulation Authority

The Prudential Regulation Authority is the statutory body responsible for the prudential supervision of banks, building societies, credit unions, insurers and a small number of significant investment firms in the UK. The PRA is a part of the Bank of England.

Glossary

Repo/reverse repo

A repurchase agreement or repo is a short-term funding agreement, which allows a borrower to sell a financial asset, such as asset-backed securities or government bonds as collateral for cash. As part of the agreement the borrower agrees to repurchase the security at some later date, usually less than 30 days, repaying the proceeds of the loan. For the party on the other end of the transaction (buying the security and agreeing to sell in the future), it is a reverse repurchase agreement or reverse repo.

Residential mortgage

A loan to purchase a residential property which is then used as collateral to guarantee repayment of the loan. The borrower gives the lender a lien against the property, and the lender can foreclose on the property if the borrower does not repay the loan per the agreed terms. Also known as a home loan.

RoRWA or Return on risk-weighted assets

Profit before tax for year as a percentage of RWA. Profit may be statutory or underlying and is specified where used. See ‘RWA’ and ‘Underlying earnings’.

RWA or Risk-weighted assets

A measure of a bank’s assets adjusted for their associated risks, expressed as a percentage of an exposure value in accordance with the applicable standardised or IRB approach provisions.

Risks-not-in-VaR (RNIV)

A framework for identifying and quantifying marginal types of market risk that are not captured in the Value at Risk (VaR) measure for any reason, such as being a far-tail risk or the necessary historical market data not being available.

Roll rate

Uses a matrix that gives average loan migration rate from delinquency states from period to period. A matrix multiplication is then performed to generate the final PDs by delinquency bucket over different time horizons.

Secured (fully and partially)

A secured loan is a loan in which the borrower pledges an asset as collateral for a loan which, in the event that the borrower defaults, the Group is able to take possession of. All secured loans are considered fully secured if the fair value of the collateral is equal to or greater than the loan at the time of origination. All other secured loans are considered to be partly secured.

Securitisation

Securitisation is a process by which credit exposures are aggregated into a pool, which is used to back new securities. Under traditional securitisation transactions, assets are sold to a structured entity (SE) which then issues new securities to investors at different levels of seniority (credit tranching). This allows the credit quality of the assets to be separated from the credit rating of the originating institution and transfers risk to external investors in a way that meets their risk appetite. Under synthetic securitisation transactions, the transfer of risk is achieved by the use of credit derivatives or guarantees, and the exposures being securitised remain exposures of the originating institution.

Senior debt

Debt that takes priority over other unsecured or otherwise more ‘junior’ debt owed by the issuer. Senior debt has greater seniority in the issuer's capital structure than subordinated debt. In the event the issuer goes bankrupt, senior debt theoretically must be repaid before other creditors receive any payment.

SICR or Significant increase in credit risk

Assessed by comparing the risk of default of an exposure at the reporting date to the risk of default at origination (after considering the passage of time).

Solo

The solo regulatory group as defined in the Prudential Regulation Authority waiver letter dated 24 August 2017 differs from Standard Chartered Bank Company in that it includes the full consolidation of eight subsidiaries, namely Standard Chartered Holdings (International) B.V., Standard Chartered MB Holdings B.V, Standard chartered UK Holdings Limited, Standard Chartered Grindlays PTY Limited, SCMB Overseas Limited, Standard Chartered Capital Management (Jersey) LLC, Standard Chartered Debt Trading Limited and Cerulean Investments LP.

Sovereign exposures

Exposures to central governments and central government departments, central banks and entities owned or guaranteed by the aforementioned. Sovereign exposures, as defined by the European Banking Authority, include only exposures to central governments.

Stage 1

Assets have not experienced a significant increase in credit risk since origination and impairment recognised on the basis of 12 months expected credit losses.

Stage 2

Assets have experienced a significant increase in credit risk since origination and impairment is recognised on the basis of lifetime expected credit losses.

Stage 3

Assets that are in default and considered credit-impaired (non-performing loans).

Standardised approach

In relation to credit risk, a method for calculating credit risk capital requirements using External Credit Assessment Institutions (ECAI) ratings and supervisory risk weights. In relation to operational risk, a method of calculating the operational capital requirement by the application of a supervisory defined percentage charge to the gross income of eight specified business lines.

Structured note

An investment tool which pays a return linked to the value or level of a specified asset or index and sometimes offers capital protection if the value declines. Structured notes can be linked to equities, interest rates, funds, commodities and foreign currency.

Subordinated liabilities

Liabilities which, in the event of insolvency or liquidation of the issuer, are subordinated to the claims of depositors and other creditors of the issuer.

Tier 1 capital

The sum of Common Equity Tier 1 capital and Additional Tier 1 capital.

Tier 1 capital ratio

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

Tier 2 capital

Tier 2 capital comprises qualifying subordinated liabilities and related share premium accounts.

TLAC or Total loss absorbing capacity

An international standard for TLAC issued by the FSB, which requires G-SIBs to have sufficient loss-absorbing and recapitalisation capacity available in resolution, to minimise impacts on financial stability, maintain the continuity of critical functions and avoid exposing public funds to loss.

Transition risks

The risk of changes to market dynamics or sectoral economics due to governments’ response to climate change.

UK bank levy

A levy that applies to certain UK banks and the UK operations of foreign banks. The levy is payable each year based on a percentage of the chargeable equities and liabilities on the Group’s consolidated balance sheet date. Key exclusions from chargeable equities and liabilities include Tier 1 capital, insured or guaranteed retail deposits, repos secured on certain sovereign debt and liabilities subject to netting.

Unbiased

Not overly optimistic or pessimistic, represents information that is not slanted, weighted, emphasised, de-

emphasised or otherwise manipulated to increase the probability that the financial information will be received favourably or unfavourably by users.

Unlikely to pay

Indications of unlikeliness to pay shall include placing the credit obligation on non-accrued status; the recognition of a specific credit adjustment resulting from a significant perceived decline in credit quality subsequent to the Group taking on the exposure; selling the credit obligation at a material credit-related economic loss; the Group consenting to a distressed restructuring of the credit obligation where this is likely to result in a diminished financial obligation caused by the material forgiveness, or postponement, of principal, interest or, where relevant fees; filing for the obligor's bankruptcy or a similar order in respect of an obligor's credit obligation to the Group; the obligor has sought or has been placed in bankruptcy or similar protection where this would avoid or delay repayment of a credit obligation to the Group.

VaR or Value at Risk

A quantitative measure of market risk estimating the potential loss that will not be exceeded in a set time period at a set statistical confidence level.

ViU or Value-in-Use

The present value of the future expected cash flows expected to be derived from an asset or CGU.

Write-downs

After an advance has been identified as impaired and is subject to an impairment provision, the stage may be reached whereby it is concluded that there is no realistic prospect of further recovery. Write-downs will occur when, and to the extent that, the whole or part of a debt is considered irrecoverable.

XVA

The term used to incorporate credit, debit and funding valuation adjustments to the fair value of derivative financial instruments. See ‘CVA’, ‘DVA’ and ‘FVA’.