Consolidated income statement

For the year ended 31 December 2018

	Notes	31.12.18 $million	31.12.17 $million
Interest income		**17,264**	14,435
Interest expense		**(8,471)**	(6,254)
Net interest income	3	**8,793**	8,181
Fees and commission income		**4,029**	3,942
Fees and commission expense		**(537)**	(430)
Net fee and commission income	4	**3,492**	3,512
Net trading income	5	**1,683**	1,527
Other operating income	6	**821**	1,205
Operating income		**14,789**	14,425
Staff costs		**(7,074)**	(6,758)
Premises costs		**(790)**	(823)
General administrative expenses		**(2,926)**	(2,007)
Depreciation and amortisation		**(857)**	(829)
Operating expenses	7	**(11,647)**	(10,417)
Operating profit before impairment losses and taxation		**3,142**	4,008
Credit impairment	8	**(653)**	(1,362)
Other impairment			
Goodwill	9	**–**	(320)
Other	9	**(182)**	(179)
Profit from associates and joint ventures	32	**241**	268
Profit before taxation		**2,548**	2,415
Taxation	10	**(1,439)**	(1,147)
Profit for the year		**1,109**	1,268
Profit attributable to:			
Non-controlling interests	29	**55**	49
Parent company shareholders		**1,054**	1,219
Profit for the year		**1,109**	1,268
		cents	cents
Earnings per share:			
Basic earnings per ordinary share	12	**18.7**	23.5
Diluted earnings per ordinary share	12	**18.5**	23.3

The Notes on pages 244 to 355 form an integral part of these financial statements.

Consolidated statement of comprehensive income

For the year ended 31 December 2018

	Notes	31.12.18 $million	31.12.17 $million
Profit for the year		**1,109**	1,268
Other comprehensive (loss)/income			
Items that will not be reclassified to income statement:		**382**	(238)
Own credit gains/(losses) on financial liabilities designated at fair value through profit or loss		**394**	(249)
Equity instruments at fair value through other comprehensive income		**36**	–
Actuarial (losses)/gains on retirement benefit obligations	30	**(19)**	32
Taxation relating to components of other comprehensive income	10	**(29)**	(21)
Items that may be reclassified subsequently to income statement:		**(1,189)**	1,532
Exchange differences on translation of foreign operations:			
Net (losses)/gains taken to equity		**(1,462)**	1,637
Net gains/(losses) on net investment hedges		**282**	(288)
Share of other comprehensive income/(loss) from associates and joint ventures		**33**	(1)
Debt instruments at fair value through other comprehensive income/available-for-sale investments:			
Net valuation (losses)/gains taken to equity		**(128)**	369
Reclassified to income statement		**31**	(233)
Cash flow hedges:			
Net gains taken to equity		**34**	35
Reclassified to income statement	14	**7**	11
Taxation relating to components of other comprehensive income	10	**14**	2
Other comprehensive (loss)/income for the year, net of taxation		**(807)**	1,294
Total comprehensive income for the year		**302**	2,562
Total comprehensive income attributable to:			
Non-controlling interests	29	**34**	50
Parent company shareholders		**268**	2,512
Total comprehensive income for the year		**302**	2,562

Consolidated balance sheet

As at 31 December 2018

	Notes	**31.12.18 $million**	31.12.17 $million
Assets			
Cash and balances at central banks	13,35	**57,511**	58,864
Financial assets held at fair value through profit or loss	13	**87,132**	27,564
Derivative financial instruments	13,14	**45,621**	47,031
Loans and advances to banks[1]	13,15	**61,414**	78,188
Loans and advances to customers[2]	13,15	**256,557**	282,288
Investment securities	13	**125,901**	117,025
Other assets	20	**35,401**	33,490
Current tax assets	10	**492**	491
Prepayments and accrued income		**2,505**	2,307
Interests in associates and joint ventures	32	**2,307**	2,307
Goodwill and intangible assets	17	**5,056**	5,013
Property, plant and equipment	18	**6,490**	7,211
Deferred tax assets	10	**1,047**	1,177
Assets classified as held for sale	21	**1,328**	545
Total assets		**688,762**	663,501
Liabilities			
Deposits by banks	13	**29,715**	30,945
Customer accounts	13	**391,013**	370,509
Repurchase agreements and other similar secured borrowing	13,16	**1,401**	39,783
Financial liabilities held at fair value through profit or loss	13	**60,700**	16,633
Derivative financial instruments	13,14	**47,209**	48,101
Debt securities in issue	13,22	**46,454**	46,379
Other liabilities	23	**38,309**	35,257
Current tax liabilities	10	**676**	376
Accruals and deferred income		**5,393**	5,493
Subordinated liabilities and other borrowed funds	13,27	**15,001**	17,176
Deferred tax liabilities	10	**563**	404
Provisions for liabilities and charges	24	**1,330**	183
Retirement benefit obligations	30	**399**	455
Liabilities included in disposal groups held for sale	21	**247**	–
Total liabilities		**638,410**	611,694
Equity			
Share capital and share premium account	28	**7,111**	7,097
Other reserves		**11,878**	12,767
Retained earnings		**26,129**	26,641
Total parent company shareholders' equity		**45,118**	46,505
Other equity instruments	28	**4,961**	4,961
Total equity excluding non-controlling interests		**50,079**	51,466
Non-controlling interests	29	**273**	341
Total equity		**50,352**	51,807
Total equity and liabilities		**688,762**	663,501

1 Reverse repurchase agreements and other similar secured lending balances held at amortised cost of $3,815 million (31 December 2017: $20,694 million) have been included with loans and advances to banks

2 Reverse repurchase agreements and other similar secured lending balances held at amortised cost of $3,151 million (31 December 2017: $33,581 million) have been included with loans and advances to customers

The Notes on pages 244 to 355 form an integral part of these financial statements.

These financial statements were approved by the Board of directors and authorised for issue on 26 February 2019 and signed on its behalf by:

José Viñals
Chairman

Bill Winters
Group Chief Executive

Andy Halford
Group Chief Financial Officer

Consolidated statement of changes in equity

For the year ended 31 December 2018

	Share capital and share premium account $million	Capital and merger reserves[1] $million	Own credit adjustment reserve $million	Available-for-sale 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
At 1 January 2017	7,091	17,129	289	(4)	–	–	(85)	(5,805)	25,753	44,368	3,969	321	48,658
Profit after tax for the year	–	–	–	–	–	–	–	–	1,219	1,219	–	49	1,268
Other comprehensive (loss)/income	–	–	(235)	87	–	–	40	1,351	50[2]	1,293	–	1	1,294
Distributions	–	–	–	–	–	–	–	–	–	–	–	(51)	(51)
Shares issued, net of expenses	6	–	–	–	–	–	–	–	–	6	–	–	6
Other equity instruments issued, net of expenses	–	–	–	–	–	–	–	–	–	–	992	–	992
Net own shares adjustment	–	–	–	–	–	–	–	–	10	10	–	–	10
Share option expense, net of taxation	–	–	–	–	–	–	–	–	125	125	–	–	125
Dividends[3]	–	–	–	–	–	–	–	–	(445)	(445)	–	–	(445)
Other movements[4]	–	–	–	–	–	–	–	–	(71)	(71)	–	21[5]	(50)
As at 31 December 2017	7,097	17,129	54	83	–	–	(45)	(4,454)	26,641	46,505	4,961	341	51,807
IFRS 9 reclassifications[6]	–	–	–	(83)	(131)	45	–	–	169	–	–	–	–
IFRS 9 re-measurements[6]	–	–	–	–	–	4	–	–	31	35	–	–	35
Expected credit loss, net	–	–	–	–	65	–	–	–	(1,074)[7]	(1,009)	–	(8)	(1,017)
Tax impact	–	–	–	–	(11)	5	–	–	179	173	–	–	173
Impact of IFRS 9 on share of joint ventures and associates, net of tax	–	–	–	–	–	(1)	–	–	(51)	(52)	–	–	(52)
IFRS 9 transition adjustments	–	–	–	(83)	(77)	53	–	–	(746)	(853)	–	(8)	(861)
As at 1 January 2018	**7,097**	**17,129**	**54**	**–**	**(77)**	**53**	**(45)**	**(4,454)**	**25,895**	**45,652**	**4,961**	**333**	**50,946**
Profit after tax for the year	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**1,054**	**1,054**	**–**	**55**	**1,109**
Other comprehensive income/(loss)	**–**	**–**	**358**	**–**	**(84)**	**67**	**35**	**(1,158)**	**(4)**[2]	**(786)**	**–**	**(21)**	**(807)**
Distributions	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(97)**	**(97)**
Shares issued, net of expenses	**14**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**14**	**–**	**–**	**14**
Net own shares adjustment	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**1**	**1**	**–**	**–**	**1**
Share option expense, net of taxation	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**158**	**158**	**–**	**–**	**158**
Dividends[3]	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(975)**	**(975)**	**–**	**–**	**(975)**
Other movements	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**3**[8]	**3**
As at 31 December 2018	**7,111**	**17,129**	**412**	**–**	**(161)**	**120**	**(10)**	**(5,612)**	**26,129**	**45,118**	**4,961**	**273**	**50,352**

1 Includes capital reserve of $5 million, capital redemption reserve of $13 million and merger reserve of $17,111 million

2 Comprises actuarial gain/(loss), net of taxation and share from associates and joint ventures $(4) million (31 December 2017: $50 million)

3 Comprises dividends paid net of scrip $539 million (31 December 2017: $nil) and dividends on preference shares classified as equity and Additional Tier 1 securities $436 million (31 December 2017: $445 million). (refer Note 11)

4 Other movements of $(71) million is mainly due to issue of shares by Nepal to its non-controlling interests including premium ($19 million) as the adjustment to the carrying value of Group's share of the issue. This is offset by other equity adjustments of $(90) million

5 Other movements of $21 million relates to issue of shares by Nepal to its non-controlling interests including premium ($12 million) as the increase in non-controlling interest. The remaining $9 million relates to an acquisition

6 As per Note 41 Transition to IFRS 9 Financial Instruments

7 The Group's initial estimate of credit impairment provisions on adoption of IFRS 9 was $6,720 million. Following refinement of the Group's expected loss models, the estimate of the opening credit impairment provisions has been revised down by $222 million to $6,498 million, and the net expected credit loss of $(1,296) million adjusted against retained earnings has similarly decreased by $222 million to $1,074 million

8 Mainly due to additional share capital issued by Angola subscribed by its non-controlling interests without change in shareholding percentage

Note 28 includes a description of each reserve.

The Notes on pages 244 to 355 form an integral part of these financial statements.

Cash flow statement

For the year ended 31 December 2018

	Notes	Group 31.12.18 $million	Group 31.12.17 $million	Company 31.12.18 $million	Company 31.12.17 $million
Cash flows from operating activities:					
Profit before taxation		**2,548**	2,415	**790**	207
Adjustments for non-cash items and other adjustments included within income statement	34	**2,635**	3,241	**232**	615
Change in operating assets	34	**(12,837)**	(13,625)	**61**	459
Change in operating liabilities	34	**33,859**	5,819	**(462)**	575
Contributions to defined benefit schemes	30	**(143)**	(143)	**–**	–
UK and overseas taxes paid	10	**(770)**	(915)	**–**	(14)
Net cash from/(used in) operating activities		**25,292**	(3,208)	**621**	1,842
Cash flows from investing activities:					
Purchase of property, plant and equipment	18	**(171)**	(165)	**–**	–
Disposal of property, plant and equipment		**85**	29	**–**	–
Acquisition of investment in subsidiaries, associates, and joint ventures, net of cash acquired	32	**–**	(44)	**–**	(1,000)
Dividends received from subsidiaries, associates and joint ventures	32	**67**	2	**1,035**	392
Disposal of subsidiaries		**7**	–	**–**	–
Purchase of investment securities		**(276,388)**	(265,186)	**–**	–
Disposal and maturity of investment securities		**263,983**	261,316	**621**	2,850
Net cash (used in)/from investing activities		**(12,417)**	(4,048)	**1,656**	2,242
Cash flows from financing activities:					
Issue of ordinary and preference share capital, net of expenses	28	**14**	6	**14**	6
Exercise of share options		**9**	10	**9**	10
Purchase of own shares		**(8)**	–	**(8)**	–
Issue of Additional Tier 1 capital, net of expenses	28	**–**	992	**–**	992
Gross proceeds from issue of subordinated liabilities	34	**500**	–	**500**	–
Interest paid on subordinated liabilities	34	**(602)**	(743)	**(507)**	(353)
Repayment of subordinated liabilities	34	**(2,097)**	(2,984)	**(474)**	(1,249)
Proceeds from issue of senior debts	34	**9,766**	2,292	**4,552**	1,501
Repayment of senior debts	34	**(7,030)**	(4,162)	**(3,141)**	(3,237)
Interest paid on senior debts	34	**(507)**	(896)	**(355)**	(825)
Investment from non-controlling interests		**–**	21	**–**	–
Dividends paid to non-controlling interests and preference shareholders		**(533)**	(496)	**(436)**	(445)
Dividends paid to ordinary shareholders		**(539)**	–	**(539)**	–
Net cash used in financing activities		**(1,027)**	(5,960)	**(385)**	(3,600)
Net increase/(decrease) in cash and cash equivalents		**11,848**	(13,216)	**1,892**	484
Cash and cash equivalents at beginning of the year		**87,231**	96,977	**15,714**	15,230
Effect of exchange rate movements on cash and cash equivalents		**(1,579)**	3,470	**–**	–
Cash and cash equivalents at end of the year	35	**97,500**	87,231	**17,606**	15,714

Company balance sheet

As at 31 December 2018

	Notes	31.12.18 $million	31.12.17 $million
Non-current assets			
Investments in subsidiary undertakings	32	**34,853**	34,853
Current assets			
Derivative financial instruments	39	**9**	70
Investment securities	39	**11,537**	12,159
Amounts owed by subsidiary undertakings	39	**17,606**	15,714
Taxation		**12**	3
Total current assets		**29,164**	27,946
Current liabilities			
Derivative financial instruments	39	**1,128**	492
Other creditors		**403**	405
Total current liabilities		**1,531**	897
Net current assets		**27,633**	27,049
Total assets less current liabilities		**62,486**	61,902
Non-current liabilities			
Debt securities in issue	39	**17,202**	16,169
Subordinated liabilities and other borrowed funds	27, 39	**13,436**	13,882
Total non-current liabilities		**30,638**	30,051
Total assets less liabilities		**31,848**	31,851
Equity			
Share capital and share premium account	28	**7,111**	7,097
Other reserves		**17,129**	17,129
Retained earnings		**2,647**	2,664
Total shareholders' equity		**26,887**	26,890
Other equity instruments	28	**4,961**	4,961
Total equity		**31,848**	31,851

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 $799 million (31 December 2017: $210 million).

The Notes on pages 244 to 355 form an integral part of these financial statements.

These financial statements were approved by the Board of directors and authorised for issue on 26 February 2019 and signed on its behalf by:

José Viñals
Chairman

Bill Winters
Group Chief Executive

Andy Halford
Group Chief Financial Officer

Company statement of changes in equity

For the year ended 31 December 2018

	Share capital and share premium account $million	Capital and merger reserve[1] $million	Retained earnings $million	Other equity instruments $million	Total $million
At 1 January 2017	7,091	17,129	2,764	3,969	30,953
Profit for the year	–	–	210	–	210
Shares issued, net of expenses	6	–	–	–	6
Other equity instruments issued, net of expenses	–	–	–	992	992
Net own shares adjustment	–	–	10	–	10
Share option expense, net of taxation	–	–	125	–	125
Dividends[2]	–	–	(445)	–	(445)
At 31 December 2017	**7,097**	**17,129**	**2,664**	**4,961**	**31,851**
Profit after tax for the year	**–**	**–**	**799**	**–**	**799**
Shares issued, net of expenses	**14**	**–**	**–**	**–**	**14**
Net own shares adjustment	**–**	**–**	**1**	**–**	**1**
Share option expense, net of taxation	**–**	**–**	**158**	**–**	**158**
Dividends[2]	**–**	**–**	**(975)**	**–**	**(975)**
At 31 December 2018	**7,111**	**17,129**	**2,647**	**4,961**	**31,848**

1 Includes capital reserve of $5 million, capital redemption reserve of $13 million and merger reserve of $17,111 million

2 Comprises dividends paid net of scrip $539 million (31 December 2017: $nil) and dividends on preference shares classified as equity and Additional Tier 1 securities $436 million (31 December 2017: $445 million)

Note 28 includes a description of each reserve.

The Notes on pages 244 to 355 form an integral part of these financial statements.

Contents –
Notes to the financial statements

Notes to the financial statements

1. Accounting policies

Statement of compliance

The Group financial statements consolidate Standard Chartered PLC (the Company) and its subsidiaries (together referred to as the Group) and equity account the Group's interest 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 IFRS Interpretations Committee 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 140) to the end of other principal risks in the same section (page 192) excluding:

- Credit quality by geographic region, (page 151)
- Credit quality by industry, (page 153)
- Forborne and other modified loans by region (page 162)
- Credit-impaired (stage 3) loans by geographic region, (page 164)
- Industry and Retail products analysis by geographic region, (page 170)
- Asset-backed securities, (page 174)
- Country risk, (page 180)
- Risks not in VaR, (page 182)
- Backtesting, (page 182)
- Mapping of market risk items to the balance sheet, (page 183)
- Liquidity coverage ratio (LCR), (page 185)
- Stressed coverage, (page 185)
- Net stable funding ratio (NSFR), (page 186)
- Liquidity pool, (page 186)
- Encumbrance, (page 187)
- Interest rate risk in the banking book, (page 191)
- Operational risk, (page 192)
- Other principal risks, (page 192)

b) Capital review: from the start of 'Capital Requirements Directive (CRD) IV capital base' to the end of 'Impact of IFRS 9 on CET1', 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.

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)
- Valuation of financial instruments held at fair value (Note 13)
- Goodwill impairment (Note 17)
- Provisions for liabilities and charges (Note 24)
- Retirement benefit obligations (Note 30)
- Investments in associates and joint ventures (Note 32)

IFRS and Hong Kong accounting requirements

As required by the Hong Kong Listing Rules, an explanation of the differences in accounting practices between EU-endorsed IFRS and Hong Kong Financial Reporting Standards is required to be disclosed. There would be no significant differences had these accounts been prepared in accordance with Hong Kong Financial Reporting Standards.

Comparatives

Prior period comparatives are presented on an IAS 39 – Financial Instruments: Recognition and Measurement basis (Refer to the 31 December 2017 audited financial statements for the IAS 39 accounting policies). Certain comparatives have been changed to align with current year disclosures. The main changes are in respect of IFRS 9 (see below).

Amortised cost reverse repurchase agreements and other similar lending balances have been included with Loans and advances to customers and Loans and advances to banks as appropriate.

In addition, the comparatives for commitments disclosed in Note 25 Contingent liabilities and commitments have been restated, as a result of the availability of more reliable, centralised information following the implementation of IFRS 9. The ageing of commitments is now based on residual rather than original maturity. The Risk profile has similarly been updated. These changes have not resulted in any amendments to the reported income statement or balance sheet of the Group.

1. Accounting policies continued

New accounting standards adopted by the Group

IFRS 9 Financial Instruments

On 1 January 2018, the Group adopted IFRS 9 Financial Instruments, and the corresponding disclosure amendments to IFRS 7 – Financial Instruments: Disclosures. IFRS 9 has been endorsed by the EU, replaces IAS 39 and introduces; new requirements for the classification and measurement of financial instruments; the recognition and measurement of credit impairment provisions; and provides for a simplified approach to hedge accounting.

The Group has further chosen:

- To continue to apply IAS 39 hedging requirements rather than those of IFRS 9. Hedging disclosures have, however, been updated to comply with new disclosure requirements
- To early adopt the 'Prepayment Features with Negative Compensation (Amendments to IFRS 9)' which was effective 1 January 2019 with early adoption permitted
- Not to restate comparative periods on the basis that it is not possible to do so without the use of hindsight

The Risk profile has been updated in accordance with the collateral and credit enhancement requirements of IFRS 7 Financial instruments: Disclosures, as amended for IFRS 9. The extent of collateral as a mitigant has been determined with reference to both the drawn and undrawn components of an exposure. Further, the collateral balances align to the expected credit loss methodology as this addresses the effects of collateral and other credit enhancements on the amounts arising from expected credit losses.

The new IFRS 9 accounting policies are stated in the Risk review, Note 8 Credit impairment and Note 13 Financial instruments.

Information on the transition from IAS 39 to IFRS 9 is stated in Note 41.

The Group's initial estimate of credit impairment provisions on adoption of IFRS 9 was $6,720 million. Following refinement of the Group's expected loss models, the estimate of the opening credit impairment provisions has been revised down by $222 million to $6,498 million, and the net expected credit loss of $(1,296) million adjusted against retained earnings has similarly decreased by $222 million to $(1,074) million. The relevant IFRS 9 disclosures in the Risk review and in Note 41 Transition to IFRS 9 Financial Instruments have been re-presented accordingly.

IFRS 15 Revenue from Contracts with Customers

IFRS 15 is effective from 1 January 2018 and has been endorsed by the EU, and replaces IAS 18 Revenue. IFRS 15 is conceptually similar to IAS 18, but includes more granular guidance on how to recognise and measure revenue, and also introduces additional disclosure requirements. The Group performed an assessment of the new standard and concluded that the current treatment of revenue from contracts with customers is consistent with the new principles and there is no material transitional impact.

Going concern

These financial statements were approved by the Board of directors on 26 February 2019. 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.

New accounting standards in issue but not yet effective

IFRS 16 Leases

The effective date of IFRS 16 is 1 January 2019 and the standard was endorsed by the EU in November 2017. IFRS 16 introduces 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 significant judgements in the implementation were determining if a contact 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 impact of IFRS 16 on the Group is primarily where the Group is a lessee in property lease contracts. The Group has elected to adopt the simplified approach of transition and will not restate comparative information. On 1 January 2019 the Group will recognise 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 will be the amount of the lease liability adjusted by prepaid or accrued lease payments related to those leases. Any difference will be recognised in retained earnings at the date of initial application. The balance sheet increase as a result of recognition of the lease liability and right-of-use asset as of 1 January 2019 will be approximately $1.4 billion. However, the actual impact may change as judgements and estimates are refined.

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 is not expected to result in a material impact to the Group's financial report.

Other amendments and clarifications made to existing standards that are not yet effective are not expected to result in a material impact on the Group's financial report.

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 four geographic regions are Greater China & North Asia, 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

Basis of preparation

The analysis reflects how the client segments and geographic regions are managed internally. This is described as the Management View 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 Group has made a provision of $900 million for potential penalties related to previously disclosed matters, namely, the US investigation relating to historical violation of US sanctions laws and regulations, the decision notice from the FCA concerning the Group's historical financial crime controls and investigations relating to foreign exchange trading issues. Further details of these and other legal and regulatory matters can be found in Note 26 (on page 305).

The Group incurred net restructuring charges of $478 million in 2018 of which $375 million related to Principal Finance and included a $160 million loss in the fourth quarter in respect of the announced spin-out of the business and the sale of the majority of the Group's related investment portfolios to a third party. A further $155 million related to planned initiatives to reduce ongoing costs and $34 million related to the Group's ship leasing business that the Group has decided to discontinue. These gross charges were partly offset by recoveries in relation to the liquidation portfolio.

A net gain of $69 million arose following the redemption of some GBP-denominated securities.

A reconciliation between underlying and statutory results is set out in the table below:

31.12.18	Underlying $million	Provision for regulatory matters $million	Restructuring $million	Gains arising on repurchase of senior and subordinated liabilities $million	Net gain on businesses disposed/held for sale $million	Goodwill impairment $million	Statutory $million
Operating income	14,968	–	(248)	69	–	–	14,789
Operating expenses	(10,464)	(900)	(283)	–	–	–	(11,647)
Operating profit/(loss) before impairment losses and taxation	4,504	(900)	(531)	69	–	–	3,142
Credit impairment	(740)	–	87	–	–	–	(653)
Other impairment	(148)	–	(34)	–	–	–	(182)
Profit from associates and joint ventures	241	–	–	–	–	–	241
Profit/(loss) before taxation	3,857	(900)	(478)	69	–	–	2,548

31.12.17	Underlying $million	Provision for regulatory matters $million	Restructuring $million	Gains arising on repurchase of senior and subordinated liabilities $million	Net gain on businesses disposed/held for sale $million	Goodwill impairment $million	Statutory $million
Operating income	14,289	–	58	–	78	–	14,425
Operating expenses	(10,120)	–	(297)	–	–	–	(10,417)
Operating profit/(loss) before impairment losses and taxation	4,169	–	(239)	–	78	–	4,008
Credit impairment	(1,200)	–	(162)	–	–	–	(1,362)
Other impairment	(169)	–	(10)	–	–	(320)	(499)
Profit from associates and joint ventures	210	–	58	–	–	–	268
Profit/(loss) before taxation	3,010	–	(353)	–	78	(320)	2,415

2. Segmental information continued

Underlying performance by client segment

	31.12.18					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Operating income	6,860	5,041	1,391	516	1,160	14,968
Operating expenses	(4,396)	(3,736)	(923)	(530)	(879)	(10,464)
Operating profit/(loss) before impairment losses and taxation	2,464	1,305	468	(14)	281	4,504
Credit impairment	(242)	(267)	(244)	–	13	(740)
Other impairment	(150)	(5)	–	–	7	(148)
Profit from associates and joint ventures	–	–	–	–	241	241
Underlying profit/(loss) before taxation	2,072	1,033	224	(14)	542	3,857
Provision for regulatory matters	(50)	–	–	–	(850)	(900)
Restructuring	(350)	(68)	(12)	(24)	(24)	(478)
Gains arising on repurchase of senior and subordinated liabilities	3	–	–	–	66	69
Statutory profit/(loss) before taxation	1,675	965	212	(38)	(266)	2,548
Total assets	308,496	103,780	31,379	13,673	231,434	688,762
Of which: loans and advances to customers including FVTPL	146,575	101,635	27,271	13,616	10,274	299,371
loans and advances to customers	104,677	101,235	26,759	13,616	10,270	256,557
loans held at fair value through profit or loss	41,898	400	512	–	4	42,814
Total liabilities	369,316	140,328	37,260	19,733	71,773	638,410
Of which: customer accounts	243,019	136,691	34,860	19,622	2,989	437,181

	31.12.17					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Operating income	6,496	4,834	1,333	500	1,126	14,289
Operating expenses	(4,409)	(3,585)	(881)	(500)	(745)	(10,120)
Operating profit before impairment losses and taxation	2,087	1,249	452	–	381	4,169
Credit impairment	(658)	(375)	(167)	(1)	1	(1,200)
Other impairment	(168)	(1)	(3)	–	3	(169)
Profit from associates and joint ventures	–	–	–	–	210	210
Underlying profit/(loss) before taxation	1,261	873	282	(1)	595	3,010
Restructuring	(275)	(19)	(13)	(15)	(31)	(353)
Net gains on businesses disposed/held for sale	–	–	–	–	78	78
Goodwill impairment	–	–	–	–	(320)	(320)
Statutory profit/(loss) before taxation	986	854	269	(16)	322	2,415
Total assets	293,334	105,178	31,650	13,469	219,870	663,501
Of which: loans and advances to customers	131,738	103,013	28,108	13,351	9,343	285,553
Total liabilities	353,582	132,819	36,385	22,203	66,705	611,694
Of which: customer accounts	222,714	129,536	33,880	22,222	3,372	411,724

2. Segmental information continued

Underlying performance by region

	31.12.18					
	Greater China & North Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Operating income	6,157	3,971	2,604	1,670	566	14,968
Operating expenses	(3,812)	(2,711)	(1,810)	(1,453)	(678)	(10,464)
Operating profit/(loss) before impairment losses and taxation	2,345	1,260	794	217	(112)	4,504
Credit impairment	(71)	(322)	(262)	(83)	(2)	(740)
Other impairment	(110)	6	–	17	(61)	(148)
Profit from associates and joint ventures	205	26	–	3	7	241
Underlying profit/(loss) before taxation	2,369	970	532	154	(168)	3,857
Provision for regulatory matters	–	–	–	(50)	(850)	(900)
Restructuring	(106)	105	(100)	(8)	(369)	(478)
Gains arising on repurchase of senior and subordinated liabilities	–	–	–	3	66	69
Statutory profit/(loss) before taxation	2,263	1,075	432	99	(1,321)	2,548
Net interest margin	1.44%	2.06%	3.03%	0.47%		1.58%
Total assets	269,765	147,049	57,800	201,912	12,236	688,762
Of which: loans and advances to customers including FVTPL	130,669	81,905	29,870	56,927	–	299,371
Total liabilities	238,249	127,478	36,733	198,853	37,097	638,410
Of which: customer accounts	196,870	96,896	29,916	113,499	–	437,181

	31.12.17					
	Greater China & North Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Operating income	5,616	3,833	2,764	1,601	475	14,289
Operating expenses	(3,681)	(2,654)	(1,819)	(1,407)	(559)	(10,120)
Operating profit/(loss) before impairment losses and taxation	1,935	1,179	945	194	(84)	4,169
Credit impairment	(141)	(653)	(300)	(107)	1	(1,200)
Other impairment	(81)	(12)	(3)	(16)	(57)	(169)
Profit/(loss) from associates and joint ventures	229	(22)	–	–	3	210
Underlying profit/(loss) before taxation	1,942	492	642	71	(137)	3,010
Restructuring	35	(161)	(33)	(25)	(169)	(353)
Net gains on businesses disposed/ held for sale	–	19	–	–	59	78
Goodwill impairment	–	–	–	–	(320)	(320)
Statutory profit/(loss) before taxation	1,977	350	609	46	(567)	2,415
Net interest margin	1.36%	1.92%	3.34%	0.51%		1.55%
Total assets	257,692	148,467	59,166	185,345	12,831	663,501
Of which: loans and advances to customers	126,739	82,579	29,602	46,633	–	285,553
Total liabilities	228,093	128,165	39,413	177,525	38,498	611,694
Of which: customer accounts	186,517	95,310	31,797	98,100	–	411,724

2. Segmental information continued

Additional segmental information (statutory)

	31.12.18					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Net interest income	3,470	3,164	863	297	999	8,793
Net fees and commission income	1,496	1,579	284	192	(59)	3,492
Other income	1,640	298	243	29	294	2,504
Operating income	6,606	5,041	1,390	518	1,234	14,789

	31.12.17					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Net interest income	3,225	3,006	802	286	862	8,181
Net fees and commission income	1,471	1,626	285	182	(52)	3,512
Other income	1,827	271	242	32	360	2,732
Operating income	6,523	4,903	1,329	500	1,170	14,425

	31.12.18					
	Greater China & North Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Net interest income	3,351	2,561	1,493	692	696	8,793
Other income	2,799	1,431	1,112	987	(333)	5,996
Operating income	6,150	3,992	2,605	1,679	363	14,789

	31.12.17					
	Greater China & North Asia $million	ASEAN & South Asia $million	Africa & Middle East $million	Europe & Americas $million	Central & other items $million	Total $million
Net interest income	2,950	2,402	1,619	692	518	8,181
Other income	2,663	1,468	1,145	904	64	6,244
Operating income	5,613	3,870	2,764	1,596	582	14,425

	31.12.18							
	Hong Kong $million	Korea $million	China $million	Singapore $million	India $million	UAE $million	UK $million	US $million
Net interest income	1,854	672	648	1,049	646	365	294	243
Other income	1,893	337	171	499	290	272	534	424
Operating income	3,747	1,009	819	1,548	936	637	828	667

	31.12.17							
	Hong Kong $million	Korea $million	China $million	Singapore $million	India $million	UAE $million	UK $million	US $million
Net interest income	1,564	625	540	965	577	394	428	158
Other income	1,823	340	163	470	406	339	314	517
Operating income	3,387	965	703	1,435	983	733	742	675

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.

Interest income and expense on financial instruments held at fair value through profit or loss is recognised within net interest income using the effective interest method, with the exception of fair value elected structured notes and structured deposits for which all gains and losses are recognised within trading income.

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.

	31.12.18 $million	31.12.17 $million
Balances at central banks	**364**	287
Loans and advances to banks	**2,293**	1,955
Loans and advances to customers	**10,527**	8,845
Listed debt securities	**1,913**	928
Unlisted debt securities	**1,227**	1,501
Other eligible bills	**849**	836
Accrued on impaired assets (discount unwind)	**91**	83
Interest income	**17,264**	14,435
Deposits by banks	**811**	891
Customer accounts	**5,764**	3,859
Debt securities in issue	**1,129**	756
Subordinated liabilities and other borrowed funds	**767**	748
Interest expense	**8,471**	6,254
Net interest income	**8,793**	8,181
Of which from financial instruments held at:		
Amortised cost	**12,255**	10,861
Fair value through other comprehensive income/ available-for-sale investments	**2,845**	2,657
Fair value through profit or loss	**2,164**	847
Held-to-maturity	**–**	70
Interest income	**17,264**	14,435
Of which from financial instruments held at:		
Amortised cost	**7,384**	6,128
Fair value through profit or loss	**1,087**	126
Interest expense	**8,471**	6,254
Net interest income	**8,793**	8,181

4. Net fees and commission

Accounting policy

Fees and commissions charged for services provided or received by the Group are recognised on an accrual basis when the service has been provided 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

Commissions for bancassurance activities are recorded as they are earned. These commissions are received within a short time frame of the commission being earned.

Target-linked fees are accrued over the period in which the target is met, 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.

	31.12.18 $million	31.12.17 $million
Fees and commissions income	**4,029**	3,942
Fees and commissions expense	**(537)**	(430)
Net fees and commission	**3,492**	3,512

Total fee income arising from financial instruments that are not fair valued through profit or loss is $1,478 million (31 December 2017: $1,067 million) and arising from trust and other fiduciary activities is $144 million (31 December 2017: $130 million).

Total fee expense arising from financial instruments that are not fair valued through profit or loss is $143 million (31 December 2017: $74 million) and arising from trust and other fiduciary activities is $27 million (31 December 2017: $22 million).

4. Net fees and commission continued

	31.12.18					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Transaction Banking	**1,066**	**12**	**223**	**–**	**–**	**1,301**
Trade	**448**	**12**	**163**	**–**	**–**	**623**
Cash Management and Custody	**618**	**–**	**60**	**–**	**–**	**678**
Financial Markets	**206**	**–**	**25**	**–**	**–**	**231**
Corporate Finance	**181**	**–**	**21**	**–**	**–**	**202**
Lending and Portfolio Management	**57**	**–**	**13**	**–**	**–**	**70**
Principal Finance	**(14)**	**–**	**–**	**–**	**–**	**(14)**
Wealth Management	**–**	**1,167**	**2**	**190**	**–**	**1,359**
Retail Products	**–**	**403**	**–**	**2**	**–**	**405**
Treasury	**–**	**–**	**–**	**–**	**(22)**	**(22)**
Others	**–**	**(3)**	**–**	**–**	**(37)**	**(40)**
Net fees and commission	**1,496**	**1,579**	**284**	**192**	**(59)**	**3,492**

	31.12.17					
	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Central & other items $million	Total $million
Transaction Banking	1,044	12	221	–	–	1,277
Trade	450	12	160	–	–	622
Cash Management and Custody	594	–	61	–	–	655
Financial Markets	167	–	26	–	–	193
Corporate Finance	207	–	19	–	–	226
Lending and Portfolio Management	36	–	15	–	–	51
Principal Finance	17	–	–	–	–	17
Wealth Management	–	1,171	4	180	–	1,355
Retail Products	–	441	–	2	–	443
Treasury	–	–	–	–	(20)	(20)
Others	–	2	–	–	(32)	(30)
Net fees and commission	1,471	1,626	285	182	(52)	3,512

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 $886 million (31 December 2017: $970 million). The income will be earned evenly over the next 10.5 years (31 December 2017: 11.5 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 included in the income statement in the period in which they arise.

Income is recognised from the sale and purchase of trading positions, margins on market making and customer business and fair value changes.

	31.12.18 $million	31.12.17 $million
Net trading income	**1,683**	1,527
Significant items within net trading income include:		
Gains on instruments held for trading	**1,756**	1,716
Losses on financial assets mandatorily at fair value through profit or loss	**(104)**	–
Gains on financial assets designated at fair value through profit or loss	**11**	167
Gains/(losses) on financial liabilities designated at fair value through profit or loss	**30**	(202)

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 financial 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.

	31.12.18 $million	31.12.17 $million
Other operating income includes:		
Rental income from operating lease assets	573	670
Gains less losses on disposal of fair value through other comprehensive income/available-for-sale investments	(31)	235
Net gain on sale of businesses	9	28
Net gain on derecognition of investment in associate	–	64
Dividend income	25	46
Gains arising on repurchase of senior and subordinated liabilities[1]	69	–
Other	176	162
	821	1,205

1 On 14 June 2018, Standard Chartered PLC repurchased in part, £245.7 million of its £750 million 4.375 per cent senior debt 2038 and £372.5 million of its £900 million 5.125 per cent subordinated debt 2034. On the same date, Standard Chartered Bank repurchased in part, £95.1 million of its £200 million 7.75 per cent subordinated notes (callable 2022). This activity resulted in an overall gain of £69 million for the Group. Please refer to Note 27

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 the Directors' remuneration report (pages 91 to 125).

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 30.

Share-based compensation: the Group operates equity-settled and cash-settled share-based payment compensation plans. The fair value of the employee services received in exchange for the grant of the options is recognised as an expense. Further details are provided in Note 31.

	31.12.18 $million	31.12.17 $million
Staff costs:		
Wages and salaries	5,439	5,047
Social security costs	171	159
Other pension costs (Note 30)	365	357
Share-based payment costs	166	152
Other staff costs	933	1,043
	7,074	6,758

Other staff costs include redundancy expenses of $153 million (31 December 2017: $85 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:

	31.12.18			31.12.17		
	Business	Support services	Total	Business	Support services	Total
At 31 December	38,621	46,781	85,402	40,636	45,385	86,021
Average for the year	39,929	46,339	86,268	41,806	44,988	86,794

The Company employed nil staff at 31 December 2018 (31 December 2017: nil) and it incurred costs of $5 million (31 December 2017: $5 million).

Details of directors' pay and benefits and interests in shares are disclosed in the Directors' remuneration report (pages 91 to 125).

Transactions with directors, officers and other related parties are disclosed in Note 36.

7. Operating expenses continued

	31.12.18 $million	31.12.17 $million
Premises and equipment expenses:		
Rental of premises	**374**	379
Other premises and equipment costs	**395**	427
Rental of computers and equipment	**21**	17
	790	823
General administrative expenses:		
UK bank levy	**324**	220
Provision for regulatory matters	**900**	–
Other general administrative expenses	**1,702**	1,787
	2,926	2,007
Depreciation and amortisation:		
Property, plant and equipment:		
Premises	**86**	85
Equipment	**94**	85
Operating lease assets	**304**	328
	484	498
Intangibles:		
Software	**363**	320
Acquired on business combinations	**10**	11
	857	829
Total operating expenses	**11,647**	10,417

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 2018 is 0.16 per cent for chargeable short-term liabilities, with a lower rate of 0.08 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 be gradually reduced over the next two years, 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 174).

Estimates of forecasts of key macroeconomic variables underlying the expected credit loss calculation can be found with in the Risk review, Key assumptions and judgements in determining expected credit loss (page 175).

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.

8. Credit impairment continued

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.

8. Credit impairment continued

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 probability of default (PD) since origination. A forward-looking PD is one that is adjusted for future economic conditions to the extent 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 160 to 162);
- 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 cash flows expected to be recovered, discounted at the instrument's original effective interest rate, and the gross carrying value 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.

8. Credit impairment continued

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 as non-performing loans, i.e. stage 3 or credit-impaired exposures.

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 geo political 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 difference between the loan carrying amount and the discounted expected future cash flows will result in the stage 3 credit impairment amount. 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 than 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 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 to 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.

8. Credit impairment continued

Write-offs of credit-impaired instruments and reversal of impairment

To the extent 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 to 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

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.

	31.12.18 $million	31.12.17 $million
Net credit impairment against profit on loans and advances to banks and customers	**607**	1,365
Net credit impairment against profit or loss during the period relating to debt securities	**7**	20
Net credit impairment relating to financial guarantees and loan commitments	**39**	(23)
Credit impairment[1]	**653**	1,362

1 No material POCI assets

9. Other impairment

Accounting policy

Refer to the below referenced notes for the relevant accounting policy

	31.12.18 $million	31.12.17 $million
Impairment of goodwill (Note 17)	**–**	320
Impairment of fixed assets (Note 18)	**150**	137
Impairment losses on available-for-sale equity shares[1]	**–**	16
Impairment of other intangible assets (Note 17)	**46**	23
Other impairment – Other	**(14)**	3
Other impairment	**182**	179
	182	499

1 31 December 2017 equity shares impairment disclosed on an IAS 39 basis. 31 December 2018 equity shares disclosed on an IFRS 9 basis. Under IFRS 9, equity shares are either measured at FVTPL or FVOCI with fair value movements recognised accordingly

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:

	31.12.18 $million	31.12.17 $million
The charge for taxation based upon the profit for the year comprises:		
Current tax:		
United Kingdom corporation tax at 19 per cent (2017: 19.25 per cent):		
Current tax charge on income for the year	**1**	–
Adjustments in respect of prior years (including double tax relief)	**49**	1
Foreign tax:		
Current tax charge on income for the year	**1,109**	977
Adjustments in respect of prior years	**(105)**	(13)
	1,054	965
Deferred tax:		
Origination/reversal of temporary differences	**254**	156
Adjustments in respect of prior years	**131**	26
	385	182
Tax on profits on ordinary activities	**1,439**	1,147
Effective tax rate	**56.5%**	47.5%
Tax on profits on ordinary activities excluding the impact of US Tax Reform	**1,439**	927
Effective tax rate excluding the impact of US Tax Reform	**56.5%**	38.4%

The US Tax Cuts and Jobs Act of 2017, effective 1 January 2018, reduced the US corporate tax rate from 35 per cent to 21 per cent and introduced a Base Erosion and Anti Abuse Tax. The combined impact of these changes in the tax rates reduced the 2017 US deferred tax asset, increasing the 2017 deferred tax charge by $220 million.

The tax charge for the year of $1,439 million (31 December 2017: $1,147 million) on a profit before tax of $2,548 million (31 December 2017: $2,415 million) reflects 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.

Foreign tax includes current tax of $169 million (31 December 2017: $167 million) on the profits assessable in Hong Kong.

Deferred tax includes origination or reversal of temporary differences of $17 million (31 December 2017: $5 million) provided at a rate of 16.5 per cent (31 December 2017: 16.5 per cent) on the profits assessable in Hong Kong.

10. Taxation continued

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:

	31.12.18 $million	31.12.17 $million
Profit on ordinary activities before tax	2,548	2,415
Tax at 19 per cent (2017: 19.25 per cent)	484	465
Lower tax rates on overseas earnings	(66)	(17)
Higher tax rates on overseas earnings	354	284
Non-creditable withholding taxes	158	67
Tax free income	(113)	(130)
Share of associates and joint ventures	(39)	(45)
Non-deductible expenses	322	217
Provision for regulatory matters	164	–
Bank levy	62	42
Non-taxable losses on investments	79	9
Payments on financial instruments in reserves	(68)	–
Non-taxable gains on disposals of businesses	–	(12)
Goodwill impairment	–	63
US Tax Reform	–	220
Deferred tax not recognised	2	39
Adjustments to tax charge in respect of prior years	75	14
Other items	25	(69)
Tax on profit on ordinary activities	1,439	1,147

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.

	31.12.18			31.12.17		
	Current tax $million	Deferred tax $million	Total $million	Current tax $million	Deferred tax $million	Total $million
Tax recognised in other comprehensive income						
Fair value through other comprehensive income/available-for-sale assets	–	21	21	1	7	8
Cash flow hedges	–	(6)	(6)	–	(6)	(6)
Own credit adjustment	9	(45)	(36)	–	14	14
Retirement benefit obligations	–	6	6	–	(35)	(35)
Total tax credit/(charge) recognised in equity	9	(24)	(15)	1	(20)	(19)

10. Taxation continued

Current tax: The following are the movements in current tax during the year:

Current tax comprises:	**31.12.18 $million**	31.12.17 $million
Current tax assets	**491**	474
Current tax liabilities	**(376)**	(327)
Net current tax opening balance before transition	**115**	147
IFRS 9 transition	**11**	–
Net current tax opening balance after transition	**126**	147
Movements in income statement	**(1,054)**	(965)
Movements in other comprehensive income	**9**	1
Taxes paid	**770**	915
Other movements	**(35)**	17
Net current tax balance as at 31 December	**(184)**	115
Current tax assets	**492**	491
Current tax liabilities	**(676)**	(376)
Total	**(184)**	115

Deferred tax: The following are the major deferred tax liabilities and assets recognised by the Group and movements thereon during the year:

	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	**(413)**	**4**	**(85)**	**–**	**(494)**
Impairment provisions on loans and advances	**1,206**	**(99)**	**(146)**	**–**	**961**
Tax losses carried forward	**290**	**(4)**	**(20)**	**–**	**266**
Fair value through other comprehensive income assets	**(21)**	**4**	**(1)**	**21**	**3**
Cash flow hedges	**(2)**	**1**	**–**	**(6)**	**(7)**
Own credit adjustment	**11**	**1**	**–**	**(45)**	**(33)**
Retirement benefit obligations	**38**	**(2)**	**(2)**	**6**	**40**
Share-based payments	**16**	**–**	**(1)**	**–**	**15**
Other temporary differences	**(190)**	**53**	**(130)**	**–**	**(267)**
Net deferred tax assets	**935**	**(42)**	**(385)**	**(24)**	**484**

	At 1 January 2017 $million	Exchange & other adjustments $million	(Charge)/credit to profit $million	(Charge)/credit to equity $million	At 31 December 2017 $million	IFRS 9 transition $million	At 1 January 2018 $million
Deferred tax comprises:							
Accelerated tax depreciation	(399)	(12)	(2)	–	(413)	–	(413)
Impairment provisions on loans and advances	934	36	101	–	1,071	135	1,206
Tax losses carried forward	396	8	(114)	–	290	–	290
Fair value through other comprehensive income/ available-for-sale assets	(27)	(2)	–	7	(22)	1	(21)
Cash flow hedges	5	(1)	–	(6)	(2)	–	(2)
Own credit adjustment	–	(3)	–	14	11	–	11
Retirement benefit obligations	76	3	(6)	(35)	38	–	38
Share-based payments	16	–	–	–	16	–	16
Other temporary differences	(60)	5	(161)	–	(216)	26	(190)
Net deferred tax assets	941	34	(182)	(20)	773	162	935

10. Taxation continued

Deferred tax comprises assets and liabilities as follows:

	31.12.18			01.01.18			31.12.17		
	Total $million	**Asset $million**	**Liability $million**	Total $million	Asset $million	Liability $million	Total $million	Asset $million	Liability $million
Deferred tax comprises:									
Accelerated tax depreciation	**(494)**	**7**	**(501)**	(413)	17	(430)	(413)	17	(430)
Impairment provisions on loans and advances	**961**	**938**	**23**	1,206	1,148	58	1,071	1,037	34
Tax losses carried forward	**266**	**126**	**140**	290	134	156	290	134	156
Fair value through other comprehensive income/ available-for-sale assets	**3**	**(2)**	**5**	(21)	(7)	(14)	(22)	(8)	(14)
Cash flow hedges	**(7)**	**(12)**	**5**	(2)	(7)	5	(2)	(7)	5
Own credit adjustment	**(33)**	**(18)**	**(15)**	11	(2)	13	11	(2)	13
Retirement benefit obligations	**40**	**40**	**–**	38	38	–	38	38	–
Share-based payments	**15**	**15**	**–**	16	16	–	16	16	–
Other temporary differences	**(267)**	**(47)**	**(220)**	(190)	(29)	(161)	(216)	(48)	(168)
	484	**1,047**	**(563)**	935	1,308	(373)	773	1,177	(404)

At 31 December 2018, the Group has net deferred tax assets of $484 million (31 December 2017: $773 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, $266 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.

- $139 million of the deferred tax assets relating to losses has arisen in Ireland, where there is no expiry date for unused tax losses. These losses relate to aircraft leasing and are expected to be fully utilised over the useful economical life of the assets being up to 18 years
- $33 million of the deferred tax assets relating to losses has arisen in Korea. These losses have no expiry date, and there is a defined profit stream against which they are forecast to be utilised
- $27 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
- $25 million of the deferred tax assets relating to losses has arisen in Taiwan. Management forecasts show that the losses are expected to be fully utilised over a period of one year. The tax losses expire after 10 years

The remaining deferred tax assets of $42 million relating to losses has arisen in other jurisdictions and is expected to be recovered in less than 10 years.

	31.12.18 $million	31.12.17 $million
No account has been taken of the following potential deferred tax assets/(liabilities):		
Withholding tax on unremitted earnings from overseas subsidiaries	**(281)**	(343)
Foreign exchange movements on investments in branches[1]	**–**	–
Tax losses	**1,283**	1,311
Held over gains on incorporation of overseas branches	**(413)**	(399)
Other temporary differences	**79**	47

1 No potential deferred tax is included for foreign exchange movements on investments in branches as any branch disposals would be covered by the Branch Profits Exemptions and would not give rise to a tax liability or asset. The amount as at 31 December 2017, previously disclosed as $339 million, has been restated to nil

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 Board considers a number of factors prior to dividend declaration which includes 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.

Ordinary equity shares

	31.12.18		31.12.17	
	Cents per share	$million	Cents per share	$million
2017/2016 final dividend declared and paid during the year[1]	11.00	363	–	–
2018/2017 interim dividend declared and paid during the year[1]	6.00	198	–	–

1 The amounts are gross of scrip adjustments

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. The 2017 final dividend of 11 cents per ordinary share ($363 million) was paid to eligible shareholders on 17 May 2018 and the 2018 interim dividend of six cents per ordinary share ($198 million) was paid to eligible shareholders on 22 October 2018.

2018 recommended final ordinary equity share dividend

The 2018 ordinary equity share dividend recommended by the Board is 15 cents per share. The financial statements for the year ended 31 December 2018 do not reflect this dividend as this will be accounted for in shareholders' equity as an appropriation of retained profits in the year ending 31 December 2019.

The dividend will be paid in either pounds sterling, Hong Kong dollars or US dollars on 16 May 2019 to shareholders on the UK register of members at the close of business in the UK on 8 March 2019. The dividend will be paid in Indian rupees on 16 May 2019 to Indian Depository Receipt holders on the Indian register at the close of business in India on 8 March 2019.

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.

		31.12.18 $million	31.12.17 $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	26	39
		79	92
Additional Tier 1 securities: $5 billion fixed rate resetting perpetual subordinated contingent convertible securities		357	353
		436	445
Dividends on these preference shares are treated as interest expense and accrued accordingly			
Non-cumulative irredeemable preference shares:	7 3/8 per cent preference shares of £1 each	9	10
	8 1/4 per cent preference shares of £1 each	10	11
		19	21

12. Earnings per ordinary share

Accounting policy

The Group measures earnings per share on an underlying basis. This differs from earnings defined in IAS 33 Earnings per share. Underlying earnings is profit/(loss) attributable to ordinary shareholders adjusted for 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.

The table below provides the basis of underlying earnings.

	31.12.18 $million	31.12.17 $million
Profit for the period attributable to equity holders	1,109	1,268
Non-controlling interest	(55)	(49)
Dividend payable on preference shares and AT1 classified as equity	(436)	(445)
Profit for the period attributable to ordinary shareholders	618	774
Items normalised:		
Provision for regulatory matters	900	–
Restructuring	478	353
Gains arising on repurchase of subordinated liabilities	(69)	–
Goodwill impairment (Note 9)	–	320
Net gain on businesses disposed and available-for-sale financial instruments (included within Note 6)	–	(78)
Impact of US Tax Reform (Note 10)	–	220
Tax on normalised items[1]	104	(36)
Underlying profit	2,031	1,553
Basic – Weighted average number of shares (millions)	3,306	3,293
Diluted – Weighted average number of shares (millions)	3,340	3,325
Basic earnings per ordinary share (cents)	18.7	23.5
Diluted earnings per ordinary share (cents)	18.5	23.3
Underlying basic earnings per ordinary share (cents)	61.4	47.2
Underlying diluted earnings per ordinary share (cents)	60.8	46.7

1 No tax is included in respect of the impairment of goodwill as no tax relief is available

13. 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; and fair value through profit or loss. 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 fair value through other comprehensive income (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); and
- 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 or at FVOCI depend 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	→ Derivatives → 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

13. Financial instruments continued

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 fair value through other comprehensive income 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; and
- 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; and
- 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.

13. Financial instruments continued

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 Note 8 (page 255) 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 fair value through other comprehensive income, 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 (including any related foreign exchange gains or losses) recognised in other comprehensive income and accumulated in a separate component of equity. Foreign exchange gains and losses on the amortised cost are recognised in income. Changes in expected credit losses are recognised in the profit or loss and are 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 recorded in the net trading income line in the profit or loss unless the instrument is part of a cash flow hedging relationship. Contractual interest income on financial assets held at fair value through profit or loss is recognised as interest income in a separate line in the profit or loss.

13. Financial instruments continued

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.

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 fair value through other comprehensive income 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 fair value through profit or loss, 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 fair value through other comprehensive income, 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.

13. Financial instruments continued

Reclassified from fair value through other comprehensive income

Where financial assets held at fair value through other comprehensive income 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 fair value through other comprehensive income 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 fair value through profit or loss 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.

The Group's classification of its financial assets and liabilities is summarised in the following tables.

IFRS 9

		Assets at fair value							
Assets	Notes	**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	16	–	–	54,769	–	–	54,769	–	54,769
Debt securities and other eligible bills		21,246	–	393	337	–	21,976	–	21,976
Equity shares		1,347	–	233	111	–	1,691	–	1,691
		23,813	–	62,871	448	–	87,132	–	87,132
Derivative financial instruments	14	45,108	513	–	–	–	45,621	–	45,621
Loans and advances to banks[1]	15	–	–	–	–	–	–	61,414	61,414
of which: reverse repurchase agreements and other similar secured lending	16	–	–	–	–	–	–	3,815	3,815
Loans and advances to customers[1]	15	–	–	–	–	–	–	256,557	256,557
of which: reverse repurchase agreements and other similar secured lending	16	–	–	–	–	–	–	3,151	3,151
Investment securities									
Debt securities 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	20	–	–	–	–	–	–	32,678	32,678
Assets held for sale	21	78	–	358	451	–	887	135	1,022
Total at 31 December 2018		68,999	513	63,229	899	116,598	250,238	417,598	667,836

1 Further analysed in Risk review and Capital review (pages 140 to 223)

13. Financial instruments continued

IFRS 9

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		–	–	–	–	–	–	58,864	58,864
Financial assets held at fair value through profit or loss									
Loans and advances to banks[1]		320	–	2,545	–	–	2,865	–	2,865
Loans and advances to customers[1]		1,689	–	2,179	39	–	3,907	–	3,907
Reverse repurchase agreements and other similar secured lending	16	–	–	45,518	–	–	45,518	–	45,518
Debt securities and other eligible bills		19,318	–	504	393	–	20,215	–	20,215
Equity shares		718	–	684	733	–	2,135	–	2,135
		22,045	–	51,430	1,165	–	74,640	–	74,640
Derivative financial instruments		46,333	698	–	–	–	47,031	–	47,031
Loans and advances to banks[1]		–	–	–	–	–	–	62,295	62,295
of which: reverse repurchase agreements and other similar secured lending	16	–	–	–	–	–	–	5,101	5,101
Loans and advances to customers[1]		–	–	–	–	–	–	251,507	251,507
of which: reverse repurchase agreements and other similar secured lending	16	–	–	–	–	–	–	4,566	4,566
Investment securities									
Debt securities and other eligible bills		–	–	–	–	108,411	108,411	7,188	115,599
Equity shares		–	–	–	–	214	214	–	214
		–	–	–	–	108,625	108,625	7,188	115,813
Other assets		–	–	–	–	–	–	29,922	29,922
Assets held for sale		–	–	–	466	–	466	62	528
Total at 1 January 2018		68,378	698	51,430	1,631	108,625	230,762	409,838	640,600

1 Further analysed in Risk review and Capital review (pages 140 to 223)

The table above is the representation as at 1 January 2018 of the balances after the implementation of IFRS 9.

13. Financial instruments continued

IAS 39

Assets	Notes	Assets at fair value: Trading $million	Assets at fair value: Derivatives held for hedging $million	Assets at fair value: Designated at fair value through profit or loss $million	Assets at fair value: Available-for-sale $million	Assets at fair value: Total financial assets at fair value $million	Assets at amortised cost: Loans and receivables $million	Assets at amortised cost: Held-to-maturity $million	Total $million
Cash and balances at central banks		–	–	–	–	–	58,864	–	58,864
Financial assets held at fair value through profit or loss									
Loans and advances to banks[1]		320	–	2,252	–	2,572	–	–	2,572
Loans and advances to customers[1]		1,689	–	1,229	–	2,918	–	–	2,918
Reverse repurchase agreements and other similar secured lending	16	454	–	458	–	912	–	–	912
Debt securities and other eligible bills		19,318	–	393	–	19,711	–	–	19,711
Equity shares		718	–	733	–	1,451	–	–	1,451
		22,499	–	5,065	–	27,564	–	–	27,564
Derivative financial instruments	14	46,333	698	–	–	47,031	–	–	47,031
Loans and advances to banks[1]	15	–	–	–	–	–	78,188	–	78,188
of which: reverse repurchase agreements and other similar secured lending	16	–	–	–	–	–	20,694	–	20,694
Loans and advances to customers[1]	15	–	–	–	–	–	282,288	–	282,288
of which: reverse repurchase agreements and other similar secured lending	16	–	–	–	–	–	33,581	–	33,581
Investment securities									
Debt securities and other eligible bills		–	–	–	109,161	109,161	2,630	4,340	116,131
Equity shares		–	–	–	894	894	–	–	894
		–	–	–	110,055	110,055	2,630	4,340	117,025
Other assets	20	–	–	–	–	–	29,922	–	29,922
Assets held for sale	21	–	–	466	–	466	62	–	528
Total at 31 December 2017		68,832	698	5,531	110,055	185,116	451,954	4,340	641,410

1 Further analysed in Risk review and Capital review (pages 140 to 223)

13. Financial instruments continued

IFRS 9

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	16	–	–	43,000	43,000	–	43,000
Debt securities in issue	22	–	–	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	14	45,580	1,629	–	47,209	–	47,209
Deposits by banks		–	–	–	–	29,715	29,715
Customer accounts		–	–	–	–	391,013	391,013
Repurchase agreements and other similar secured borrowing	16	–	–	–	–	1,401	1,401
Debt securities in issue	22	–	–	–	–	46,454	46,454
Other liabilities	23	–	–	–	–	37,945	37,945
Subordinated liabilities and other borrowed funds	27	–	–	–	–	15,001	15,001
Liabilities included in disposal groups held for sale	21	198	–	–	198	–	198
Total at 31 December 2018		49,004	1,629	57,474	108,107	521,529	629,636

IFRS 9

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		–	–	737	737	–	737
Customer accounts		–	–	5,236	5,236	–	5,236
Repurchase agreements and other similar secured borrowing	16	–	–	38,140	38,140	–	38,140
Debt securities in issue		–	–	7,023	7,023	–	7,023
Short positions		3,637	–	–	3,637	–	3,637
		3,637	–	51,136	54,773	–	54,773
Derivative financial instruments		46,558	1,543	–	48,101	–	48,101
Deposits by banks		–	–	–	–	30,945	30,945
Customer accounts		–	–	–	–	370,509	370,509
Repurchase agreements and other similar secured borrowing	16	–	–	–	–	1,639	1,639
Debt securities in issue		–	–	–	–	46,379	46,379
Other liabilities		–	–	–	–	34,982	34,982
Subordinated liabilities and other borrowed funds		–	–	–	–	17,176	17,176
Total at 1 January 2018		50,195	1,543	51,136	102,874	501,630	604,504

The table above is the representation as at 1 January 2018 of the balances after the implementation of IFRS 9.

13. Financial instruments continued

IAS 39

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		–	–	737	737	–	737
Customer accounts		–	–	5,236	5,236	–	5,236
Debt securities in issue	22	–	–	7,023	7,023	–	7,023
Short positions		3,637	–	–	3,637	–	3,637
		3,637	–	12,996	16,633	–	16,633
Derivative financial instruments	14	46,558	1,543	–	48,101	–	48,101
Deposits by banks		–	–	–	–	30,945	30,945
Customer accounts		–	–	–	–	370,509	370,509
Repurchase agreements and other similar secured borrowing	16	–	–	–	–	39,783	39,783
Debt securities in issue	22	–	–	–	–	46,379	46,379
Other liabilities	23	–	–	–	–	34,982	34,982
Subordinated liabilities and other borrowed funds	27	–	–	–	–	17,176	17,176
Total at 31 December 2017		50,195	1,543	12,996	64,734	539,774	604,508

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.

	31.12.18 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	Related amount not offset in the balance sheet Financial instruments $million	Financial collateral $million	Net amount $million
Assets						
Derivative financial instruments	**55,274**	**(9,653)**	**45,621**	**(32,283)**	**(9,259)**	**4,079**
Reverse repurchase agreements and other similar secured lending	**65,191**	**(3,456)**	**61,735**	**–**	**(61,735)**	**–**
At 31 December 2018	**120,465**	**(13,109)**	**107,356**	**(32,283)**	**(70,994)**	**4,079**
Liabilities						
Derivative financial instruments	**56,862**	**(9,653)**	**47,209**	**(32,283)**	**(10,323)**	**4,603**
Repurchase agreements and other similar secured borrowing	**47,857**	**(3,456)**	**44,401**	**–**	**(44,401)**	**–**
At 31 December 2018	**104,719**	**(13,109)**	**91,610**	**(32,283)**	**(54,724)**	**4,603**

13. Financial instruments continued

31.12.17	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	Related amount not offset in the balance sheet: Financial instruments $million	Related amount not offset in the balance sheet: Financial collateral $million	Net amount $million
Assets						
Derivative financial instruments	54,619	(7,588)	47,031	(29,135)	(9,825)	8,071
Reverse repurchase agreements and other similar secured lending	61,520	(6,333)	55,187	–	(55,187)	–
At 31 December 2017	116,139	(13,921)	102,218	(29,135)	(65,012)	8,071
Liabilities						
Derivative financial instruments	55,689	(7,588)	48,101	(29,135)	(9,513)	9,453
Repurchase agreements and other similar secured borrowing	46,116	(6,333)	39,783	–	(39,783)	–
At 31 December 2017	101,805	(13,921)	87,884	(29,135)	(49,296)	9,453

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 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

Loans and advances designated at fair value through profit or loss

The maximum exposure to credit risk for loans and advances to banks and customers and reverse repurchase and other similar secured lending designated at fair value through profit or loss was $nil million (1 January 2018: $39 million and 31 December 2017: $3,939 million). The net fair value gain on loans and advances to banks and customers and reverse repurchase and other similar secured lending designated at fair value through profit or loss was $nil million (1 January 2018: $nil million and 31 December 2017: $23 million). Of this, $nil million (1 January 2018: $nil million and 31 December 2017: $1 million) relates to changes in credit risk. The cumulative fair value loss attributable to changes in credit risk was $nil million (1 January 2018: $nil million and 31 December 2017: $1 million). Further details of the Group's valuation technique is described in this Note (page 275).

Financial liabilities designated at fair value through profit or loss

	31.12.18 (IFRS 9) $million	01.01.18 (IFRS 9) $million	31.12.17 (IAS 39) $million
Carrying balance aggregate fair value	**57,474**	51,136	12,996
Amount contractually obliged to repay at maturity	**57,974**	51,192	13,052
Difference between aggregate fair value and contractually obliged to repay at maturity	**(500)**	(56)	(56)
Cumulative change in fair value accredited to credit risk difference	**476**	82	82

The net fair value gain on financial liabilities designated at fair value through profit or loss was $30 million for the year (31 December 2017: net loss of $202 million). Further details of the Group's own credit adjustment (OCA) valuation technique is described later in this Note.

Valuation of financial instruments

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 or, in the absence of this, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects the Group's non-performance risk. 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 risks 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. 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.

13. Financial instruments continued

Valuation of financial instruments continued

The Valuation Control function is responsible for independent price verification, oversight of fair value and prudent 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 (VBC) 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 are 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 276)
- 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 (page 277)
- Where the estimate 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 277)

- **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. Therefore, once external pricing has been verified, an assessment is made of whether each security is traded with significant liquidity based on its credit rating and sector. If a security is of high credit rating and is traded in a liquid sector, it will be classified as Level 2, otherwise it will be classified as Level 3
  - **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 (OTC) 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

13. Financial instruments continued

Valuation techniques continued

- **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 market observable credit 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 amount. 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 reprices 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 reprice 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:

	31.12.18 $million	31.12.17 $million
Bid-offer valuation adjustment	67	82
CVA	196	229
DVA	(143)	(66)
Model valuation adjustment	6	6
FVA	60	79
Others (including day one)	159	148
Total	345	478

13. Financial instruments continued

Fair value adjustments continued

- **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 makes 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
- **Day one profit and 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 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
- **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 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
- **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
- **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

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 at 31 December 2018 is $476 million, other comprehensive income gain $394 million (31 December 2017: $82 million, other comprehensive income loss $249 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

13. Financial instruments continued

Fair value hierarchy – financial instruments held at fair value continued

The following tables show the classification of financial instruments held at fair value into the valuation hierarchy:

IFRS 9

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	–	3,768	–	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 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	178	3,241	317	3,736
Issued by financial institutions	1,220	3,470	–	4,690
Equity shares	1,364	–	327	1,691
Derivative financial instruments	907	44,702	12	45,621
Of which:				
Foreign exchange	149	31,242	7	31,398
Interest rate	4	12,237	5	12,246
Commodity	754	882	–	1,636
Credit	–	252	–	252
Equity and stock index	–	89	–	89
Investment securities				
Debt securities 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	8,366	9,839	–	18,205
Issued by financial institutions	6,929	20,532	–	27,461
Equity shares	29	4	230	263
Total financial instruments at 31 December 2018[1]	78,021	169,540	1,790	249,351
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	45,995	405	47,209
Of which:				
Foreign exchange	137	32,655	7	32,799
Interest rate	15	12,583	355	12,953
Commodity	657	452	–	1,109
Credit	–	273	8	281
Equity and stock index	–	32	35	67
Total financial instruments at 31 December 2018[1]	2,808	104,253	848	107,909

1 The above table does not include held for sale assets of $887 million and liabilities of $198 million. These are reported in Note 21 together with their fair value hierarchy

There were no significant changes to valuation or levelling approaches in 2018.

There were no significant transfers of financial assets and liabilities measured at fair value between Level 1 and Level 2 during the year.

13. Financial instruments continued

Fair value hierarchy – financial instruments held at fair value continued

IFRS 9

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	–	2,794	71	2,865
Loans and advances to customers	–	3,190	717	3,907
Reverse repurchase agreements and other similar secured lending	–	45,518	–	45,518
Debt securities and other eligible bills	5,860	13,924	431	20,215
Of which:				
Government bonds and treasury bills	4,988	5,529	–	10,517
Issued by corporates other than financial institutions	171	4,115	280	4,566
Issued by financial institutions	701	4,280	151	5,132
Equity shares	1,035	–	1,100	2,135
Derivative financial instruments	402	46,589	40	47,031
Of which:				
Foreign exchange	97	35,641	17	35,755
Interest rate	2	10,065	7	10,074
Commodity	303	609	2	914
Credit	–	249	–	249
Equity and stock index	–	25	14	39
Investment securities				
Debt securities and other eligible bills	61,083	47,010	318	108,411
Of which:				
Government bonds and treasury bills	51,095	21,417	318	72,830
Issued by corporates other than financial institutions	5,647	7,061	–	12,708
Issued by financial institutions	4,341	18,532	–	22,873
Equity shares	59	5	150	214
Total financial instruments at 1 January 2018	68,439	159,030	2,827	230,296
Liabilities				
Financial instruments held at fair value through profit or loss				
Deposits by banks	–	668	69	737
Customer accounts	–	5,236	–	5,236
Repurchase agreements and other similar secured borrowing	–	38,140	–	38,140
Debt securities in issue	–	6,581	442	7,023
Short positions	1,495	2,142	–	3,637
Derivative financial instruments	470	47,606	25	48,101
Of which:				
Foreign exchange	90	36,149	–	36,239
Interest rate	9	9,851	18	9,878
Commodity	371	590	–	961
Credit	–	871	2	873
Equity and stock index	–	145	5	150
Total financial instruments at 1 January 2018	1,965	100,373	536	102,874

The table above is the representation as at 1 January 2018 of the balances after the implementation of IFRS 9.

13. Financial instruments continued

Fair value hierarchy – financial instruments held at fair value continued

IAS 39

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	–	2,501	71	2,572
Loans and advances to customers	–	2,792	126	2,918
Reverse repurchase agreements and other similar secured lending	–	912	–	912
Debt securities and other eligible bills	5,860	13,800	51	19,711
Of which:				
Government bonds and treasury bills	4,988	5,531	–	10,519
Issued by corporates other than financial institutions	171	4,017	48	4,236
Issued by financial institutions	701	4,252	3	4,956
Equity shares	725	–	726	1,451
Derivative financial instruments	402	46,589	40	47,031
Of which:				
Foreign exchange	97	35,641	17	35,755
Interest rate	2	10,065	7	10,074
Commodity	303	609	2	914
Credit	–	249	–	249
Equity and stock index	–	25	14	39
Investment securities				
Debt securities and other eligible bills	61,246	47,511	404	109,161
Of which:				
Government bonds and treasury bills	51,257	21,364	318	72,939
Issued by corporates other than financial institutions	5,648	7,590	86	13,324
Issued by financial institutions	4,341	18,557	–	22,898
Equity shares	369	5	520	894
Total financial instruments at 31 December 2017[1]	68,602	114,110	1,938	184,650
Liabilities				
Financial instruments held at fair value through profit or loss				
Deposits by banks	–	668	69	737
Customer accounts	–	5,236	–	5,236
Debt securities in issue	–	6,581	442	7,023
Short positions	1,495	2,142	–	3,637
Derivative financial instruments	470	47,606	25	48,101
Of which:				
Foreign exchange	90	36,149	–	36,239
Interest rate	9	9,851	18	9,878
Commodity	371	590	–	961
Credit	–	871	2	873
Equity and stock index	–	145	5	150
Total financial instruments at 31 December 2017	1,965	62,233	536	64,734

1 The above table does not include held for sale assets of $466 million. This is reported in Note 21 together with the fair value hierarchy

There were no significant changes to valuation or levelling approaches in 2017.

There were no significant transfers of financial assets and liabilities measured at fair value between Level 1 and Level 2 during 2017.

13. Financial instruments continued

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.

IFRS 9

		Fair value			
	Carrying value $million	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	**61,414**	**–**	**61,357**	**–**	**61,357**
of which: reverse repurchase agreements and other similar secured lending	**3,815**	**–**	**3,842**	**–**	**3,842**
Loans and advances to customers	**256,557**	**–**	**18,514**	**238,797**	**257,311**
of which: reverse repurchase agreements and other similar secured lending	**3,151**	**–**	**2,409**	**744**	**3,153**
Investment securities	**9,303**	**–**	**8,953**	**8**	**8,961**
Other assets[1]	**32,678**	**–**	**32,673**	**–**	**32,673**
Assets held for sale	**135**	**–**	**135**	**–**	**135**
At 31 December 2018	**417,598**	**–**	**179,143**	**238,805**	**417,948**
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	**46,454**	**17,009**	**29,195**	**–**	**46,204**
Subordinated liabilities and other borrowed funds	**15,001**	**14,505**	**23**	**–**	**14,528**
Other liabilities[1]	**37,945**	**–**	**37,945**	**–**	**37,945**
At 31 December 2018	**521,529**	**31,514**	**489,297**	**–**	**520,811**

IFRS 9

		Fair value			
	Carrying value $million	Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Assets					
Cash and balances at central banks[1]	58,864	–	58,864	–	58,864
Loans and advances to banks	62,295	–	62,273	4	62,277
of which: reverse repurchase agreements and other similar secured lending	5,101	–	5,107	–	5,107
Loans and advances to customers	251,507	–	17,684	234,568	252,252
of which: reverse repurchase agreements and other similar secured lending	4,566	–	2,399	2,174	4,573
Investment securities	7,188	–	7,133	86	7,219
Other assets[1]	29,922	–	29,911	–	29,911
Assets held for sale	62	–	62	–	62
At 1 January 2018	409,838	–	175,927	234,658	410,585
Liabilities					
Deposits by banks	30,945	–	30,939	–	30,939
Customer accounts	370,509	–	370,489	–	370,489
Repurchase agreements and other similar secured borrowing	1,639	–	1,639	–	1,639
Debt securities in issue	46,379	15,264	30,158	–	45,422
Subordinated liabilities and other borrowed funds	17,176	17,456	161	–	17,617
Other liabilities[1]	34,982	–	34,982	–	34,982
At 1 January 2018	501,630	32,720	468,368	–	501,088

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

The table above is the representation as at 1 January 2018 of the balances after the implementation of IFRS 9.

13. Financial instruments continued

Fair value hierarchy – financial instruments measured at amortised cost continued

IAS 39

	Carrying value $million	Fair value Level 1 $million	Level 2 $million	Level 3 $million	Total $million
Assets					
Cash and balances at central banks[1]	58,864	–	58,864	–	58,864
Loans and advances to banks	78,188	–	78,069	23	78,092
of which: reverse repurchase agreements and other similar secured lending	20,694	–	20,681	19	20,700
Loans and advances to customers	282,288	–	17,031	266,011	283,042
of which: reverse repurchase agreements and other similar secured lending	33,581	–	2,387	31,199	33,586
Investment securities	6,970	–	6,955	36	6,991
Other assets[1]	29,922	–	29,922	–	29,922
Assets held for sale	62	–	62	–	62
At 31 December 2017	456,294	–	190,903	266,070	456,973
Liabilities					
Deposits by banks	30,945	–	30,939	–	30,939
Customer accounts	370,509	–	370,489	–	370,489
Repurchase agreements and other similar secured borrowing	39,783	–	39,783	–	39,783
Debt securities in issue	46,379	15,264	30,158	–	45,422
Subordinated liabilities and other borrowed funds	17,176	17,456	161	–	17,617
Other liabilities[1]	34,982	–	34,982	–	34,982
At 31 December 2017	539,774	32,720	506,512	–	539,232

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

Loans and advances to customers by client segment[1]

IFRS 9

	31.12.18					
	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**	**102,919**	**104,677**	**1,818**	**102,791**	**104,609**
Retail Banking	**436**	**100,799**	**101,235**	**447**	**101,810**	**102,257**
Commercial Banking	**539**	**26,220**	**26,759**	**652**	**25,989**	**26,641**
Private Banking	**135**	**13,481**	**13,616**	**134**	**13,442**	**13,576**
Central & other items	**–**	**10,270**	**10,270**	**–**	**10,228**	**10,228**
At 31 December 2018	**2,868**	**253,689**	**256,557**	**3,051**	**254,260**	**257,311**

IFRS 9

	01.01.18					
	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	2,355	96,823	99,178	3,729	95,528	99,257
Retail Banking	429	101,617	102,046	465	102,232	102,697
Commercial Banking	587	27,049	27,636	687	26,970	27,657
Private Banking	116	13,207	13,323	116	13,196	13,312
Central & other items	–	9,324	9,324	–	9,329	9,329
At 1 January 2018	3,487	248,020	251,507	4,997	247,255	252,252

1 Loans and advances includes reverse repurchase agreements and other similar secured lending: carrying value $3,151 million and fair value $3,153 million (1 January 2018: $4,566 million and $4,573 million; 31 December 2017: $33,581 million and $33,586 million respectively)

13. Financial instruments continued

Loans and advances to customers by client segment[1] continued

IAS 39

	31.12.17					
	Carrying value			Fair value		
	Impaired $million	Not impaired $million	Total $million	Impaired $million	Not impaired $million	Total $million
Corporate & Institutional Banking	2,465	126,224	128,689	2,491	126,695	129,186
Retail Banking	420	102,593	103,013	422	102,828	103,250
Commercial Banking	596	27,296	27,892	646	27,269	27,915
Private Banking	140	13,211	13,351	140	13,202	13,342
Central & other items	–	9,343	9,343	–	9,349	9,349
At 31 December 2017	3,621	278,667	282,288	3,699	279,343	283,042

1 Loans and advances includes reverse repurchase agreements and other similar secured lending: carrying value $3,151 million and fair value $3,153 million (1 January 2018: $4,566 million and $4,573 million; 31 December 2017: $33,581 million and $33,586 million respectively)

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:

	Value at 31 December 2018					
Instrument	**Assets $million**	**Liabilities $million**	**Principal valuation technique**	**Significant unobservable inputs**	**Range[1]**	**Weighted average[2]**
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	73	–	Comparable pricing/yield	Price/yield	5.4% – 6.3%	5.6%
Asset-backed securities	244	–	Discounted cash flows	Price/yield	1.0% – 11.0%	3.4%
Deposits by banks	–	4	Discounted cash flows	Credit spreads	1.0% – 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
Government bonds and treasury bills	412	–	Discounted cash flows	Price/yield	2.9% – 38.1%	11.2%
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	355	Discounted cash flows	Interest rate curves	6.4% – 16.8%	8.3%
Credit	–	8	Discounted cash flows	Credit spreads	0.3% – 3.0%	0.9%
Equity	–	35	Internal pricing model	Equity correlation	4.5% – 89.5%	N/A
				Equity-FX correlation	-80.0% – 80.0%	N/A
Equity shares (includes private equity investments)[3]	557	–	Comparable pricing/yield	EV/EBITDA multiples	5.2x – 9.1x	8.5x
				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%	14.8%
			Discounted cash flows	Discount rates	7.3% – 13.2%	9.6%
Total	1,790	848				

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. The shares will continue to be valued at the initial offering price until such time as a reliable means of valuing the cash flows and underlying assets is possible or additional sales are observable

13. Financial instruments continued

Level 3 summary and significant unobservable inputs continued

The following section describes the significant unobservable inputs identified in the valuation technique table:

- **Commodities correlation:** This refers to the correlation between two commodity underlyings over a specified time
- **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
- **EV/EBITDA ratio multiples:** This 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
- **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:** A liquidity discount is 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-Book (P/B) multiple:** This 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-Earnings (P/E) multiples:** This 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-Sales (P/S) multiple:** This 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

13. Financial instruments continued

Level 3 movement tables – financial assets

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	Loans and advances to banks $million	Loans and advances to customers $million	Reverse repurchase agreements and other similar secured lending $million	Debt securities and other eligible bills $million	Equity shares $million	Derivative financial instruments $million	Debt securities and other eligible bills $million	Equity shares $million	Total $million
At 31 December 2017 – IAS 39	71	126	–	51	726	40	404	520	1,938
Transfer due to IFRS 9[1]	–	591	–	380	374	–	(86)	(370)	889
At 1 January 2018 – IFRS 9	71	717	–	431	1,100	40	318	150	2,827
Total gains/(losses) recognised in income statement	2	13	–	(44)	(10)	(3)	22	–	(20)
Net trading income	2	13	–	(44)	(10)	(3)	–	–	(42)
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	–	328	55	120	143	70	445	38	1,199
Sales	–	(254)	–	(215)	(176)	(40)	–	(5)	(690)
Settlements	(71)	(261)	–	(6)	–	(14)	(210)	–	(562)
Transfers out[2]	(101)	(112)	(55)	(8)	(743)	(43)	(161)	(1)	(1,224)
Transfers in[3]	99	61	–	39	13	2	–	8	222
At 31 December 2018	–	492	–	317	327	12	412	230	1,790
Total unrealised (losses)/gains recognised in the income statement, within net trading income, relating to change in fair value of assets held at 31 December 2018	–	(2)	–	–	22	(3)	–	–	17

1 The increase in Level 3 instruments is a result of loans and debt securities that failed SPPI, with unobservable valuation inputs. Further, Level 3 equity shares which were classified as available-for-sale equity under IAS 39 are now classified as fair value through profit or loss under IFRS 9

2 Transfers out include loans and advances, reverse repurchase agreements, debt securities 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 $743 million equity shares held for sale

3 Transfers in primarily relate to loans and advances, debt securities and other eligible bills, equity shares and derivative financial instruments where the valuation parameters become unobservable during the year

13. Financial instruments continued

Level 3 movement tables – financial assets 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	Loans and advances to banks $million	Loans and advances to customers $million	Debt securities and other eligible bills $million	Equity shares $million	Derivative financial instruments $million	Debt securities and other eligible bills $million	Equity shares $million	Total $million
At 1 January 2017	–	179	4	995	360	199	549	2,286
Total (losses)/gains recognised in income statement	(1)	(11)	(2)	121	(4)	(15)	(9)	79
Net interest income	–	–	–	–	–	(15)	–	(15)
Net trading income	(1)	(11)	(2)	121	(4)	–	(1)	102
Other operating income	–	–	–	–	–	–	9	9
Impairment charge	–	–	–	–	–	–	(17)	(17)
Total gains recognised in other comprehensive income	–	–	–	–	–	7	54	61
Available-for-sale reserve	–	–	–	–	–	–	41	41
Exchange difference	–	–	–	–	–	7	13	20
Purchases	–	–	94	111[3]	6	399	22	632
Sales	–	–	(20)	(254)	(13)	(1)	(91)	(379)
Settlements	–	–	–	–	(250)	(169)	–	(419)
Transfers out[1]	–	(72)	(25)	(247)[3]	(61)	(16)	(5)	(426)
Transfers in[2]	72	30	–	–	2	–	–	104
At 31 December 2017	71	126	51	726	40	404	520	1,938
Total unrealised losses recognised in the income statement, within net interest income, relating to change in fair value of assets held at 31 December 2017	–	–	–	–	–	(15)	–	(15)
Total unrealised (losses)/gains recognised in the income statement, within net trading income, relating to change in fair value of assets held at 31 December 2017	(1)	(5)	(2)	65	(7)	–	(1)	49
Total unrealised losses recognised in the income statement, within impairment charges at 31 December 2017	–	–	–	–	–	–	(17)	(17)

1 Transfers out include debt securities, 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 relate to equity shares and debt securities held at fair value through profit or loss which are now presented under held for sale

2 Transfers in during the year primarily relate to loans and advances and derivative financial instruments where the valuation parameters become unobservable during the year

3 When an entity is consolidated through a step up in ownership, the additional equity shares acquired are disclosed in the Purchases line. Subsequently these shares are eliminated on consolidation and disclosed in the Transfers out line. Any underlying Level 3 financial instruments which are recognised as a result of the consolidation are disclosed in the Transfers in line

13. Financial instruments continued

Level 3 movement tables – financial liabilities

	31.12.18			
	Deposits by banks $million	Debt securities in issue $million	Derivative financial instruments $million	Total $million
At 1 January 2018	69	442	25	536
Total losses/(gains) recognised in income statement – net trading income	1	(22)	30	9
Issues	4	167	439	610
Settlements	(70)	(148)	(103)	(321)
Transfers out[1]	–	–	(2)	(2)
Transfers in[2]	–	–	16	16
At 31 December 2018	4	439	405	848
Total unrealised (gains)/losses recognised in the income statement, within net trading income, relating to change in fair value of liabilities held at 31 December 2018	–	(5)	8	3

	31.12.17			
	Deposits by banks $million	Debt securities in issue $million	Derivative financial instruments $million	Total $million
At 1 January 2017	–	530	316	846
Total gains recognised in income statement – net trading income	–	(9)	(24)	(33)
Issues	79	274	1	354
Settlements	(10)	(353)	(266)	(629)
Transfers out[1]	–	–	(2)	(2)
At 31 December 2017	69	442	25	536
Total unrealised gains recognised in the income statement, within net trading income, relating to change in fair value of liabilities held at 31 December 2017	–	–	(17)	(17)

1 Transfers out during the year primarily relate to 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

13. Financial instruments continued

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 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.

	Held at fair value through profit or loss			Fair value through other comprehensive income/available-for-sale		
	Net exposure $million	Favourable changes $million	Unfavourable changes $million	Net exposure $million	Favourable changes $million	Unfavourable changes $million
Financial instruments held at fair value						
Debt securities and other eligible bills	**317**	**339**	**295**	**412**	**415**	**409**
Equity shares	**327**	**360**	**294**	**230**	**253**	**207**
Loans and advances	**492**	**498**	**481**	**–**	**–**	**–**
Derivative financial instruments	**(393)**	**(376)**	**(410)**	**–**	**–**	**–**
Deposits by banks	**(4)**	**(4)**	**(4)**	**–**	**–**	**–**
Debt securities in issue	**(439)**	**(417)**	**(461)**	**–**	**–**	**–**
At 31 December 2018	**300**	**400**	**195**	**642**	**668**	**616**
Financial instruments held at fair value						
Debt securities and other eligible bills	51	56	46	404	415	393
Equity shares	726	799	653	520	572	468
Loans and advances	197	201	194	–	–	–
Derivative financial instruments	15	17	12	–	–	–
Deposits by banks	(69)	(68)	(70)	–	–	–
Debt securities in issue	(442)	(434)	(450)	–	–	–
At 31 December 2017	478	571	385	924	987	861

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	31.12.18 $million	31.12.17 $million
Held at fair value through profit or loss	Possible increase	**100**	93
	Possible decrease	**(105)**	(93)
Fair value through other comprehensive income/available-for-sale	Possible increase	**26**	63
	Possible decrease	**(26)**	(63)

14. Derivative financial instruments

Accounting policy

Accounting for derivatives: 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.

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.

	31.12.18			31.12.17		
Derivatives	**Notional principal amounts $million**	**Assets $million**	**Liabilities $million**	Notional principal amounts $million	Assets $million	Liabilities $million
Foreign exchange derivative contracts:						
Forward foreign exchange contracts	**2,080,513**	**16,457**	**17,264**	1,825,488	18,905	19,702
Currency swaps and options	**856,660**	**14,941**	**15,535**	724,021[1]	16,850	16,537
Exchange traded futures and options	**–**	**–**	**–**	100	–	–
	2,937,173	**31,398**	**32,799**	2,549,609	35,755	36,239
Interest rate derivative contracts:						
Swaps	**3,693,897**	**10,800**	**11,331**	2,831,025	8,603	8,414
Forward rate agreements and options	**489,943**	**1,325**	**1,511**	153,697	1,351	1,364
Exchange traded futures and options	**775,518**	**121**	**111**	637,883	120	100
	4,959,358	**12,246**	**12,953**	3,622,605	10,074	9,878
Credit derivative contracts	**39,343**	**252**	**281**	34,772	249	873
Equity and stock index options	**2,960**	**89**	**67**	2,520	39	150
Commodity derivative contracts	**69,601**	**1,636**	**1,109**	74,133	914	961
Total derivatives	**8,008,435**	**45,621**	**47,209**	6,283,639	47,031	48,101

1 Currency swaps and options were previously reported on a gross basis. In line with industry practice, these are now reported on a single leg basis. Prior year comparatives have been re-presented accordingly

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 Derivatives and Hedging sections of the Risk review and Capital review (page 169) explain the Group's risk management of derivative contracts and application of hedging.

14. Derivative financial instruments continued

Derivatives held for hedging

Hedge accounting: The method of recognising the resulting fair value gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either:

a) Hedges of the fair value of recognised assets or liabilities or firm commitments (fair value hedge)

b) Hedges of highly probable future cash flows attributable to a recognised asset or liability, or a forecasted transaction (cash flow hedge)

c) Hedges of the net investment of a foreign operation (net investment hedges)

Hedge accounting is used for derivatives designated in this way, provided certain criteria are met.

The Group 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 various hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items. Expected effectiveness should be close to 100 per cent and actual results of the hedge using regression analysis, are expected to be within a range of 80-125 per cent.

The Group may enter into economic hedges that do not qualify for IAS 39 hedge accounting treatment. Where these economic hedges use derivatives to offset risk, the derivatives are fair valued, with fair value changes recognised in profit or loss.

Fair value hedge: Changes in the fair value of derivatives that are designated and qualify as fair value hedging instruments are recorded in the income statement, within 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 period to maturity or derecognition.

The Group's approach to managing market risk, including interest rate and currency risk is discussed in Market risk (page 181).

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

	31.12.18			31.12.17		
	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	63,675	306	573	45,420	456	272
Currency swaps	8,963	30	942	14,395[1]	174	899
	72,638	336	1,515	59,815	630	1,171
Derivatives designated as cash flow hedges:						
Interest rate swaps	10,733	59	67	13,348	43	48
Forward foreign exchange contracts	184	–	18	356	2	29
Currency swaps	2,701	57	22	2,987	23	107
	13,618	116	107	16,691	68	184
Derivatives designated as net investment hedges:						
Forward foreign exchange contracts	5,200	61	7	3,470	–	188
Total derivatives held for hedging	91,456	513	1,629	79,976	698	1,543

1 Currency swaps were previously reported on a gross basis. In line with industry practice, these are now reported on a single leg basis. Prior year comparatives have been re-presented accordingly

14. Derivative financial instruments continued

Fair value hedges

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. These include fixed rate issued notes, loans and advances to customer and debt securities and other eligible bills.

For qualifying hedges, the fair value changes of the derivative are substantially matched by corresponding fair value changes of the hedged item, both of which are recognised in profit or loss. All qualifying hedges were effective. Included in net losses and net gains below is an adjustment in respect of hedge ineffectiveness. The main source of hedge ineffectiveness is due to basis risk on hedged currencies.

At 31 December 2018 the Group held the following interest rate swaps as hedging instruments in fair value hedges of interest risk.

Maturity of hedging instruments

	31.12.18				
Risk category	Less than one month $million	More than one month and less than one year $million	One to five years $million	More than five years $million	Total $million
Interest rate and currency risk					
Hedge of issued notes					
Notional amount of issued notes	1,030	2,160	15,298	7,937	26,461
Hedge of loans and advances, debt securities and other eligible bills					
Notional of loans and advances	–	489	1,206	62	1,757
Notional of debt securities and other eligible bills	322	14,495	28,744	859	44,420
Total derivatives designated as fair value hedges	1,352	17,144	55,248	8,894	72,638

Effects on hedge accounting on financial position and performance

Hedging instruments and ineffectiveness

	31.12.18				
		Carrying Amount			
Interest rate and currency risk	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Ineffectiveness recognised in profit or loss $million
Interest rate swaps – issued notes	19,112	270	311	(73)	–
Cross currency swaps – subordinated notes issued	7,350	–	937	(622)	(93)
Interest rate swaps – loans and advances	309	1	2	(2)	–
Cross currency swaps – loans and advances	1,448	3	5	(4)	–
Interest rate swaps – debt securities and other eligible bills	42,805	32	256	(164)	(3)
Cross currency swaps – debt securities and other eligible bills	1,614	30	4	14	1
Total interest and currency risk derivatives	72,638	336	1,515	(851)	(95)

14. Derivative financial instruments continued

Hedged items

	31.12.18					
	Carrying amount		Accumulated amount of fair value hedge adjustments included in the carrying amount			
	Asset $million	Liability $million	Asset $million	Liability $million	Change in the value used for calculating hedge ineffectiveness $million	Accumulated amortising amount of fair value hedge adjustments no longer designated as hedges $million
Issued notes	–	26,646	–	982	602	443
Debt securities and other eligible bills	44,885	–	129	–	155	37
Loans and advances to customers	1,147	–	5	–	1	7
Total assets and liabilities being hedged in fair value hedges	46,032	26,646	134	982	758	487

Net trading income impact

	31.12.18 $million	31.12.17 $million
Net losses on hedging instruments	(449)	(154)
Net gains on hedged items[1]	358	81

1 Includes amortisation of fair value adjustments in respect of hedges no longer qualifying for hedge accounting

Cash flow hedges

The Group uses 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.

Gains and losses arising on the effective portion of the hedges are deferred in equity until the variability on the cash flow affects profit or loss, at which time the gains or losses are transferred to profit or loss.

Hedging instruments and ineffectiveness

	31.12.18						
		Carrying amount					
	Notional $million	Asset $million	Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Changes in the value of the hedging instrument recognised in OCI $million	Ineffectiveness recognised in profit or loss $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 contract	184	–	18	9	9	–	–
Cross currency swaps	2,701	57	22	57	57	–	8
Total derivatives designated as cash flow hedges	13,618	116	107	83	83	–	7

Hedged items

	31.12.18		
	Change in the value used for calculating hedge ineffectiveness $million	Cash flow hedge reserve $million	Balances remaining in the cash flow hedge reserve from hedging relationships for which hedge accounting is no longer applied $million
Customer accounts	(66)	18	33
Debt securities and other eligible bills	(9)	(3)	(1)
Loans and advances to customers	(9)	(39)	(12)
Total change in assets and liabilities designated in cash flow hedges	(84)	(24)	20

14. Derivative financial instruments continued

Impact on profit and loss and other comprehensive income

	31.12.18 $million	31.12.17 $million
Losses reclassified from reserves to income statement	(7)	(11)
Losses recognised in operating costs	–	(4)
Gains recognised in other comprehensive income	34	35

The Group has hedged the following cash flows which are expected to impact the income statement in the following years:

31.12.18	Less than one year $million	One to two years $million	Two to three years $million	Three to four years $million	Four to five years $million	Over five years $million	Total $million
Forecast receivable cash flows	78	30	25	11	2	–	146
Forecast payable cash flows	(199)	(76)	(60)	(57)	(43)	(125)	(560)
Total expected cash flows by maturity	(121)	(46)	(35)	(46)	(41)	(125)	(414)

31.12.17	Less than one year $million	One to two years $million	Two to three years $million	Three to four years $million	Four to five years $million	Over five years $million	Total $million
Forecast receivable cash flows	122	40	30	22	8	–	222
Forecast payable cash flows	(97)	(83)	(51)	(49)	(48)	(134)	(462)
Total expected cash flows by maturity	25	(43)	(21)	(27)	(40)	(134)	(240)

Net investment hedges

A foreign currency exposure arises from a net investment in subsidiaries that have a different functional currency from that of the Group. This risk arises from the fluctuation in spot exchange rates between the functional currency of the subsidiaries and the Group's functional currency, which causes the amount of the investment to vary.

The Group uses a combination of foreign exchange contracts and non-derivative financial assets to manage the variability in future exchange rates on its net investments in foreign currencies. Gains and losses arising on the effective portion of the hedges are deferred in equity until the net investment is disposed of.

Hedging instruments and ineffectiveness

31.12.18	Notional $million	Carrying amount: Asset $million	Carrying amount: Liability $million	Change in fair value used to calculate hedge ineffectiveness $million	Changes in the value of the hedging instrument recognised in OCI $million	Ineffectiveness recognised in profit or loss $million	Amount reclassified from reserves to income $million
Derivative forward currency contracts[1]	5,200	61	7	54	54	–	–

1 These derivative forward currency contracts have a maturity of less than one year

Hedged items

31.12.18	Change in the value used for calculating hedge ineffectiveness $million	Translation reserve $million	Balances remaining in the translation reserve from hedging relationships for which hedge accounting is no longer applied $million
Net investments	(54)	54	–

Impact on other comprehensive income

	31.12.18 $million	31.12.17 $million
Gains/(losses) recognised in other comprehensive income	282	(288)

15. Loans and advances to banks and customers

Accounting policy

Refer to Note 13 Financial instruments for the relevant accounting policy.

	31.12.18 $million	31.12.17 $million
Loans and advances to banks	61,420	78,193
Individual impairment provision	–	(4)
Portfolio impairment provision	–	(1)
Expected credit loss	(6)	–
	61,414	78,188
Loans and advances to customers	261,455	287,990
Individual impairment provision	–	(5,237)
Portfolio impairment provision	–	(465)
Expected credit loss	(4,898)	–
	256,557	282,288
Total loans and advances to banks and customers	317,971	360,476

The Group has outstanding residential mortgage loans to Korea residents of $16.9 billion (31 December 2017: $18.5 billion) and Hong Kong residents of $27.8 billion (31 December 2017: $28.3 billion).

Analysis of loans and advances to customers by geographic region and client segments and related impairment provisions as set out within the Risk review and Capital review (pages 151).

16. 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.

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 (GMRA), 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.

16. Reverse repurchase and repurchase agreements including other similar secured lending and borrowing continued

Reverse repurchase agreements and other similar secured lending

	31.12.18 $million	01.01.18 $million	31.12.17 $million
Banks	**20,698**	21,257	21,259
Customers	**41,037**	33,928	33,928
	61,735	55,185	55,187
Of which:			
Fair value through profit or loss	**54,769**	45,518	912
Banks	**16,883**	16,157	565
Customers	**37,886**	29,361	347
Held at amortised cost	**6,966**	9,667	54,275
Banks	**3,815**	5,101	20,694
Customers	**3,151**	4,566	33,581

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:

	31.12.18 $million	01.01.18 $million	31.12.17 $million
Securities and collateral received (at fair value)	**84,557**	75,088	75,088
Securities and collateral which can be repledged or sold (at fair value)	**82,534**	72,982	72,982
Amounts repledged/transferred to others for financing activities, to satisfy liabilities under sale and repurchase agreements (at fair value)	**40,552**	34,018	34,018

Repurchase agreements and other similar secured borrowing

	31.12.18 $million	01.01.18 $million	31.12.17 $million
Banks	**4,984**	3,804	3,804
Customers	**39,417**	35,975	35,979
	44,401	39,779	39,783
Of which:			
Fair value through profit or loss	**43,000**	38,140	–
Banks	**4,777**	3,352	–
Customers	**38,223**	34,788	–
Held at amortised cost	**1,401**	1,639	39,783
Banks	**207**	451	3,804
Customers	**1,194**	1,188	35,979

16. Reverse repurchase and repurchase agreements including other similar secured lending and borrowing continued

Repurchase agreements and other similar secured borrowing continued

The tables below set out the financial assets provided as collateral for repurchase and other secured borrowing transactions:

	31.12.18				
Collateral pledged against repurchase agreements	**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 and other eligible bills	**2,060**	**1,974**	**49**	**–**	**4,083**
Off-balance sheet					
Repledged collateral received	**–**	**–**	**–**	**40,552**	**40,552**
At 31 December 2018	**2,060**	**1,974**	**49**	**40,552**	**44,635**

	01.01.18				
Collateral pledged against repurchase agreements	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 and other eligible bills	2,178	3,618	–	–	5,796
Off-balance sheet					
Repledged collateral received	–	–	–	34,018	34,018
At 1 January 2018	2,178	3,618	–	34,018	39,814

	31.12.17				
Collateral pledged against repurchase agreements	Fair value through profit or loss $million	Available for sale $million	Loans and receivables $million	Off-balance sheet $million	Total $million
On-balance sheet					
Debt securities and other eligible bills	2,178	3,618	–	–	5,796
Off-balance sheet					
Repledged collateral received	–	–	–	34,018	34,018
At 31 December 2017	2,178	3,618	–	34,018	39,814

17. 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 298).

Significant 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 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. 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.

	31.12.18				31.12.17			
	Goodwill $million	Acquired intangibles $million	Computer software $million	Total $million	Goodwill $million	Acquired intangibles $million	Computer software $million	Total $million
Cost								
At 1 January	3,252	578	2,529	6,359	3,456	505	1,881	5,842
Exchange translation differences	(105)	(24)	(67)	(196)	85	38	152	275
Additions	–	1	695	696	31	44	704	779
Disposals	–	–	–	–	–	–	(2)	(2)
Impairment	–	–	–	–	(320)	–	–	(320)
Amounts written off	–	(5)	(322)	(327)	–	(9)	(206)	(215)
Classified as held for sale	(31)	(40)	–	(71)	–	–	–	–
At 31 December	3,116	510	2,835	6,461	3,252	578	2,529	6,359
Provision for amortisation								
At 1 January	–	470	876	1,346	–	431	692	1,123
Exchange translation differences	–	(22)	(21)	(43)	–	35	42	77
Amortisation	–	10	363	373	–	11	320	331
Impairment charge	–	–	46	46	–	2	21	23
Disposals	–	–	–	–	–	–	(2)	(2)
Amounts written off	–	–	(317)	(317)	–	(9)	(197)	(206)
At 31 December	–	458	947	1,405	–	470	876	1,346
Net book value	3,116	52	1,888	5,056	3,252	108	1,653	5,013

At 31 December 2018, accumulated goodwill impairment losses incurred from 1 January 2005 amounted to $2,801 million (31 December 2017: $2,801 million), of which $nil million was recognised in 2018 (31 December 2017: $320 million).

17. Goodwill and intangible assets continued

Goodwill

CGU structure

When considering the generation of independent cash inflows and appropriate level of management, Corporate Finance, Private Banking and Transaction Banking are managed on a global basis, while Retail Banking, Commercial Banking, Central and others 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 2023. 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.

	31.12.18			31.12.17		
Cash generating unit	**Goodwill $million**	**Pre-tax discount rate per cent**	**Long-term forecast GDP growth rates per cent**	Goodwill $million	Pre-tax discount rate per cent	Long-term forecast GDP growth rates per cent
Country CGUs						
Greater China & North Asia	**887**			913		
Hong Kong	**357**	**13.2**	**3.0**	357	14.9	3.0
Taiwan	**530**	**13.0**	**2.1**	556	13.9	2.1
Africa & Middle East	**520**			569		
Pakistan	**194**	**22.8**	**3.4**	242	21.3	5.8
UAE	**204**	**9.0**	**3.3**	204	10.8	3.2
Others (5)[1]	**122**	**10.6–19.0**	**2.6–5.3**	123	11.5–19.6	2.0–6.1
ASEAN & South Asia	**734**			790		
India	**262**	**19.9**	**7.7**	289	18.9	7.9
Singapore	**339**	**15.9**	**2.7**	343	11.8	2.6
Others (6)[2]	**133**	**15.4–20.5**	**4.4–7.0**	158	15.2–19.0	4.0–7.0
Global CGUs	**975**			980		
Global Private Banking	**84**	**10.3**	**3.6**	84	10.2	3.7
Global Corporate Finance	**213**	**10.3**	**3.6**	219	10.3	3.7
Global Transaction Banking	**678**	**10.3**	**3.6**	677	10.3	3.7
	3,116			3,252		

1 Bahrain, Ghana, Jordan, Oman and Qatar

2 Bangladesh, Brunei, Indonesia, Nepal, Sri Lanka and Vietnam

The Group has performed sensitivity analysis on the key assumptions for each CGU's recoverable amount. None of the CGUs are sensitive to reasonable adverse changes in key assumptions (10 per cent fall in cash flow, 1 per cent increase in the discount rate or 1 per cent fall in GDP rates). The following CGUs are considered sensitive to the key variables and any movements up to the levels disclosed below would eliminate the current headroom.

CGU	**Goodwill**	**Cash flow reduction**	**Discount rate increase**	**GDP growth rate decline**
Taiwan	**530**	**26%**	**3%**	**5%**
India	**262**	**33%**	**3%**	**5%**
Pakistan	**194**	**30%**	**5%**	**10%**

17. Goodwill and intangible assets continued

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:

	31.12.18 $million	31.12.17 $million
Acquired intangibles comprise:		
Aircraft maintenance	**24**	24
Brand names	**–**	31
Core deposits	**2**	2
Customer relationships	**19**	32
Licences	**7**	19
Net book value	**52**	108

18. 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.

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 under finance leases, the leased assets are capitalised and included in Property, plant and equipment with a corresponding liability to the lessor recognised in Other liabilities. Finance charges payable are recognised over the period of the lease based on the interest rate implicit in the lease to give a constant periodic rate of return.

All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

18. Property, plant and equipment continued

	31.12.18				31.12.17			
	Premises $million	Equipment $million	Operating lease assets $million	Total $million	Premises $million	Equipment $million	Operating lease assets $million	Total $million
Cost or valuation								
At 1 January	2,216	767	7,000	9,983	2,117	699	6,982	9,798
Exchange translation differences	(80)	(38)	(8)	(126)	119	31	2	152
Additions	46[1]	125[1]	866	1,037	61	104	1,603	1,768
Disposals and fully depreciated assets written off	(92)[2]	(87)[2]	(1,244)	(1,423)	(75)	(66)	(1,587)	(1,728)
Transfers to assets held for sale	(20)	(1)	(291)	(312)	(6)	(1)	–	(7)
As at 31 December	2,070	766	6,323	9,159	2,216	767	7,000	9,983
Depreciation								
Accumulated at 1 January	753	513	1,506	2,772	713	474	1,359	2,546
Exchange translation differences	(25)	(26)	(9)	(60)	27	21	1	49
Charge for the year	86	94	304	484	85	85	328	498
Impairment (release)/charge	(5)	–	155[3]	150	(8)	–	145	137
Attributable to assets sold, transferred or written off	(91)[2]	(86)[2]	(358)	(535)	(58)	(65)	(327)	(450)
Transfers to assets held for sale	(12)	(1)	(129)	(142)	(6)	(2)	–	(8)
Accumulated at 31 December	706	494	1,469	2,669	753	513	1,506	2,772
Net book amount at 31 December	1,364	272	4,854	6,490	1,463	254	5,494	7,211

1 Refer to the cash flow statement premises and equipment under the investing activities segment (page 240) $171 million (31 December 2017: $165 million) for purchase of property, plant and equipment

2 Disposals for property, plant and equipment during the period $85 million (31 December 2017: $29 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 During the year, an impairment charge of $155 million (31 December 2017: $145 million) was recognised in respect of aircraft and ships held as operating lease assets, as the ViU or current market value (CMV) of the assets was lower than the net book value

Operating lease assets

Assets leased to customers under operating leases consist of commercial aircraft and ships which are included within property, plant and equipment. At 31 December 2018, these assets had a net book value of $4,854 million (31 December 2017: $5,494 million).

	31.12.18 Minimum lease receivables under operating leases falling due: $million	31.12.17 Minimum lease receivables under operating leases falling due: $million
Within one year	527	564
Later than one year and not later than five years	1,712	1,881
After five years	997	1,228
	3,236	3,673

19. Operating lease commitments

Accounting policy

The leases entered into by the Group are primarily operating leases. An operating lease is a lease where substantially all of the risks and rewards of the leased assets remain with the lessor. The Group leases various premises under non-cancellable lease arrangements. The total payments made under operating leases are charged to the income statement on a straight-line basis over the period of the lease. When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which the termination takes place.

If an operating lease contains a reinstatement clause, a provision will be raised for the best estimate of the expenses to be incurred at the end of the lease to reinstate the property to its original condition. This cost is amortised over the life of the lease.

	31.12.18		31.12.17	
	Premises $million	Equipment $million	Premises $million	Equipment $million
Commitments under non-cancellable operating leases expiring:				
Within one year	**266**	**2**	255	2
Later than one year and not later than five years	**498**	**1**	603	3
After five years	**140**	**–**	189	–
	904	**3**	1,047	5

During the year $288 million (31 December 2017: $340 million) was recognised as an expense in the income statement in respect of operating leases. The Group leases various premises and equipment under non-cancellable operating lease agreements. The leases have various terms, escalation clauses and renewal rights. The total future minimum sublease payments expected to be received under non-cancellable subleases at 31 December 2018 is $12 million (31 December 2017: $9 million).

20. Other assets

Accounting policy

Refer to Note 13 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.

Other assets include:

	31.12.18 $million	31.12.17 $million
Financial assets held at amortised cost (Note 13):		
Hong Kong SAR Government certificates of indebtedness (Note 23)[1]	**5,964**	5,417
Cash collateral	**10,323**	9,513
Acceptances and endorsements	**4,923**	5,096
Unsettled trades and other financial assets	**11,468**	9,896
	32,678	29,922
Non-financial assets:		
Commodities[2]	**2,488**	3,263
Other assets	**235**	305
	35,401	33,490

1 The Hong Kong SAR Government certificates of indebtedness are subordinated to the claims of other parties in respect of bank notes issued

2 Commodities are carried at fair value and classified as Level 2

21. 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: Recognition and Measurement. Refer to Note 13 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

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 2019.

The financial assets held at fair value through profit or loss reported below are classified under Level 1 $82 million, Level 2 $14 million and Level 3 $791 million (31 December 2017: $466 million).

Assets held for sale	31.12.18 $million	31.12.17 $million
Debt securities	14	47
Equity shares	873	419
Financial assets held at fair value through profit or loss[1]	887	466
Loans and advances to banks	112	–
Loans and advances to customers	23	2
Debt securities held at amortised cost	–	60
Financial assets held at amortised cost	135	62
Goodwill and intangible assets	71	–
Property, plant and equipment[2]	170	13
Others	65	4
	1,328	545

1 Principal Finance assets of $887 million (31 December 2017: $216 million), classified as financial assets held at fair value through profit or loss comprising of debt securities ($14 million) and equity shares ($873 million), is expected to be disposed of by the end of 2019

2 Aircraft classified as held for sale by Pembroke Air Leasing Finance for $162 million (31 December 2017: nil) is included within property, plant and equipment

Reported below are the associated financial liabilities held for sale of the Principal Finance business amounting to $198 million (31 December 2017: nil), all of which are classified under Level 3. The transactions are expected to complete in 2019.

Liabilities held for sale	31.12.18 $million	31.12.17 $million
Derivative financial instruments[1]	198	
Financial liabilities held at fair value through profit or loss	198	–
Other liabilities	48	–
Provisions for liabilities and charges	1	–
	247	–

1 The derivative liability is a fixed price forward sale contract to sell the Principal Finance assets

22. Debt securities in issue

Accounting policy
Refer to Note 13 Financial instruments for the relevant accounting policy.

	31.12.18			31.12.17		
	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	**20,949**	**25,505**	**46,454**	20,460	25,919	46,379
Debt securities in issue included within:						
Financial liabilities held at fair value through profit or loss (Note 13)	**–**	**7,405**	**7,405**	117	6,906	7,023
Total debt securities in issue	**20,949**	**32,910**	**53,859**	20,577	32,825	53,402

In 2018, the Company issued a total of $4.6 billion senior notes for general business purposes of the Group as shown below:

Securities	**$million**
$1,400 million callable fixed rate senior notes due 2023	**1,400**
$1,250 million callable fixed rate senior notes due 2024	**1,250**
JPY 111 billion callable fixed rate senior notes due 2024	**1,011**
$600 million callable floating rate senior notes due 2023	**600**
JPY 18.9 billion fixed rate senior notes due 2025	**172**
$28 million fixed rate senior notes due 2026	**28**
JPY 10 billion callable fixed rate senior notes due 2029	**91**

23. Other liabilities

Accounting policy
Refer to Note 13 Financial instruments for the relevant accounting policy.

	31.12.18 $million	31.12.17 $million
Financial liabilities held at amortised cost (Note 13)		
Notes in circulation[1]	**5,964**	5,417
Acceptances and endorsements	**4,923**	5,096
Cash collateral	**9,259**	9,825
Unsettled trades and other financial liabilities	**17,799**	14,644
	37,945	34,982
Non-financial liabilities		
Cash-settled share-based payments	**32**	39
Other liabilities	**332**	236
	38,309	35,257

1 Hong Kong currency notes in circulation of $5,964 million (31 December 2017: $5,417 million) that are secured by the Government of Hong Kong SAR certificates of indebtedness of the same amount included in other assets (Note 20)

24. 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.

	31.12.18			31.12.17		
	Provision for credit commitments $million	Other provisions $million	Total $million	Provision for credit commitments $million	Other provisions $million	Total $million
At 31 December IAS 39	83	100	183	109	104	213
IFRS 9 expected credit loss	176	–	176	–	–	–
At 1 January IFRS 9	259	100	359	109	104	213
Exchange translation differences	(9)	(1)	(10)	(2)	1	(1)
Transfer	–	39	39	–	–	–
Charge/(release) against profit	39	956	995	(23)	83	60
Provisions utilised	(8)	(45)	(53)	(1)	(88)	(89)
At 31 December	281	1,049	1,330	83	100	183

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 (including provisions for potential penalties relating to the US investigation, the FCA decision and the previously disclosed foreign exchange trading issues), the nature of which are described in Note 26 (page 305).

25. 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 statement as commitments.

Capital commitments are contractual commitments the Group has entered into to purchase non-financial assets.

25. Contingent liabilities and commitments continued

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.

	31.12.18 $million	31.12.17[1] $million
Contingent liabilities		
Guarantees and irrevocable letters of credit	**36,511**	31,429
Other contingent liabilities	**5,441**	6,210
	41,952	37,639
Commitments		
Documentary credits and short-term trade-related transactions	**3,982**	5,808
Undrawn formal standby facilities, credit lines and other commitments to lend		
One year and over	**71,467**	77,033
Less than one year	**37,041**	30,122
Unconditionally cancellable	**39,220**	40,823
	151,710	153,786

1 Contingent liabilities and commitments have been restated, as a result of the availability of more reliable, centralised information following the implementation of IFRS 9. The ageing of commitments is now based on residual rather than original maturity

Capital commitments		
Contracted capital expenditure approved by the directors but not provided for in these accounts[1]	**450**	**468**

1 of which: the Group has commitments totalling $439 million to purchase aircraft for delivery in 2019 (31 December 2017: $458 million). Pre-delivery payments of $5 million have been made to date in respect of these aircraft

The Group's share of contingent liabilities and commitments relating to joint ventures is $0.2 billion (31 December 2017: $0.2 billion). As set out in Note 26, 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.

26. 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.

Claims and other proceedings

The Group receives legal claims against it in a number of jurisdictions and is subject to regulatory investigations and proceedings arising in the normal course of business.

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.

2012 Settlements with certain US authorities

In 2012, the Group reached settlements with certain US authorities regarding US sanctions compliance in the period 2001 to 2007, involving a Consent Order by the New York Department of Financial Services (NYDFS), a Cease and Desist Order by the Board of Governors of the Federal Reserve System (Fed), Deferred Prosecution Agreements (DPAs) with each of the Department of Justice (DOJ) and the New York County District Attorney's Office (DANY) and a Settlement Agreement with the Office of Foreign Assets Control (together, the 'Settlements' and together the foregoing authorities, the 'US authorities'). In addition to the civil penalties totalling $667 million, the terms of these Settlements include a number of conditions and ongoing obligations with regard to improving sanctions, Anti-Money Laundering (AML) and Bank Secrecy Act (BSA) controls such as remediation programmes, reporting requirements, compliance reviews and programmes, banking transparency requirements, training measures, audit programmes, disclosure obligations and, in connection with the NYDFS Consent Order, the appointment of an independent monitor (Monitor).

In December 2014, the Group announced that the DOJ, DANY and the Group had agreed to a three-year extension of the DPAs, resulting in the subsequent retention of the Monitor to evaluate and make recommendations regarding the Group's sanctions compliance programme. The DPAs (and the term of the independent monitor) have been subject to subsequent extensions and currently expire on 31 March 2019.

26. Legal and regulatory matters continued

Claims and other proceedings continued

2014 Settlement with NYDFS

In August 2014, the Group announced that it had reached a final settlement with the NYDFS regarding deficiencies in the AML transaction surveillance system in its New York branch (the 'Branch'). The system, which is separate from the sanctions screening process, is one part of the Group's overall financial crime controls and is designed to alert the Branch to unusual transaction patterns that require further investigation on a post-transaction basis.

The settlement provisions included a civil monetary penalty of $300 million; various remediation requirements and the appointment of the Monitor which eventually expired on 31 December 2018.

In November 2018, the Group announced it had agreed to engage an independent consultant selected by the NYDFS for up to one year with a possible extension for up to one additional year to provide guidance in connection with tasks necessary to complete the remediation contemplated by the 2012 and 2014 Consent Orders.

2019 Settlement relating to FX trading

In January 2019, the Group reached a settlement with the NYDFS regarding past control failures and improper conduct related to the Group's FX trading and sales business between 2007 and 2013. As part of this settlement the Group agreed to pay a civil monetary penalty of $40 million to the NYDFS. A provision has been made in these financial statements for the previously disclosed investigations relating to the FX trading issues including the January 2019 settlement with the NYDFS.

Investigations into legacy financial crime control issues

The Group has received a decision notice from the Regulatory Decisions Committee of the Financial Conduct Authority (FCA) relating to the previously disclosed investigation by the FCA concerning the Group's historical financial crime control issues, and is considering its options in relation to this decision notice, including the possibility of an appeal. The decision notice imposes a penalty of £102 million (net of early settlement discount) on the Group. This investigation had been focused on the effectiveness and governance of those historical financial crime controls from 2009 through 2014 within the correspondent banking business carried out by the Group's London branch, particularly in relation to the business carried on with respondent banks from outside the European Economic Area, and the effectiveness and governance of those controls in one of the Group's overseas branches and the oversight exercised at Group level over those controls.

The Group continues its discussions relating to the potential resolution of an investigation by the US authorities relating to historical violations of US sanctions laws and regulations. In contrast to the 2012 settlements, which focused on the period before the Group's 2007 decision to stop doing new business with known Iranian parties, this investigation is focused on examining the extent to which conduct and control failures permitted clients with Iranian interests to conduct transactions through Standard Chartered Bank after 2007. The vast majority of the issues under investigation pre-date 2012 and none occurred after 2014.

The resolution of the US investigation may involve a range of civil and criminal penalties including substantial monetary penalties combined with other compliance measures such as remediation requirements and/or business restrictions.

A provision has been made in these financial statements for the penalty in the FCA decision notice and potential penalties relating to the investigation by the US authorities. This provision reflects management's current view of the appropriate level of provision. Resolution of the US investigation and the FCA process might ultimately result in a different level of penalties.

Other proceedings

Since November 2014, seven 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. The lawsuits are at an early procedural stage, with motions to dismiss pending in two of the seven lawsuits. Based on the facts currently known, it is not possible for the Group to predict the outcome of these lawsuits.

The Director of Public Prosecutions (DPP) and related agencies in Kenya are investigating Standard Chartered Kenya Limited (SCBK) and other banks in connection with the alleged theft of funds from Kenya's State Department of Public Service, Youth and Gender Affairs. This investigation follows fines being imposed on those banks, including SCBK, by the Central Bank of Kenya regarding adequacy of controls related to the processing of the allegedly stolen funds. The DPP has announced that it has received recommendations from the Kenyan Directorate of Criminal Investigations that charges should be brought against a number of banks, including SCBK, bank officials and other individuals. The Group does not know whether any charges will be brought, but there may be penalties or other financial consequences for SCBK in connection with this investigation.

27. Subordinated liabilities and other borrowed funds

Accounting policy

Subordinated liabilities and other borrowed funds are classified as financial instruments. Refer to Note 13 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.

	31.12.18 $million	31.12.17 $million
Subordinated loan capital – issued by subsidiary undertakings		
£700 million 7.75 per cent subordinated notes 2018[1]	–	956
£675 million 5.375 per cent undated step up subordinated notes (callable 2020)[1]	296	327
£200 million 7.75 per cent subordinated notes (callable 2022)[1]	53	221
$750 million 5.875 per cent subordinated notes 2020[2]	754	768
$700 million 8.0 per cent subordinated notes 2031[1]	405	426
BWP 127.26 million 8.2 per cent subordinated notes 2022 (callable)[3]	12	13
BWP 70 million floating rate subordinated notes 2021 (callable)[3]	7	7
BWP 50 million floating rate notes 2022 (callable)[3]	5	5
JPY 10 billion 3.35 per cent subordinated notes 2023 (callable 2018)[1]	–	89
KRW 90 billion 6.05 per cent subordinated debt 2018[4]	–	85
SGD 450 million 5.25 per cent subordinated notes 2023 (callable 2018)[1]	–	339
	1,532	3,236
Subordinated loan capital – issued by the Company[5]		
Primary capital floating rate notes:		
$400 million	16	16
$300 million (Series 2)	69	69
$400 million (Series 3)	50	50
$200 million (Series 4)	26	26
£150 million	15	16
£900 million 5.125 per cent subordinated debt 2034	797	1,498
$2 billion 5.7 per cent subordinated debt 2044	2,387	2,395
$2 billion 3.95 per cent subordinated debt 2023	1,941	1,959
$1 billion 5.7 per cent subordinated notes 2022	1,003	1,004
$1 billion 5.2 per cent subordinated debt 2024	1,001	1,014
$750 million 5.3 per cent subordinated debt 2043	787	787
€1.25 billion 4 per cent subordinated debt 2025 (callable 2020)	1,472	1,565
€750 million 3.625 per cent subordinated notes 2022	907	958
€500 million 3.125 per cent subordinated debt 2024	587	613
SGD 700 million 4.4 per cent subordinated notes 2026 (callable 2021)	516	531
$1.25 billion4.3 per cent subordinated debt 2027	1,129	1,144
$500 million 4.886 per cent subordinated debt 2033	498	–
Other subordinated borrowings – issued by the Company[6]	268	295
	13,469	13,940
Total for Group	15,001	17,176

1 Issued by Standard Chartered Bank

2 Issued by Standard Chartered Bank (Hong Kong) Limited

3 Issued by Standard Chartered Bank Botswana Limited

4 Issued by Standard Chartered Bank Korea Limited

5 In the balance sheet of the Company the amount recognised is $13,436 million (2017: $13,882 million), with the difference being the effect of hedge accounting achieved on a Group basis

6 Other subordinated borrowings includes irredeemable preference shares (Note 28)

27. Subordinated liabilities and other borrowed funds continued

	31.12.18				
	USD $million	GBP $million	EUR $million	Others $million	Total $million
Fixed rate subordinated debt	**9,905**	**1,414**	**2,966**	**528**	**14,813**
Floating rate subordinated debt	**161**	**15**	**–**	**12**	**188**
Total	**10,066**	**1,429**	**2,966**	**540**	**15,001**

	31.12.17				
	USD $million	GBP $million	EUR $million	Others $million	Total $million
Fixed rate subordinated debt	9,497	3,297	3,136	1,057	16,987
Floating rate subordinated debt	161	16	–	12	189
Total	9,658	3,313	3,136	1,069	17,176

Redemptions and repurchases during the period

On 19 March 2018, Standard Chartered Bank Korea Limited redeemed KRW90 billion 6.05 per cent subordinated debt 2018 on its maturity.

On 3 April 2018, Standard Chartered Bank redeemed £700m 7.75 per cent subordinated notes 2018 on its maturity.

On 10 April 2018, Standard Chartered Bank exercised its right to redeem SGD450 million 5.25 per cent subordinated notes 2023 (callable 2018).

On 18 April 2018, Standard Chartered Bank exercised its right to redeem JPY10 billion 3.35 per cent subordinated notes 2023 (callable 2018).

On 14 June 2018, Standard Chartered Bank repurchased in part, £95.1 million of its £200 million 7.75 per cent subordinated notes (callable 2022).

On 14 June 2018, Standard Chartered PLC repurchased in part, £372.5 million of its £900 million 5.125 per cent subordinated debt 2034.

Issuances during the period

On 15 March 2018, Standard Chartered PLC issued $500 million 4.866 per cent subordinated debt 2033 (callable 2028).

28. 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.

	Number of ordinary shares millions	Ordinary share capital[1] millions	Share premium[2] millions	Total share capital and share premium millions	Other equity instruments millions
At 1 January 2017	3,284	1,642	5,449	7,091	3,969
Shares issued	12	6	–	6	992
At 31 December 2017	**3,296**	**1,648**	**5,449**	**7,097**	**4,961**
Capitalised on scrip dividend	**2**	**1**	**(1)**	**–**	**–**
Shares issued	**10**	**5**	**9**	**14**	**–**
At 31 December 2018	**3,308**	**1,654**	**5,457**	**7,111**	**4,961**

1 Issued and fully paid ordinary shares of 50 cents each

2 Includes $1,494 million of share premium relating to preference capital

28. Share capital, other equity instruments and reserves continued

Ordinary share capital

In accordance with the Companies Act 2006 the Company does not have authorised share capital. The nominal value of each ordinary share is 50 cents.

On 17 May 2018, the Company issued 1,354,700 new ordinary shares instead of the 2017 final dividend. On 22 October 2018, the Company issued 876,126 new ordinary shares instead of the 2018 interim dividend.

During the period 10,008,515 shares were issued under employee share plans at prices between nil and 620 pence.

Preference share capital

At 31 December 2018, the Company has 15,000 $5 non-cumulative redeemable preference shares in issue, with 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 and are classified in equity.

The available profits of the Company are distributed to the holders of the issued preference shares in priority to payments made to holders of the ordinary shares and in priority to, or pari passu with, any payments to the holders of any other class of shares in issue. On a winding up, the assets of the Company are applied to the holders of the preference shares in priority to any payment to the ordinary shareholders and in priority to, or pari passu with, the holders of any other shares in issue, for an amount equal to any dividends accrued and/or payable and the nominal value of the shares together with any premium as determined by the Board. The redeemable preference shares are redeemable at the paid up amount (which includes premium) at the option of the Company in accordance with the terms of the shares. The holders of the preference shares are not entitled to attend or vote at any general meeting except where any relevant dividend due is not paid in full or where a resolution is proposed varying the rights of the preference shares.

Other equity instruments

On 2 April 2015, Standard Chartered PLC issued $2,000 million Fixed Rate Resetting Perpetual Subordinated Contingent Convertible Securities as Additional Tier 1 (AT1) securities, raising $1,987 million after issue costs. On 18 August 2016, Standard Chartered PLC issued a further $2,000 million Fixed Rate Resetting Perpetual Subordinated Contingent Convertible Securities as AT1 securities, raising $1,982 million after issue costs. On 18 January 2017, Standard Chartered PLC issued a further $1,000 million Fixed Rate Resetting Perpetual Subordinated Contingent Convertible Securities as AT1 securities, raising $992 million after issue costs. All the 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 Standard Chartered PLC in whole but not in part, on the first interest reset date and each date falling five years after the first reset 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 Standard Chartered PLC giving notice to the relevant regulator and the regulator granting permission to redeem
- The interest rate in respect of the securities issued on 2 April 2015 for the period from (and including) the issue date to (but excluding) 2 April 2020 is a fixed rate of 6.50 per cent per annum. The first reset date for the interest rate is 2 April 2020 and each date falling five, or an integral multiple of five years after the first reset date
- The interest rate in respect of the securities issued on 18 August 2016 for the period from (and including) the issue date to (but excluding) 2 April 2022 is a fixed rate of 7.50 per cent per annum. The first reset date for the interest rate is 2 April 2022 and each date falling five years, or an integral multiple of five years, after the first reset date
- The interest rate in respect of the securities issued on 18 January 2017 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 first reset date for the interest rate is 2 April 2023 and each date falling five years, or an integral multiple of five years, after the first reset date
- The interest 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 Standard Chartered PLC, subject to certain additional restrictions set out in the terms and conditions. Accordingly, Standard Chartered PLC 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 convert into ordinary shares of Standard Chartered PLC, at a pre-determined price, should the fully loaded Common Equity Tier 1 ratio of the Group fall below 7.0 per cent. Approximately 572 million ordinary shares would be required to satisfy the conversion of all the securities mentioned above

The securities rank behind the claims against Standard Chartered PLC of (a) unsubordinated creditors, (b) which are expressed to be subordinated to the claims of unsubordinated creditors of Standard Chartered PLC but not further or otherwise; or (c) which are, or are expressed to be, junior to the claims of other creditors of Standard Chartered PLC, 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 conversion trigger.

28. Share capital, other equity instruments and reserves continued

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
- Merger reserve represents the premium arising on shares issued using a cash box financing structure, which required the Company to create a merger reserve under section 612 of the Companies Act 2006. Shares were issued using this structure in 2005 and 2006 to assist in the funding of certain acquisitions, in 2008, 2010 and 2015 for the shares issued by way of a rights issue, and for the shares issued in 2009 in the placing. The funding raised by the 2008 and 2010 rights issues and 2009 share issue was fully retained within the Company
- 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. Following the Group's decision to early apply this IFRS 9 requirement the cumulative OCA component of financial liabilities designated at fair value through profit or loss has been transferred from opening retained earnings to the OCA reserve. 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
- Fair value through OCI debt reserve represents the unrealised fair value gains and losses in respect of financial assets classified as fair value through OCI, net of expected credit losses and 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. Fair value through OCI equity reserve represents unrealised fair value gains and losses in respect of financial assets classified as fair value through OCI, net of taxation. Gains and losses are recorded in this reserve and never recycled to the income statement
- 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 are 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 2018, the distributable reserves of Standard Chartered PLC (the Company) were $15.1 billion (31 December 2017: $15.1 billion). These comprised retained earnings and $12.5 billion of the merger reserve account. Distribution of reserves is subject to maintaining minimum capital requirements.

Own shares

Computershare Trustees (Jersey) Limited is the trustee of the 2004 Employee Benefit Trust ('2004 Trust') and Ocorian Trustees (Jersey) Limited (formerly known as Bedell Trustees Limited) is the trustee of the 1995 Employees' Share Ownership Plan Trust ('1995 Trust'). The 2004 Trust is used in conjunction with the Group's employee share schemes and the 1995 Trust is used for the delivery of other employee share-based payments (such as upfront shares and fixed pay allowances). Group companies fund these trusts from time to time to enable the trustees to acquire shares to satisfy these arrangements.

Except as disclosed, neither the Company nor any of its subsidiaries has bought, sold or redeemed any securities of the Company listed on The Stock Exchange of Hong Kong Limited during the period. Details of the shares purchased and held by the trusts are set out below.

	1995 Trust		2004 Trust		Total	
Number of shares	**31.12.18**	31.12.17	**31.12.18**	31.12.17	**31.12.18**	31.12.17
Shares purchased during the period	**1,017,941**	–	**–**	–	**1,017,941**	–
Market price of shares purchased ($million)	**8**	–	**–**	–	**8**	–
Shares held at the end of the period	**2,354,820**	3,769,011	**16,755**	18,004	**2,371,575**	3,787,015
Maximum number of shares held during the period					**3,787,015**	6,182,467

29. 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
At 1 January 2017	321
Income in equity attributable to non-controlling interests	1
Other profits attributable to non-controlling interests	49
Comprehensive income for the year	50
Distributions	(51)
Other increases[1]	21
At 31 December 2017	**341**
Expected credit loss, net	**(8)**
At 1 January 2018	**333**
Income in equity attributable to non-controlling interests	**(21)**
Other profits attributable to non-controlling interests	**55**
Comprehensive income for the year	**34**
Distributions	**(97)**
Other increases[2]	**3**
At 31 December 2018	**273**

1 Mainly due to additional shares issued including the premium by Nepal of $12 million and $9 million with respect to an acquisition during 2017

2 Mainly due to additional shares issued by Angola

30. 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. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using an interest rate equal to the yield on high-quality corporate bonds of the same currency and term as the benefit payments.

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.

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; the sensitivity of the liabilities to changes in these assumptions is shown in the Note below.

30. Retirement benefit obligations continued

Retirement benefit obligations comprise:

	31.12.18 $million	31.12.17 $million
Defined benefit plans obligation	386	443
Defined contribution plans obligation	13	12
Net obligation	399	455

Retirement benefit charge comprises:

	31.12.18 $million	31.12.17 $million
Defined benefit plans	81	98
Defined contribution plans	284	259
Charge against profit/(loss) (Note 7)	365	357

The 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 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 Group to currency risk, interest rate risk, investment risk and actuarial risks such as longevity risk.

The material holdings of government and corporate bonds (page 314) partially hedge movements in the liabilities resulting from interest rate changes. Setting aside movements from other drivers such as currency fluctuation, the increases in discount rates in most geographies over 2018 have led to lower liabilities. These have been somewhat offset by falls in the value of bonds held and poor stock market performance. These movements are shown as actuarial gains versus losses respectively in the tables below. Contributions into a number of plans in excess of the amounts required to fund benefits accruing have also helped to reduce the net deficit 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 2018.

UK Fund

The Standard Chartered Pension Fund (the 'UK Fund') is the Group's largest pension plan, representing 58 per cent (31 December 2017: 60 per cent) of total pension liabilities, and provides pensions based on 1/60th of final salary per year of service, normally payable from age 60. 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 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 disclosed (on page 313), and agreed with the UK Fund trustee. It revealed a past service deficit of $203 million (£159 million). To repair the deficit, four annual cash payments of $42.0 million (£32.9 million) were agreed, with the first of these paid in December 2018. The agreement allows that if the funding position improves to being at or near a surplus in future years the three payments from December 2019 will be reduced or eliminated. In addition, an escrow account of $140 million (£110 million) exists to provide security for future contributions.

With effect from 1 July 1998, the UK Fund was closed to new entrants and new employees are offered membership of a defined contribution plan. With effect from 1 April 2018 the UK Fund was closed to further accrual of benefits for the 91 active members remaining at that time. There is no accounting impact as a result of the closure as the liabilities represented by the benefits already accrued are not expected to be significantly altered by the closure.

As at 31 December 2018, the weighted average duration of the UK Fund was 14 years (31 December 2017: 15 years).

A judgement in respect of Lloyds Bank on 26 October 2018 addressed the requirement to equalise the impact of Guaranteed Minimum Pensions (GMP) for males and females. The impact on the UK Fund of this judgement was estimated by the Scheme Actuary to be $2 million. This impact has been recognised as a past service cost in the income statement.

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.

30. Retirement benefit obligations continued

Overseas plans

The principal overseas defined benefit arrangements operated by the Group are in Germany, Hong Kong, India, Jersey, Korea, Taiwan, United Arab Emirates (UAE) and the United States of America (US).

Key assumptions

The principal financial assumptions used at 31 December 2018 were:

	Funded plans			
	UK Fund		Overseas Plans[1]	
	31.12.18 %	31.12.17 %	**31.12.18 %**	31.12.17 %
Discount rate	**2.8**	2.5	**0.9 – 7.6**	1.0 – 7.2
Price Inflation	**2.1**	2.1	**1.0 – 5.0**	1.0 – 5.0
Salary increases	**n/a**	2.1	**2.1 – 7.0**	2.1 – 7.0
Pension increases	**2.1**	2.1	**0.0 – 3.2**	1.6 – 3.2

1 The range of assumptions shown is for the main defined benefit overseas plans in Germany, Hong Kong, India, Jersey, Korea, Taiwan, UAE and the US. These comprise over 90 per cent of the total liabilities of overseas defined benefit 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 2017: 28 years) and a female member for 29 years (31 December 2017: 29 years) and a male member currently aged 40 will live for 30 years (31 December 2017: 30 years) and a female member for 30 years (31 December 2017: 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 $55 million for the UK Fund (31 December 2017: $65 million) and $30 million for the other plans (31 December 2017: $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 $40 million for the UK Fund (31 December 2017: $45 million) and $20 million for the other plans (31 December 2017: $20 million)
- If the rate salaries increase compared to inflation increased by 25 basis points the liability would increase by nil for the UK Fund (31 December 2017: $2 million) and approximately $15 million for the other plans (31 December 2017: $15 million)
- If longevity expectations increased by one year the liability would increase by approximately $45 million for the UK Fund (31 December 2017: $55 million) and $15 million for the other plans (31 December 2017: $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.

	Unfunded plans			
	US post-retirement medical[1]		Other[2]	
	31.12.18 %	31.12.17 %	**31.12.18 %**	31.12.17 %
Discount rate	**4.4**	3.8	**2.7 – 7.6**	2.3 – 7.2
Price inflation	**2.5**	2.5	**2.0 – 5.0**	1.9 – 5.0
Salary increases	**4.0**	N/A	**3.5 – 7.0**	2.1 – 7.0
Pension increases	**N/A**	N/A	**0.0 – 2.1**	0.0 – 2.1
Post-retirement medical rate	**9% in 2018 reducing by 1% per annum to 5% in 2022**	8% in 2017 reducing by 1% per annum to 5% in 2020	**N/A**	N/A

1 The US post-retirement medical plan was closed to new entrants and eligibility for benefits tightened in 2017. This is reflected in the pension cost table below

2 The range of assumptions shown is for the main unfunded plans in India, Korea, Thailand, UAE and the UK. They comprise around 85 per cent of the total liabilities of unfunded plans

30. Retirement benefit obligations continued

Key assumptions continued

Fund values:

The fair value of assets and present value of liabilities of the plans attributable to defined benefit members were:

	31.12.18				31.12.17			
	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	166	310	N/A	N/A	180	354	N/A	N/A
Government bonds	762	176	N/A	N/A	752	191	N/A	N/A
Corporate bonds	147	87	N/A	N/A	140	87	N/A	N/A
Absolute Return Fund	147	–	N/A	N/A	177	–	N/A	N/A
Hedge funds[1]	110	–	N/A	N/A	190	2	N/A	N/A
Insurance linked funds[1]	36	–	N/A	N/A	38	–	N/A	N/A
Opportunistic credit[1]	15	–	N/A	N/A	60	–	N/A	N/A
Property	44	14	N/A	N/A	64	13	N/A	N/A
Derivatives	(7)	3	N/A	N/A	5	4	N/A	N/A
Cash and equivalents	136	221	N/A	N/A	91	195	N/A	N/A
Others[1]	9	34	N/A	N/A	10	39	N/A	N/A
Total fair value of assets[2]	1,565	845	N/A	N/A	1,707	885	N/A	N/A
Present value of liabilities	(1,615)	(974)	(17)	(190)	(1,827)	(996)	(18)	(194)
Net pension (liability)/asset	(50)	(129)	(17)	(190)	(120)	(111)	(18)	(194)

1 Unquoted assets

2 Self-investment is monitored closely and is less than $1 million of Standard Chartered equities and bonds for 2018 (31 December 2017: $2 million). Self-investment is only allowed where it is not practical to exclude it – for example through investment in index-tracking funds where the Group is a constituent of the relevant index

The pension cost for defined benefit plans was:

	Funded plans		Unfunded plans		
31.12.18	UK Fund $million	Overseas plans $million	Post-retirement medical $million	Other $million	Total $million
Current service cost	1	54	–	12	67
Past service cost and curtailments[1]	2	–	–	–	2
Settlement cost[2]	–	–	–	1	1
Interest income on pension plan assets	(41)	(27)	–	–	(68)
Interest on pension plan liabilities	44	29	1	5	79
Total charge to profit before deduction of tax	6	56	1	18	81
Losses/(gains) on plan assets excluding interest income[3]	67	46	–	–	113
Losses/(gains) on liabilities	(76)	(17)	(2)	1	(94)
Total losses/(gains) recognised directly in statement of comprehensive income before tax	(9)	29	(2)	1	19
Deferred taxation	2	(8)	–	–	(6)
Total losses/(gains) after tax	(7)	21	(2)	1	13

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 defined benefit pension schemes to equalise the impact of Guaranteed Minimum Pensions (GMPs) for males and females

2 The costs arise 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

30. Retirement benefit obligations continued

Key assumptions continued

31.12.17	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	4	53	–	16	73
Past service cost and curtailments[1]	(6)	7	(4)	–	(3)
Settlement cost[2]	–	(1)	–	8	7
Interest income on pension plan assets	(43)	(23)	–	–	(66)
Interest on pension plan liabilities	46	28	1	12	87
Total charge/(credit) to profit before deduction of tax	1	64	(3)	36	98
Return on plan assets excluding interest income[3]	(30)	(83)	–	–	(113)
Losses/(gains) on liabilities	41	51	–	(11)	81
Total losses/(gains) recognised directly in statement of comprehensive income before tax	11	(32)	–	(11)	(32)
Deferred taxation	28	7	–	–	35
Total losses/(gains) after tax	39	(25)	–	(11)	3

1 The gain In the UK Fund is due to the lower 2017 discretionary pension increase awarded. Costs arising in funded overseas schemes arise primarily in India from the expected statutory increase in the gratuity payment celling, an early retirement severance plan and a discretionary increase to minimum pensions. The gain in the post-retirement medical plan arises due to the reduction in eligibility criteria in the US plan

2 The costs arise primarily from the settlement of benefits in Thailand

3 The actual return on the UK Fund assets was a loss of $73 million and on overseas plan assets was a gain of $106 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 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 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)

	Funded plans UK Fund $million	Funded plans Overseas plans $million	Unfunded plans Post-retirement medical $million	Unfunded plans Other $million	Total $million
Deficit at 1 January 2017	(116)	(159)	(22)	(198)	(495)
Contributions	19	92	1	31	143
Current service cost	(4)	(53)	–	(16)	(73)
Past service cost and curtailments	6	(7)	4	–	3
Settlement costs and transfers impact	–	1	–	(8)	(7)
Net interest on the net defined benefit asset/liability	(3)	(5)	(1)	(12)	(21)
Actuarial (losses)/gains	(11)	32	–	11	32
Adjustment for Indonesia scheme[1]	–	(4)	–	4	–
Exchange rate adjustment	(11)	(8)	–	(6)	(25)
Deficit at 31 December 2017[2]	(120)	(111)	(18)	(194)	(443)

1 During 2017 the Indonesian plan (with liabilities of $8 million) was partially funded with a Company contribution of $4 million. The scheme has moved from the unfunded to funded category in the tables

2 The deficit total of $443 million is made up of plans in deficit of $483 million (2016:$513 million) net of plans in surplus with assets totalling $40 million (2016: $18 million)

30. Retirement benefit obligations continued

Key assumptions continued

The Group's expected contribution to its defined benefit pension plans in 2019 is $112 million.

	31.12.18			31.12.17		
	Assets $million	Obligations $million	Total $million	Assets $million	Obligations $million	Total $million
At 1 January	2,592	(3,035)	(443)	2,260	(2,755)	(495)
Contributions[1]	144	(1)	143	144	(1)	143
Current service cost[2]	–	(67)	(67)	–	(73)	(73)
Past service cost and curtailments	–	(2)	(2)	–	3	3
Settlement costs	–	(1)	(1)	(14)	7	(7)
Interest cost on pension plan liabilities	–	(79)	(79)	–	(87)	(87)
Interest income on pension plan assets	68	–	68	66	–	66
Benefits paid out[2]	(168)	168	–	(152)	152	–
Actuarial (losses)/gains[3]	(113)	94	(19)	113	(81)	32
Exchange rate adjustment	(113)	127	14	175	(200)	(25)
At 31 December	2,410	(2,796)	(386)	2,592	(3,035)	(443)

1 Includes employee contributions of $1 million (31 December 2017: $1 million)

2 Includes administrative expenses paid out of plan assets of $2 million (31 December 2017: $1 million)

3 Actuarial gain on obligation comprises $114 million gain (31 December 2017: $81 million loss) from financial assumption changes, nil gain (31 December 2017: $30 million gain) from demographic assumption changes and $20 million loss (31 December 2017: $30 million gain) from experience

31. Share-based payments

Accounting policy

The Group operates equity-settled and cash-settled share-based compensation plans. The fair value of the employee services received in exchange for the grant of the options 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 2018 in respect of 2017 performance, which vest in 2019-2021, is recognised as an expense over the period from 1 January 2017 to the vesting dates in 2019-2021. 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 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 options that are expected to vest.

At each balance sheet date, the Group revises its estimates of the number of 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 a 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 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.

	31.12.18[1]			31.12.17[1]		
	Cash $million	Equity $million	Total $million	Cash $million	Equity $million	Total $million
Deferred share awards	3	89	92	14	71	85
Other share awards	(3)	77	74	9	58	67
Total share-based payments	–	166	166	23	129	152

1 No forfeiture assumed

31. Share-based payments continued

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 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
- Underpin shares are subject to a combination of two performance measures: EPS growth and RoRWA. The weighting between the two elements is split equally, one-half of the award depending on each measure, assessed independently. These awards vest after three or five years. Underpin shares formed part of the variable remuneration awarded to executive directors and senior management in respect of 2014 performance

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 three years.

Valuation – LTIP awards

The vesting of awards granted in both 2017 and 2018 is subject to the satisfaction of RoE (subject to a capital underpin) and relative TSR performance measures and achievement of a strategic scorecard. 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.

Dividend equivalents accrue on the 2017 awards during the vesting period, so no discount is applied. However, for the 2018 awards, no dividend equivalents accrue and the fair value takes this into account, calculated by reference to market consensus dividend yield.

	31.12.18	31.12.17
Grant date	**9 March**	13 March
Share price at grant date (£)	**7.78**	7.43
Vesting period (years)	**3-7**	3-7
Expected dividend yield (%)	**5.00**	N/A
Fair value (RoE) (£)	**2.59, 2.59**	2.48, 2.48
Fair value (TSR) (£)	**1.14, 1.11**	1.81, 1.38
Fair value (Strategic) (£)	**2.59, 2.59**	2.48, 2.48

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, the fair value of awards takes into account the lack of dividend equivalents, calculated by reference to market consensus dividend yield.

Deferred shares and underpin shares accrue dividend equivalent payments during the vesting period. Details of deferred, underpin and LTIP awards for executive directors can be found in the Directors' remuneration report.

31. Share-based payments continued

Deferred share awards

	31.12.18			
Grant date	**18 June**		**9 March**	
Share price at grant date (£)	**7.12**		**7.78**	
Vesting period	**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**

	31.12.17					
Grant date	15 June		15 June		13 March	
Share price at grant date (£)	7.56		7.69		7.43	
Vesting period	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)
1-3 years	N/A	7.56	N/A	7.69	N/A	7.43
1-5 years	–	–	–	–	N/A	7.43
3-7 years	–	–	–	–	N/A	7.43

Other restricted share awards

	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	**Expected dividend yield (%)**	**Fair value (£)**	**Expected dividend yield (%)**	**Fair value (£)**	**Expected dividend yield (%)**	**Fair value (£)**	**Expected dividend yield (%)**	**Fair value (£)**
6 months	**–**	**–**	**–**	**–**	**–**	**–**	**–**	
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**
6 years	**–**	**–**	**–**	**–**	**–**	**–**	**–**	

	31.12.17							
Grant date	29 November		3 October		15 June		13 March	
Share price at grant date (£)	7.43		7.56		7.69		7.43	
Vesting period	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)	Expected dividend yield (%)	Fair value (£)
6 months	–	–	–	–	–	–	–	7.43
1 year	–	7.43	–	7.56	–	7.69	–	7.43
2 years	–	7.43	–	7.56	0.5	7.61	0.5	7.35
2-3 years	–	–	–	–	–	–	1.9	7.08
3 years	1.6	7.08	1.6	7.21	2.1	7.23	2.1	6.99
4 years	2.2	6.80	2.2	6.92	2.5	6.96	2.5	6.72
5 years	2.4	6.58	2.4	6.70	–	–	–	–
6 years	2.6	6.36	2.6	6.47	–	–	–	–

31. Share-based payments continued

2001 Performance Share Plan (2001 PSP) – now closed to new grants:

The Group's previous plan for delivering performance shares was the 2001 PSP and there remain outstanding vested awards. Under the 2001 PSP half the award was dependent upon TSR performance and the balance was subject to a target of defined EPS growth. Both measures used the same three-year period and were assessed independently.

2006 Restricted Share Scheme (2006 RSS)/2007 Supplementary Restricted Share Scheme (2007 SRSS):

The Group's previous plans for delivering restricted shares were the 2006 RSS and 2007 SRSS, both now replaced by the 2011 Plan. There remain outstanding vested awards under these plans. Awards were generally in the form of nil cost options and did not have any performance measures. Generally deferred restricted share awards vested equally over three years and for non-deferred awards half vested two years after the date of grant and the balance after three years. No further awards will be granted under the 2006 RSS and 2007 SRSS.

2013 Sharesave Plan:

Under the 2013 Sharesave Plan, employees may open a savings contract. Within a 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 four 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)

	31.12.18	31.12.17
Grant date	2 October	3 October
Share price at grant date (£)	6.16	7.71
Exercise price (£)	5.13	6.20
Vesting period (years)	3	3
Expected volatility (%)	33.8	34.9
Expected option life (years)	3.33	3.33
Risk-free rate (%)	0.87	0.47
Expected dividend yield (%)	5.00	1.87
Fair value (£)	1.39	2.32

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.

Reconciliation of option 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 exercise price (£)
Outstanding as at 1 January	25,477,368	23,311,221	17,222	185,943	1,249	12,818,234	6.06
Granted[2,3]	2,481,485	13,649,191				4,769,917	5.13
Lapsed	(935,037)	(1,375,715)	(553)	(50,484)		(2,995,333)	7.36
Exercised	(20,483)	(8,971,717)	(12,399)	(135,459)	(1,249)	(868,457)	5.57
Outstanding as at 31 December	27,003,333	26,612,980	4,270	–	–	13,724,361	5.48
Exercisable as at 31 December	43,241	3,657,278	4,270	–	–	3,483,196	5.57
Range of exercise prices (£)[2]					–	5.13 – 6.20	
Intrinsic value of vested but not exercised options ($ million)	0.04	2.59	0.02	–	–	–	
Weighted average contractual remaining life (years)	7.43	8.18	0.48	0	0	2.04	
Weighted average share price for options exercised during the period (£)	7.18	7.17	6.76	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 75755 (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

31. Share-based payments continued

Reconciliation of option movements for the year to 31 December 2017

	2011 Plan[1]						
	Performance shares	Deferred/ restricted shares	PSP[1]	RSS[1]	SRSS[1]	Sharesave	Weighted average exercise price (£)
Outstanding as at 1 January	28,740,614	24,208,988	76,977	701,603	80,299	13,291,261	6.72
Granted[2,3]	2,347,184	12,066,323	–	–	–	3,097,250	6.20
Lapsed	(5,550,569)	(1,233,517)	(14,821)	(118,531)	(18,741)	(3,529,783)	8.67
Exercised	(59,861)	(11,730,573)	(44,934)	(397,129)	(60,309)	(40,494)	5.55
Outstanding as at 31 December	25,477,368	23,311,221	17,222	185,943	1,249	12,818,234	6.06
Exercisable as at 31 December	65,429	4,526,848	17,222	185,943	1,249	1,364,426	9.38
Range of exercise prices (£)[2]	–	–	–	–	–	5.30 -9.38	–
Intrinsic value of vested but not exercised options ($ million)	0.1	3.6	0.0	0.2	0.0	0.0	–
Weighted average contractual remaining life (years)	8.29	8.09	1.13	0.19	0.19	2.05	–
Weighted average share price for options exercised during the period (£)	7.44	7.43	7.73	7.43	7.35	7.62	–

1 Employees do not contribute towards the cost of these awards

2 For Sharesave granted in 2017 the exercise price is £6.20 per share, which was the average of the closing prices over the five days to the invitation date of 4 September. The closing share price on 1 September 2017 was £7.7390

3 Performance shares comprise 2,347,184 (LTIP) granted on 13 March 2017. Deferred/restricted shares comprise 10,055,740 (RSA/DRSA) granted on 13 March 2017, 366,830 (RSA/DRSA) granted on 15 June 2017, 871,760 (RSA) granted on 03 October 2017 and 771,993 (RSA) granted on 29 November 2017

32. 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, or 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. As at 31 December 2017, the Group did 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.

Impairment testing of investments in associates and joint arrangements is based on estimates including forecasting the expected cash flows from the investments 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.

32. Investments in subsidiary undertakings, joint ventures and associates continued

Accounting policy continued

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 17 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.

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	31.12.18 $million	31.12.17 $million
As at 1 January	**34,853**	33,853
Additions	**–**	1,000
As at 31 December	**34,853**	34,853

At 31 December 2018, 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, England and Wales	United Kingdom, Middle East, South Asia, Asia Pacific, Americas and, through Group companies, Africa	100
Standard Chartered Bank (China) Limited, China	China	100
Standard Chartered Bank (Hong Kong) Limited, Hong Kong	Hong Kong	100
Standard Chartered Bank Korea Limited, Korea	Korea	100
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 (Taiwan) Limited, Taiwan	Taiwan	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 40.

The Group does not have any material non-controlling interests in any of its subsidiaries except the 25.7 per cent non-controlling interests amounting to $108 million (31 December 2017: $105 million) in Standard Chartered Bank Kenya Limited. This contributes 3.2 per cent of the Group's Operating Profit and 0.4 per cent of the Group's assets.

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:

32. Investments in subsidiary undertakings, joint ventures and associates continued

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. At 31 December 2018, the total cash and balances with central banks was $58 billion (31 December 2017: $59 billion) of which $8 billion (31 December 2017: $10 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. Encumbered assets are disclosed in Risk review and Capital review (page 187).

Share of profit from investment in associates and joint ventures comprises:

	31.12.18 $million	31.12.17 $million
Profit from investment in joint ventures	**29**	29
Profit from investment in associates	**212**	239
Total	**241**	268

Interests in joint ventures

	31.12.18 $million	31.12.17 $million
As at 1 January	**783**	713
Exchange translation difference	**(49)**	(1)
Expected credit loss, net[1]	**(33)**	–
Additions	**–**	44
Share of profit	**29**	29
Disposals	**(11)**	–
Share of FVOCI and other reserves	**(2)**	(2)
As at 31 December	**717**	783

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 2017: 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 $26 million (31 December 2017: $29 million) and the Group's share of net assets was $717 million (31 December 2017: $775 million). On 16 February 2017, Permata announced plans for an IDR3 trillion (approximately $225 million) rights issue to drive growth. The Group invested an additional $44 million during 2017 as part of the rights issue. Permata is listed on the Indonesia Stock Exchange with a share price of IDR625 as at 31 December 2018 resulting in a share capitalisation value of the Group's investment of $540 million.

32. Investments in subsidiary undertakings, joint ventures and associates continued

Interests in joint ventures continued

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:

	31.12.18 $million	31.12.17 $million
Current assets	6,001	5,626
Non-current assets	4,439	5,193
Current liabilities	(8,342)	(8,415)
Non-current liabilities	(657)	(924)
Net assets	1,441	1,480
Operating income	517	641
Of which:		
Interest income	779	837
Interest expense	(399)	(447)
Expenses	(312)	(334)
Impairment	(117)	(224)
Operating profit	88	83
Taxation	(23)	(18)
Profit after tax	65	65
The financial statements of PT Bank Permata Tbk includes the following		
Cash and cash equivalents	1,445	1,207
Other comprehensive loss for the year	(8)	(5)
Total comprehensive income for the year	57	60

In December 2016 Permata established a portfolio of non-performing loans that were beyond its risk appetite which were to be liquidated. This resulted in an incremental impairment of $140 million, representing the difference between the carrying amount of the liquidation portfolio on a hold to collect basis and the amount expected to be realised upon liquidation. This is consistent with the Group's restructuring actions. Accordingly, in 2016 the Group has recorded its $62 million share of this incremental impairment as restructuring and this was normalised from the underlying results of the Group. In 2017 a gain of $59 million has been recognised in restructuring as a result of recoveries on these non-performing loans.

Current assets primarily represent cash and short-term receivable balances. Non-current assets are primarily loans to customers. Current liabilities are primarily customer deposits based on contractual maturities, while non-current liabilities are longer-term payables such as subordinated debt.

Reconciliation of the net assets above to the carrying amount of the investments in PT Bank Permata Tbk recognised in the consolidated financial statements:

	31.12.18 $million	31.12.17 $million
Net assets of PT Bank Permata Tbk	1,441	1,480
Proportion of the Group's ownership interest in joint ventures	642	659
Notional goodwill	108	116
Other adjustments[1]	(33)	–
Carrying amount of the Group's interest in PT Bank Permata Tbk	717	775

1 Relates to IFRS 9 transition adjustments

The Group's interest in Permata was tested for impairment. The recoverable amount is based on estimates including forecasting the expected cash flows from the investments and the discount rate used in calculation of the present values of those cash flows. At 31 December 2018, the recoverable amount of the interest in Permata exceeded its carrying amount, and no impairment provision was required.

32. Investments in subsidiary undertakings, joint ventures and associates continued

Interests in associates

	China Bohai Bank		Other		Total	
	31.12.18 $million	31.12.17 $million	**31.12.18 $million**	31.12.17 $million	**31.12.18 $million**	31.12.17 $million
As at 1 January	**1,489**	1,182	**35**	34	**1,524**	1,216
Exchange translation differences	**(95)**	96	**–**	–	**(95)**	96
Expected credit loss, net[1]	**(19)**	–	**–**	–	**(19)**	–
Share of profits	**205**	229	**7**	10	**212**	239
Disposals	**–**	–	**–**	37	**–**	37
Dividends received	**(64)**	–	**(3)**	(2)	**(67)**	(2)
Share of fair value through other comprehensive income/available-for-sale and Other reserves	**35**	(18)	**–**	(39)	**35**	(57)
Others	**–**	–	**–**	(5)[2]	**–**	(5)
As at 31 December	**1,551**	1,489	**39**	35	**1,590**	1,524

1 IFRS 9 transition impact from associates is reported here

2 Relates to Asia Commercial Bank disposed in 2017

A complete list of the Group's interest in associates is included in Note 40. The Group's principal associate is:

Associate	**Nature of activities**	**Main areas of operation**	**Group interest in ordinary share capital %**
China Bohai Bank	Banking	China	19.99

The Group's investment in China Bohai Bank is less than 20 per cent but it is considered to be an associate because of the significant influence the Group is able to exercise over the management and financial and operating policies. The Group applies the equity method of accounting for investments in associates. The reported financials up to November 2018 of this associate are within three months of the Group's reporting date.

The following table sets out the summarised financial statements of China Bohai Bank prior to the Group's share of the associates being applied:

	China Bohai Bank	
	30 Nov 2018 $million	30 Nov 2017 $million
Current assets	**62,212**	52,056
Non-current assets	**85,547**	104,479
Current liabilities	**(65,731)**	(82,293)
Non-current liabilities	**(74,269)**	(66,794)
Net assets	**7,759**	7,448
Operating income	**3,427**	3,854
Of which:		
Interest income	**6,699**	6,014
Interest expense	**(4,430)**	(3,452)
Expenses	**(1,273)**	(1,388)
Impairment	**(971)**	(1,056)
Operating profit	**1,183**	1,410
Taxation	**(160)**	(263)
Profit after tax	**1,023**	1,147
The financial statements of China Bohai bank include the following:		
Other comprehensive profit/(loss) for the year	**175**	(91)
Total comprehensive income for the year	**1,198**	1056

Non-current assets are primarily loans to customers and current liabilities are primarily customer deposits based on contractual maturities.

During the year, there were no indicators of impairment for the Group's investment in China Bohai Bank. The carrying value of the investment as of 31 December 2018 was $1,551 million (31 December 2017: $1,590 million).

33. 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.

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.

	31.12.18 $million	31.12.17 $million
Aircraft and ship leasing	**4,854**	5,494
Principal and other structured finance	**1,452**	2,534
Total	**6,306**	8,028

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.

	31.12.18					31.12.17				
	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	**1,094**	**–**	**72**	**247**	**1,413**	885	–	389	98	1,372
Loans and advances/investment securities at amortised cost	**2,556**	**1,403**	**252**	**190**	**4,401**	1,437	1,527	439	–	3,403
Investment securities (fair value through other comprehensive income/available-for-sale)	**3,812**	**–**	**–**	**–**	**3,812**	4,105	–	56	–	4,161
Other assets	**–**	**–**	**336**	**–**	**336**	–	–	19	–	19
Total assets	**7,462**	**1,403**	**660**	**437**	**9,962**	6,427	1,527	903	98	8,955
Off-balance sheet	**116**	**553**	**79**	**–**	**748**	86	501	262	–	849
Group's maximum exposure to loss	**7,578**	**1,956**	**739**	**437**	**10,710**	6,513	2,028	1,165	98	9,804
Total assets of structured entities	**205,837**	**2,785**	**3,395**	**11,872**	**223,889**	295,468	3,747	5,052	106	304,373

33. Structured entities continued

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 structured entities as set out in the Risk review and Capital review (page 174). 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 ABS 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. 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 the provision of aircraft leasing and ship finance
- **Principal Finance funds:** 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

34. Cash flow statement

Adjustment for non-cash items and other adjustments included within income statement

	Group		Company	
	31.12.18 $million	31.12.17 $million	**31.12.18 $million**	31.12.17 $million
Amortisation of discounts and premiums of investment securities	**(375)**	(292)	**–**	–
Interest expense on subordinated liabilities	**767**	748	**673**	563
Interest expense on senior debt securities in issue	**606**	465	**503**	381
Other non-cash items	**796**	541	**91**	63
Pension costs for defined benefit schemes	**81**	98	**–**	–
Share-based payment costs	**166**	152	**–**	–
Impairment losses on loans and advances and other credit risk provisions	**653**	1,362	**–**	–
Dividend income from subsidiaries	**–**	–	**(1,035)**	(392)
Other impairment	**182**	499	**–**	–
Net gain on derecognition of investment in associate	**–**	(64)	**–**	–
Profit from associates and joint ventures	**(241)**	(268)	**–**	–
Total	**2,635**	3,241	**232**	615

Change in operating assets

	Group		Company	
	31.12.18 $million	31.12.17 $million	**31.12.18 $million**	31.12.17 $million
Decrease in derivative financial instruments	**1,051**	19,246	**61**	459
Decrease/(Increase) in debt securities, treasury bills and equity shares held at fair value through profit or loss	**4,171**	(5,373)	**–**	–
Increase in loans and advances to banks and customers	**(16,883)**	(26,085)	**–**	–
Net increase in prepayments and accrued income	**(252)**	(19)	**–**	–
Net increase in other assets	**(924)**	(1,394)	**–**	–
Total	**(12,837)**	(13,625)	**61**	459

34. Cash flow statement continued

Change in operating liabilities

	Group		Company	
	31.12.18 $million	31.12.17 $million	31.12.18 $million	31.12.17 $million
(Decrease)/increase in derivative financial instruments	**(493)**	(18,405)	**636**	(1,049)
Net increase/(decrease) in deposits from banks, customer accounts, debt securities in issue, Hong Kong notes in circulation and short positions	**31,216**	23,877	**(22)**	1,599
Increase/(decrease) in accruals and deferred income	**3**	68	**6**	(7)
Net increase/(decrease) in other liabilities	**3,133**	279	**(1,082)**	32
Total	**33,859**	5,819	**(462)**	575

Disclosures

	Group		Company	
	31.12.18 $million	31.12.17 $million	31.12.18 $million	31.12.17 $million
Subordinated debt (including accrued interest):				
Opening balance	**17,550**	19,913	**14,109**	14,821
Proceeds from the issue	**500**	–	**500**	–
Interest paid	**(602)**	(743)	**(507)**	(353)
Repayment	**(2,097)**	(2,984)	**(474)**	(1,249)
Foreign exchange movements	**(220)**	701	**(237)**	536
Fair value changes	**(373)**	11	**(248)**	93
Other	**469**	652	**505**	261
Closing balance	**15,227**	17,550	**13,648**	14,109
Senior debt (including accrued interest):				
Opening balance	**19,738**	19,800	**16,307**	17,265
Proceeds from the issue	**9,766**	2,292	**4,552**	1,501
Interest paid	**(507)**	(896)	**(355)**	(825)
Repayment	**(7,030)**	(4,162)	**(3,141)**	(3,237)
Foreign exchange movements	**(347)**	882	**(199)**	659
Fair value changes	**(904)**	26	**(182)**	21
Other	**1,282**	1,796	**379**	923
Closing balance	**21,998**	19,738	**17,361**	16,307

35. 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	
	31.12.18 $million	31.12.17 $million	31.12.18 $million	31.12.17 $million
Cash and balances at central banks	**57,511**	58,864	**–**	–
Less: restricted balances	**(8,152)**	(9,761)	**–**	–
Treasury bills and other eligible bills	**15,393**	9,384	**–**	–
Loans and advances to banks	**30,449**	25,729	**–**	–
Trading securities	**2,299**	3,015	**–**	–
Amounts owed by and due to subsidiary undertakings	**–**	–	**17,606**	15,714
Total	**97,500**	87,231	**17,606**	15,714

Restricted balances comprise minimum balances required to be held at central banks.

36. Related party transactions

Directors and officers

Details of directors' remuneration and interests in shares are disclosed in the Directors' remuneration report.

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.

	31.12.18 $million	31.12.17 $million
Salaries, allowances and benefits in kind	33	35
Share-based payments	29	29
Bonuses paid or receivable	10	11
Total	72	75

Transactions with directors and others

At 31 December 2018, the total amounts to be disclosed under the Companies Act 2006 (the Act) and the Listing Rules of the Hong Kong Stock Exchange Limited (HK Listing Rules) about loans to directors were as follows:

	31.12.18		31.12.17	
	Number	$million	Number	$million
Directors	1	–	1	–

The loan transaction provided to the directors of Standard Chartered PLC was 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.

As at 31 December 2018, Standard Chartered Bank had created a charge over $83 million (31 December 2017: $75 million) of cash assets in favour of the independent trustee of its employer financed retirement benefit scheme.

Other than as disclosed in the Annual Report and Accounts, there were no other transactions, arrangements or agreements outstanding for any director, connected person or officer of the Company which have to be disclosed under the Act, the rules of the UK Listing Authority or the HK Listing Rules.

Company

The Company has received $953 million (31 December 2017: $848 million) of interest income from Standard Chartered Bank. The Company issues debt externally and lends proceeds to Group companies. At 31 December 2018, it had amounts due from Standard Chartered Bank of $14,380 million (31 December 2017: $12,580 million), derivative financial assets of $9 million (31 December 2017: $70 million) and $1,094 million derivative financial liabilities (31 December 2017: $492 million) with Standard Chartered Bank, amounts due from Standard Chartered Holdings Limited of $80 million (31 December 2017: $80 million). At 31 December 2018, it had amounts due from Standard Chartered IH Limited of $298 million (31 December 2017: $298 million).

The Company has an agreement with Standard Chartered Bank that in the event of Standard Chartered Bank defaulting on its debt coupon interest payments, where the terms of such debt requires it, the Company shall issue shares as settlement for non-payment of the coupon interest.

Associate and joint ventures

The following transactions with related parties are on an arm's-length basis.

	31.12.18				31.12.17		
	China Bohai Bank $million	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
Assets							
Loans and advances	–	22	58	–	–	50	95
Debt securities	–	–	–	–	–	27	–
Derivative assets	2	–	–	–	1	–	–
Total assets	2	22	58	–	1	77	95
Liabilities							
Deposits	266	–	35	11	219	–	29
Debt securities issued	–	–	–	–	15	–	–
Total liabilities	266	–	35	11	234	–	29
Total net income	6	–	6	–	5	–	6

37. Post balance sheet events

A final dividend for 2018 of 15 cents per ordinary share was declared by the directors after 31 December 2018.

On 21 February 2019 the Board of the Company approved an entity reorganisation in which it will acquire the direct ownership of Standard Chartered Bank (Hong Kong) Limited currently held by wholly owned subsidiary undertakings Standard Chartered Bank and Standard Chartered Holdings Limited. This common control transaction will have no financial impact on the consolidated accounts of the Group. In the Company only accounts, Investments in Subsidiaries will increase with a corresponding increase in equity being the dividend in specie utilised to achieve the reorganisation. The transaction is subject to Standard Chartered Bank and Standard Chartered Holdings Limited passing necessary resolutions for the dividends in specie and completing the necessary transfers, which are expected to be completed in March 2019.

38. 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.

	31.12.18 $million	31.12.17[1] $million
Audit fees for the Group statutory audit	**9.2**	9.4
Fees payable to KPMG for other services provided to the Group:		
Audit of Standard Chartered PLC subsidiaries	**8.3**	7.7
Total audit fees	**17.5**	17.1
Audit-related services	**7.0**	5.9
Other assurance services	**0.3**	0.2
Tax compliance and advisory services	**0.1**	0.3
Corporate finance services	**0.2**	0.5
Total fees payable	**25.1**	24.0

1 Prior year balances have been re-presented to align to current year categories

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

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 2018 were $0.6 million (2017: $0.9 million).

39. Standard Chartered PLC (Company)

Classification and measurement of financial instruments

Financial assets	31.12.18 Derivatives held for hedging $million	31.12.18 Amortised cost $million	31.12.18 Total $million	31.12.17 Derivatives held for hedging $million	31.12.17 Amortised cost $million	31.12.17 Total $million
Derivatives	9	–	9	70	–	70
Investment securities	–	11,537	11,537	–	12,159	12,159
Amounts owed by subsidiary undertakings	–	17,606	17,606	–	15,714	15,714
Total	9	29,143	29,152	70	27,873	27,943

There was no change to the classification, measurement or credit impairment of financial assets upon the transition to IFRS 9. The instruments classified as amortised cost will be recorded in stage 1.

Derivatives held for hedging are held at fair value and are classified as Level 2 while the counterparty is Standard Chartered Bank.

Debt securities comprise corporate securities issued by Standard Chartered Bank and have a fair value equal to carrying value of $11,537 million (31 December 2017: $12,159 million).

In 2018 and 2017, amounts owed by subsidiary undertakings have a fair value equal to carrying value.

Financial liabilities	31.12.18 Derivatives held for hedging $million	31.12.18 Amortised cost $million	31.12.18 Total $million	31.12.17 Derivatives held for hedging $million	31.12.17 Amortised cost $million	31.12.17 Total $million
Derivatives	1,128	–	1,128	492	–	492
Debt securities in issue	–	17,202	17,202	–	16,169	16,169
Subordinated liabilities and other borrowed funds	–	13,436	13,436	–	13,882	13,882
Total	1,128	30,638	31,766	492	30,051	30,543

Derivatives held for hedging are held at fair value and are classified as Level 2 while the counterparty is Standard Chartered Bank.

The fair value of debt securities in issue is $17,202 million (31 December 2017: $16,169 million) and have fair value equal to carrying value.

The fair value of subordinated liabilities and other borrowed funds is $13,043 million (31 December 2017: $14,314 million).

Derivative financial instruments

Derivatives	31.12.18 Notional principal amounts $million	31.12.18 Assets $million	31.12.18 Liabilities $million	31.12.17 Notional principal amounts $million	31.12.17 Assets $million	31.12.17 Liabilities $million
Foreign exchange derivative contracts:						
Currency swaps	6,864	–	818	8,038	59	300
Interest rate derivative contracts:						
Swaps	10,939	9	310	11,980	11	192
Total	17,803	9	1,128	20,018	70	492

Credit risk

Maximum exposure to credit risk

	31.12.18 $million	31.12.17 $million
Derivative financial instruments	9	70
Debt securities	11,537	12,159
Amounts owed by subsidiary undertakings	17,606	15,714
Total	29,152	27,943

In 2018 and 2017, amounts owed by subsidiary undertakings were neither past due nor impaired; the Company had no individually impaired loans.

In 2018 and 2017, the Company had no impaired debt securities. The debt securities held by the Group are issued by Standard Chartered Bank, a wholly owned subsidiary undertaking with credit ratings of A+/A/A1.

39. Standard Chartered PLC (Company) continued

Liquidity risk

The following table analyses the residual contractual maturity of the assets and liabilities of the Company on a discounted basis:

	31.12.18								
	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									
Derivative financial instruments	–	–	–	–	–	3	–	6	9
Investment securities	–	–	–	–	–	1,698	3,960	5,879	11,537
Amount owed by subsidiary undertakings	1,318	–	–	2,759	–	2,093	7,070	4,366	17,606
Investments in subsidiary undertakings	–	–	–	–	–	–	–	34,853	34,853
Other assets	–	–	–	–	–	–	–	–	–
Total assets	1,318	–	–	2,759	–	3,794	11,030	45,104	64,005
Liabilities									
Derivative financial instruments	83	–	–	9	–	260	324	452	1,128
Senior debt	1,031	–	–	2,731	–	2,079	5,402	5,959	17,202
Other liabilities	201	91	59	–	21	–	–	19	391
Subordinated liabilities and other borrowed funds	–	–	–	–	–	1,472	4,368	7,596	13,436
Total liabilities	1,315	91	59	2,740	21	3,811	10,094	14,026	32,157
Net liquidity gap	3	(91)	(59)	19	(21)	(17)	936	31,078	31,848

	31.12.17								
	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									
Derivative financial instruments	–	–	–	–	–	2	5	63	70
Investment securities	–	–	–	–	–	–	3,658	8,501	12,159
Amount owed by subsidiary undertakings	271	23	1,577	–	1,613	3,901	5,275	3,054	15,714
Investments in subsidiary undertakings	–	–	–	–	–	–	–	34,853	34,853
Other assets	–	–	–	–	–	–	–	3	3
Total assets	271	23	1,577	–	1,613	3,903	8,938	46,474	62,799
Liabilities									
Derivative financial instruments	–	–	2	–	–	19	283	188	492
Senior debt	–	–	1,326	–	1,499	3,826	4,671	4,847	16,169
Other liabilities	194	72	76	–	24	–	36	3	405
Subordinated liabilities and other borrowed funds	–	–	–	–	–	–	3,094	10,788	13,882
Total liabilities	194	72	1,404	–	1,523	3,845	8,084	15,826	30,948
Net liquidity gap	77	(49)	173	–	90	58	854	30,648	31,851

39. Standard Chartered PLC (Company) continued

Financial liabilities on an undiscounted basis

	31.12.18								
	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
Derivative financial instruments	**83**	**–**	**–**	**9**	**–**	**260**	**324**	**452**	**1,128**
Debt securities in issue	**1,031**	**7**	**172**	**2,765**	**241**	**2,408**	**6,175**	**6,633**	**19,432**
Subordinated liabilities and other borrowed funds	**–**	**–**	**221**	**–**	**362**	**2,055**	**5,975**	**12,789**	**21,402**
Other liabilities	**201**	**91**	**59**	**–**	**21**	**–**	**–**	**20**	**392**
Total liabilities	**1,315**	**98**	**452**	**2,774**	**624**	**4,723**	**12,474**	**19,894**	**42,354**

	31.12.17								
	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
Derivative financial instruments	–	–	2	–	–	18	284	188	492
Debt securities in issue	6	10	51	66	1,592	4,151	5,192	5,854	16,922
Subordinated liabilities and other borrowed funds	12	30	33	210	106	617	4,774	15,982	21,764
Other liabilities	192	72	76	–	24	–	36	–	400
Total liabilities	210	112	162	276	1,722	4,786	10,286	22,024	39,578

40. Related undertakings of the Group

As at 31 December 2018, the Group's interests in related undertakings is disclosed below. Unless otherwise stated, the share capital disclosed comprises ordinary or common shares which are held by subsidiaries of the Group. Note 32 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
FinVentures UK Limited	United Kingdom	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing (UK) Limited	United Kingdom	£1.00 Ordinary shares	100
SC (Secretaries) Limited	United Kingdom	£1.00 Ordinary shares	100
SC Leaseco Limited	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
SCMB Overseas Limited	United Kingdom	£0.10 Ordinary shares	100
Stanchart Nominees Limited[1]	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Africa Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered APR 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

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
Standard Chartered Health Trustee (UK) Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Holdings Limited[1]	United Kingdom	$2.00 Ordinary shares	100
Standard Chartered I H Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Leasing (UK) 2 Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Leasing (UK) 3 Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Leasing (UK) Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Masterbrand Licensing Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered NEA Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Nominees Limited[1]	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Nominees (Private Clients UK) Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Overseas Holdings Limited	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	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered UK Holdings Limited	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[2]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 2 LP[2]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 3 LP[2]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 4 LP[2]	United Kingdom	Limited Partnership interest	100
The BW Leasing Partnership 5 LP[2]	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[2]	United Kingdom	Limited Partnership interest	100
Bricks (C) LP[2]	United Kingdom	Limited Partnership interest	100
Bricks (M) LP	United Kingdom	Limited Partnership interest	100
Bricks (P) LP[2]	United Kingdom	Limited Partnership interest	100
Bricks (T) LP[2]	United Kingdom	Limited Partnership interest	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 S.A.	Angola	AOK6,475.62 Ordinary shares	60
The following company has the address of Level 5, 345 George St, Sydney NSW 2000, Australia			
Standard Chartered Grindlays Pty Limited	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	BWP1.00 Ordinary shares	100
Standard Chartered Investment Services (Proprietary) Limited	Botswana	BWP1.00 Ordinary shares	100
Standard Chartered Bank Botswana Limited	Botswana	BWP1.00 Ordinary shares	75.8
Standard Chartered Botswana Education Trust[3]	Botswana	Interest in trust	100
Standard Chartered Botswana Nominees (Proprietary) Limited	Botswana	BWP Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
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	Brazil	BRL 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	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 S.A	Cameroon	XAF10,000.00 shares	100
The following company has the address of 20 Adelaide Street, Suite 1105, Toronto ON M5C 2T6 Canada			
Standard Chartered (Canada) Limited	Canada	CAD1.00 Ordinary shares	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	Cayman Islands	$1,000.00 A Ordinary shares	100
		$1.00 Class X shares	100
The following company has the address of Cayman Corporate Centre, 27 Hospital Road, George Town, Grand Cayman KY1-9008, Cayman Islands			
Ocean Horizon Holdings South Ltd	Cayman Islands	$1.00 Ordinary 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	91
		$0.01 Preference shares	66.7
Standard Chartered Corporate Private Equity (Cayman) Limited	Cayman Islands	$0.001 Ordinary shares	100
Standard Chartered International Partners	Cayman Islands	$0.001 Ordinary shares	100
Standard Chartered Principal Finance (Cayman) Limited	Cayman Islands	$0.0001 Ordinary shares	100
Standard Chartered Private Equity (Cayman) Limited	Cayman Islands	$0.001 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	Cayman Islands	$1.00 Management shares	100
The following companies have 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
Standard Chartered Saadiq Mudarib Company Limited	Cayman Islands	$1.00 Ordinary shares	100
The following companies have the address of Unit 2 – 101, Building 3, Haifeng Logistics Park, No. 600 Luoyang Road, Tianjin, Dongjiang Free Trade Port Zone, China			
Pembroke Aircraft Leasing (Tianjin) Limited	China	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing Tianjin 1 Limited	China	CNY1.00 Ordinary shares	100
Pembroke Aircraft Leasing Tianjin 2 Limited	China	CNY1.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of Standard Chartered Tower, 201 Century Avenue, Pudong, Shanghai 200120, China			
Standard Chartered Bank (China) Limited	China	CNY Ordinary shares	100
The following company has the address of Unit 5, 12th Floor, Standard Chartered Tower, World Finance, No 1 East Third Ring Middle Road, Chaoyang District, Beijing 100020, China			
Standard Chartered Corporate Advisory Co. Ltd	China	$1.00 Ordinary shares	100
The following company has the address of No. 188 Yeshen Rd, 11F, A-1161 RM, Pudong New District, Shanghai 31201308, China			
Standard Chartered Trading (Shanghai) Limited	China	$15,000,000.00 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	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 Standard Chartered Bank France, 32 Rue de Monceau,75008, Paris, France			
Pembroke Lease France SAS	France	€1.00 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	74.9
The following company has the address of Taunusanlage 16, 60325, Frankfurt am Main, Germany			
Standard Chartered Bank AG	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	Guernsey	£1.00 Ordinary shares	100
The following company has the address of 15/F, Standard Chartered Tower, 388 Kwun Tong Road, Kwun Tong, Kowloon, Hong Kong			
Horsford Nominees Limited	Hong Kong	HKD Ordinary shares	100
The following companies have the address of 1401 Hutchison House, 10 Harcourt Road, Hong Kong			
Kozagi Limited	Hong Kong	HKD10.00 Ordinary shares	100
Majestic Legend Limited	Hong Kong	HKD1.00 Ordinary shares	100
Ori Private Limited	Hong Kong	$1.00 Ordinary shares	100
		$1.00 A Ordinary shares	90.8
Standard Chartered PF Real Estate (Hong Kong) Limited	Hong Kong	HKD10.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of 25/F, Standard Chartered Bank Building, 4-4A Des Voeux Road, Central, Hong Kong			
Marina Acacia Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Amaryllis Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Amethyst Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Ametrine Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Angelite Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Apollo Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Beryl Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Carnelian Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Emerald Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Flax Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Gloxinia Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Hazel Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Honor Shipping Limited	Hong Kong	HKD Ordinary shares	100
		$ Ordinary shares	100
Marina Ilex Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Iridot Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Kunzite Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Leasing Limited	Hong Kong	$ Ordinary shares	100
Marina Mimosa Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Moonstone Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Peridot Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Sapphire Shipping Limited	Hong Kong	$ Ordinary shares	100
Marina Splendor Shipping Limited	Hong Kong	HKD Ordinary shares	100
		$ Ordinary shares	100
Marina Tourmaline Shipping Limited	Hong Kong	$ Ordinary shares	100
SC Digital Solutions Limited	Hong Kong	HKD0.05 Ordinary shares	100
Standard Chartered Leasing Group Limited	Hong Kong	$ Ordinary shares	100
Standard Chartered Trade Support (HK) Limited	Hong Kong	HKD Ordinary shares	100
The following company has the address of 13/F, Standard Chartered Tower, 388 Kwun Tong Road, Kwun Tong, Kowloon, Hong Kong			
SC Learning Limited	Hong Kong	HKD Ordinary shares	100
The following company has the address of 2/F, Standard Chartered Bank Building, 4-4A Des Voeux Road, Central, Hong Kong			
Standard Chartered Private Equity Limited	Hong Kong	HKD1.00 Ordinary shares	100
		$1.00 Ordinary shares	100
The following company has the address of 13/F, Standard Chartered Bank Building, 4-4A Des Voeux Road, Central, Hong Kong			
Standard Chartered Trust (Hong Kong) Limited	Hong Kong	HKD10.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of 14/F, Standard Chartered Bank Building, 4-4A Des Voeux Road, Central, Hong Kong			
Standard Chartered Private Equity Managers (Hong Kong) Limited	Hong Kong	HKD Ordinary shares	100
The following company has the address of 15/F, Two International Finance Centre, No. 8 Finance Street, Central, Hong Kong			
Standard Chartered Securities (Hong Kong) Limited	Hong Kong	HKD Ordinary shares	100
The following company has the address of 21/F, Standard Chartered Tower, 388 Kwun Tong Road, Kwun Tong, Kowloon, Hong Kong			
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	Hong Kong	HKD Ordinary shares	100
Standard Chartered Bank (Hong Kong) Limited	Hong Kong	HKD A Ordinary shares	100
		HKD B Ordinary shares	100
		$ Preference shares	100
The following company has the address of L5 The Forum, Exchange Square, 8 Connaught Place,Central, Hong Kong			
Standard Chartered Global Trading Investments Limited	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	India	INR10.00 Equity 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	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	India	INR10.00 Ordinary shares	100
Standard Chartered Investments and Loans (India) Limited	India	INR10.00 Ordinary shares	100
St Helen's Nominees India Private Limited	India	INR10.00 Equity 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 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 companies have the address of Menara Standard Chartered, 7th floor, Jl. Prof. DR. Satrio No. 164, Jakarta, 12930, Indonesia			
PT. Price Solutions Indonesia	Indonesia	$100.00 Ordinary shares	100
PT Solusi Cakra Indonesia	Indonesia	IDR23,809,600.00 Ordinary shares	99

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of 32 Molesworth Street, Dublin 2, D02 Y512, Ireland			
Inishbrophy Leasing Limited	Ireland	€1.00 Ordinary shares	100
Inishcannon Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishcorky Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishcrean Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishdawson Leasing Limited	Ireland	€1.00 Ordinary shares	100
Inisherkin Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishgort Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishlynch Leasing Limited	Ireland	€1.00 Ordinary shares	100
Inishoo Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishquirk Leasing Limited	Ireland	$1.00 Ordinary shares	100
Inishtubrid Leasing Limited	Ireland	$1.00 Ordinary shares	100
Nightjar Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 1 Limited	Ireland	€1.00 Ordinary shares	100
Pembroke Aircraft Leasing 2 Limited	Ireland	€1.00 Ordinary shares	100
Pembroke Aircraft Leasing 3 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 4 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 5 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 6 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 7 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 8 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 9 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 10 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 11 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing 12 Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Aircraft Leasing Holdings Limited	Ireland	$1.00 Ordinary shares	100
Pembroke Capital Limited	Ireland	€1.25 Ordinary shares	100
		$1.00 Ordinary shares	100
Pembroke Capital Shannon Limited	Ireland	€1.25 Ordinary shares	100
Skua Limited	Ireland	$1.00 Ordinary shares	100
The following company has the address of First Names House, Victoria Road, Douglas, IM2 4DF, Isle of Man			
Pembroke Group Limited	Isle of Man	$0.01 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	Isle of Man	$1.00 Ordinary shares	100
		$1.00 Redeemable Preference shares	100
Standard Chartered Insurance Limited	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	Japan	JPY50,000 Ordinary shares	100
The following company has the address of Lime Grove House, Green Street, St Helier, JE1 2ST, Jersey			
Ocean Horizon Holdings East Limited	Jersey	$1.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of 4/F St Pauls Gate, 22-24 New Street, St Helier, JE1 4TR, Jersey			
Ocean Horizon Holdings West Limited	Jersey	$1.00 Ordinary shares	100
The following company has the address of 15 Castle Street, St Helier, JE4 8PT, Jersey			
SCB Nominees (CI) Limited	Jersey	$1.00 Ordinary shares	100
The following company has the address of IFC 5, St Helier, JE1 1ST, Jersey			
Standard Chartered Funding (Jersey) Limited[1]	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 companies have the address of M6-2701, West 27Fl, Suha-dong, 26, Eulji-ro 5-gil, Jung-gu, Seoul, Korea, Republic of			
Resolution Alliance Korea Ltd	Korea, Republic of	KRW5,000.00 Ordinary shares	100
The following company has the address of 2/F, 47 Jongno, Jongno-gu, Seoul, 110-702, Korea, Republic of			
Standard Chartered Bank Korea Limited	Korea, Republic of	KRW5,000.00 Ordinary shares	100
Standard Chartered Securities Korea Limited	Korea, Republic of	KRW5,000.00 Ordinary shares	100
The following companies have the address of 17/F, 100, Gongpyeong-dong, Jongno-gu, Seoul, Korea, Republic of			
SCPEK IV	Korea, Republic of	Limited Partnership interest	41.4
Standard Chartered Private Equity Korea II	Korea, Republic of	KRW1,000,000.00 Partnership interest	100
Standard Chartered Private Equity Managers (Korea) Limited	Korea, Republic of	KRW5,000.00 Ordinary shares	100
SW Holdings Limited	Korea, Republic of	KRW1,000.00 Ordinary shares	100
TBO Korea Holdings Limited	Korea, Republic of	KRW1,000.00 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	RM10.00 Ordinary shares	100
Cartaban Nominees (Asing) Sdn Bhd	Malaysia	RM1.00 Ordinary shares	100
Cartaban Nominees (Tempatan) Sdn Bhd	Malaysia	RM1.00 Ordinary shares	100
Golden Maestro Sdn Bhd	Malaysia	RM1.00 Ordinary shares	100
Popular Ambience Sdn Bhd	Malaysia	RM1.00 Ordinary shares	100
Price Solutions Sdn Bhd	Malaysia	RM1.00 Ordinary shares	100
SCBMB Trustee Berhad	Malaysia	RM10.00 Ordinary shares	100
Standard Chartered Bank Malaysia Berhad	Malaysia	RM0.10 Irredeemable Cumulative Preference shares	100
		RM1.00 Ordinary shares	100
Standard Chartered Saadiq Berhad	Malaysia	RM1.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of Brumby Centre, Lot 42, Jalan Muhibbah, 87000 Labuan F.T., Malaysia			
Marina Morganite Shipping Limited	Malaysia	$ Ordinary shares	100
Marina Moss Shipping Limited	Malaysia	$1.00 Ordinary shares	100
Marina Tanzanite Shipping Limited	Malaysia	$ Ordinary shares	100
Pembroke Leasing (Labuan) 2 Berhad	Malaysia	$1.00 Ordinary shares	100
Pembroke Leasing (Labuan) 3 Berhad	Malaysia	$1.00 Ordinary shares	100
Pembroke Leasing (Labuan) Pte Limited	Malaysia	$1.00 Ordinary shares	100
The following company has the address of N8, Jalan Kerinchi, 59200 Kuala Lumpur, Wilayah Persekutuan, Malaysia			
Resolution Alliance Sdn Bhd[2]	Malaysia	RM1.00 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	Malaysia	RM1.00 Ordinary shares	100
The following companies have the address of Trust Company Complex, Ajeltake Road, Ajeltake Island, Majuro, MH96960, Marshall Islands			
Marina Alysse Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Amandier Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Ambroisee Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Angelica Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Aquamarine Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Aventurine Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Buxus Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Celsie Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Citrine Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Dahlia Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Dittany Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Dorado Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Lilac Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Lolite Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Obsidian Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Pissenlet Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Poseidon Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Protea Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Quartz Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Remora Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Turquoise Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Zeus Shipping Limited	Marshall Islands	$1.00 Ordinary shares	100
Marina Zircon Shipping Limited	Marshall Islands	$1.00 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	Class A $1.00 Ordinary shares	100
		Class B $1.00 Ordinary shares	100
Actis Place Holdings (Mauritius) Limited[2]	Mauritius	Class A $1.00 Ordinary shares	62
		Class B $1.00 Ordinary shares	62
Actis Treit Holdings (Mauritius) Limited[2]	Mauritius	Class A $1.00 Ordinary shares	62
		Class B $1.00 Ordinary shares	62

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of 6/F, Standard Chartered Tower, 19, Bank Street, Cybercity, Ebene, 72201, Mauritius			
Standard Chartered Bank (Mauritius) Limited	Mauritius	$10.00 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	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	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	Nepal	NPR100.00 Ordinary shares	70.2
The following companies have the address of Hoogoorddreef 15, 1101 BA, Amsterdam, Netherlands			
Pembroke B717 Holdings B.V.	Netherlands	€1.00 Ordinary shares	100
Pembroke Holland B.V.	Netherlands	€450.00 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
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 3/F Main SCB Building, I.I Chundrigar Road, Karachi, Sindh, 74000, Pakistan			
Price Solution Pakistan (Private) Limited[1]	Pakistan	PKR10.00 Ordinary shares	100
The following company has the address of P.O. Box No. 5556I.I. Chundrigar Road, Karachi, 74000, Pakistan			
Standard Chartered Bank (Pakistan) Limited	Pakistan	PKR10.00 Ordinary shares	100
The following company has the address of ul. Towarowa 25A, 00-869 Warszawa, Poland			
Standard Chartered Global Business Services spólka z ograniczona odpowiedzialnoscia	Poland	PLN50.00 Ordinary shares	100
The following company has the address of Offshore Chambers, PO Box 217, Apia, Western Samoa			
Standard Chartered Nominees (Western Samoa) Limited	Samoa	$1.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
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)	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 8 Marina Boulevard, Level 23, Marina Bay Financial Centre, Tower 1, 018981, Singapore			
Actis Mahi Holdings (Singapore) Private Limited	Singapore	SGD 1.00 Ordinary shares	100
Actis Place Holdings No.1 (Singapore) Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis Place Holdings No.2 (Singapore) Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis RE Investment 1 Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis RE Investment 2 Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis RE Investment 3 Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis RE Investment 4 Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis Treit Holdings No.1 (Singapore) Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Actis Treit Holdings No.2 (Singapore) Private Limited[2]	Singapore	SGD 1.00 Ordinary shares	100
Augusta Viet Pte. Ltd.	Singapore	$1.00 Ordinary shares	100
Greenman Pte. Ltd.	Singapore	SGD1.00 Class A Preferred shares	100
		SGD1.00 Class B Preferred shares	100
		SGD1.00 Ordinary shares	100
Standard Chartered PF Managers Pte. Limited	Singapore	$1.00 Ordinary shares	100
Standard Chartered Private Equity (Singapore) Pte. Ltd	Singapore	$ Ordinary shares	100
Standard Chartered Private Equity Managers (Singapore) Pte. Ltd	Singapore	$ Ordinary shares	100
Standard Chartered Real Estate Investment Holdings (Singapore) Private Limited	Singapore	SGD1.00 Ordinary shares	100
The following companies have the address of 8 Marina Boulevard, Level 26, Marina Bay Financial Centre, Tower 1, 018981, Singapore			
Marina Aquata Shipping Pte. Ltd.	Singapore	$ Ordinary shares	100
Marina Aruana Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
		$ Ordinary shares	100
Marina Aster Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
Marina Cobia Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
		$ Ordinary shares	100
Marina Daffodil Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
Marina Fatmarini Shipping Pte. Ltd.	Singapore	$ Ordinary shares	100
Marina Frabandari Shipping Pte. Ltd.	Singapore	$ Ordinary shares	100
Marina Freesia Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
Marina Gerbera Shipping Pte. Ltd.	Singapore	$ Ordinary shares	100
Marina Mars Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
Marina Mercury Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
Marina Opah Shipping Pte. Ltd.	Singapore	SGD Ordinary shares	100
		$ Ordinary shares	100
Marina Partawati Shipping Pte. Ltd.	Singapore	$ Ordinary shares	100
Marina Poise Shipping Pte. Ltd.	Singapore	$ Ordinary shares	100
The following companies have the address of 231A Pandan Loop,128419, Singapore			
Phoon Huat Pte. Ltd.	Singapore	SGD1.00 Ordinary shares	70
Redman Pte. Ltd.	Singapore	SGD1.00 Ordinary shares	70

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
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 (2000) Limited	Singapore	SGD1.00 Ordinary shares	100
Standard Chartered Bank (Singapore) Limited	Singapore	SGD Ordinary shares	100
		SGD Preference shares	100
		$ Ordinary shares	100
Standard Chartered Trust (Singapore) Limited	Singapore	SGD Ordinary shares	100
Standard Chartered Holdings (Singapore) Private Limited	Singapore	SGD Ordinary shares	100
		$ Ordinary shares	100
The following company has 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	Singapore	$1.00 Ordinary shares	50
The following company has the address of 9 Battery Road, #15-01 Straits Trading Building, 049910, Singapore			
Standard Chartered Nominees (Singapore) Pte Ltd	Singapore	SGD1.00 Ordinary shares	100
The following companies have the address of 5/F, 4 Sandown Valley Crescent, Sandton, Gauteng, 2196, South Africa			
CMB Nominees Proprietary Limited	South Africa	ZAR1.00 Ordinary shares	100
Standard Chartered Nominees South Africa Proprietary Limited (RF)	South Africa	ZAR Ordinary shares	100
The following company has the address of 1, 2, 4, 7, 9, 10F, No. 168/170 &, 8F, 12F, No.168, Tun Hwa N. Rd., Songshan Dist., Taipei, 105, Taiwan			
Standard Chartered Bank (Taiwan) Limited	Taiwan	TWD10.00 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	Thailand	THB10.00 Ordinary shares	100
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	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	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	United States	$1.00 Ordinary shares	100

40. Related undertakings of the Group continued

Subsidiary undertakings continued

Name and registered address	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of Corporation Trust Centre, 1209 Orange Street, Wilmington DE 19801, United States			
Standard Chartered Holdings Inc.	United States	$100.00 Common shares	100
StanChart Securities International LLC	United States	Membership interest	100
Standard Chartered Capital Management (Jersey), LLC	United States	Membership interest	100
Standard Chartered Securities (North America) 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 251 Little Falls Drive, Wilmington, Delaware 19808, USA			
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	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			
Standard Chartered Bank Zambia Plc	Zambia	ZMW0.25 Ordinary shares	90
Standard Chartered Zambia Securities Services Nominees Limited	Zambia	ZMK1.00 Ordinary shares	100
The following companies have the address of Africa Unity Square Building, 68 Nelson Mandela Avenue, Harare, Zimbabwe			
Africa Enterprise Network Trust[3]	Zimbabwe	Interest in Trust	100
Standard Chartered Asset Management Limited	Zimbabwe	$0.001 Ordinary shares	100
Standard Chartered Bank Zimbabwe Limited	Zimbabwe	$1.00 Ordinary shares	100
Standard Chartered Nominees Zimbabwe (Private) Limited	Zimbabwe	$2.00 Ordinary shares	100

1 Directly held by parent company of the Group

2 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 Notes 32 and 33 for the consolidation policy and disclosure of the undertaking.

3 No share capital by virtue of being a trust

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	Indonesia	IDR125.00 B shares	44.6
The following company has the address of 100/36 Sathorn Nakorn Tower, Fl 21 North Sathorn Road, Silom Sub-District, Bangrak District, Bangkok, 10500, Thailand			
Resolution Alliance Limited	Thailand	THB10.00 Ordinary shares	49

40. Related undertakings of the Group continued

Associates

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of Bohai Bank Building, No.218 Hai He Dong Lu, Hedong District, Tianjin, China, 300012, China			
China Bohai Bank Co. Ltd	China	CNY Ordinary shares	19.99
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	United Kingdom	Membership interest	25
The following company has the address of Walker House, 87 Mary Street, George Town, KY1-9005, Cayman Islands			
Asia Trading Holdings Limited	Cayman Islands	$0.01 Ordinary shares	50
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
Standard Chartered IL&FS Asia Infrastructure Growth Fund, L.P.	Cayman Islands	Partnership interest	38.6
The following companies have the address of 190 Elgin Avenue, George Town, Grand Cayman, KY1-9005, Cayman Islands			
Greathorse Chemical Limited	Cayman Islands	$1.00 Ordinary shares	32.95
Hygienic Group	Cayman Islands	$0.01 Redeemable Exchangeable Preferred shares	29.32
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 company has the address of Nerine House, St George's Place, St Peter Port, GY1 3ZG, Guernsey			
Stonehage Fleming Family and Partners Ltd	Guernsey	£0.01 Class B shares	9.2
		£0.01 Class DC shares	20.2

40. Related undertakings of the Group continued

Significant investment holdings and other related undertakings continued

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
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	39.69
		$ Class B shares	39.69
Actis Jack Holdings (HK) Limited	Hong Kong	$ Class A shares	39.69
		$ Class B shares	39.69
Actis Rivendell Holdings (HK) Limited	Hong Kong	$ Class A shares	39.69
		$ Class B shares	39.69
Actis Temple Stay Holdings (HK) Limited	Hong Kong	$ Class A shares	39.69
		$ Class B shares	39.69
Actis Young City Holdings (HK) Limited	Hong Kong	$ Class A shares	39.69
		$ Class B shares	39.69
The following company has the address of Off CTS No. 216, Village Bandivali, Patel Estate, S. V. road, Jogeshwari (W) Mumbai City, 400102, India			
Hitodi Infrastructure Limited	India	Cumulative Redeemable Preference shares	100
The following company has the address of 70, Nagindas Master Road, Fort, Mumbai, 400023, India			
Joyville Shapoorji Housing Private Limited	India	INR10.00 Common Equity shares	25.8
The following company has the address of 5/F, Mahindra Towers, Worli, Mumbai, 400018, India			
Mahindra Homes Private Limited	India	INR10.00 Compulsorily Convertible Preference shares	100
		INR10.00 A Ordinary shares	25
		INR10.00 B Ordinary shares	100
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 No. 1, Kanagam Village, 10/F IITM Research Park, Taramani, Chennai – 600113, Tamil Nadu, India			
Northern Arc Capital Limited	India	INR20.00 Compulsorily Convertible Preference shares	33.5
		INR10.00 Equity shares	4.6
The following company has the address of E-78, South Extension Part-I, New Delhi, 110049, India			
Tek Travels Private Limited	India	INR10.00 Ordinary shares	49.99
The following company has the address of Graha Paramita, 3/F, Jalan Denpasar, Raya Block D-2, Kav. 8, Kuningan, Jakarta, 12940, Indonesia			
PT Travira Air	Indonesia	IDR1,000,000.00 Ordinary shares	30
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	$100.00 Ordinary shares	20
Standard Topaz Limited	Jersey	$1,000.00 Ordinary shares	20

40. Related undertakings of the Group continued

Significant investment holdings and other related undertakings continued

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of 146-8 Chusa-ro Sinam-myeon, Yesan-gun Chungnam, Korea, Republic of			
Daiyang Metal Company Ltd	Korea, Republic of	KRW 500 Ordinary shares	23.1
		KRW 500 Preferred shares	100
		KRW 500 Convertible Preference shares	100
The following companies have the address of 185 Seongnaecheon-ro Songpa-gu Seoul Korea, Republic of			
Haram Trade Co.Ltd.	Korea, Republic of	KRW 1,000,000,000 Ordinary shares	45
		KRW 1,000,000,000 redeemable convertible preferred shares	100
Maesong Trading Co.Ltd.	Korea, Republic of	KRW 1,000,000,000 Ordinary shares	45
		KRW 1,000,000,000 redeemable convertible preferred shares	100
Sameun Trade Co. Ltd.	Korea, Republic of	KRW 500,000,000 Ordinary shares	34.62
		KRW 500,000,000 redeemable convertible preferred shares	100
Sunwoo MT Co., Ltd.	Korea, Republic of	KRW 10,000,000,000 Ordinary shares	45
		KRW 10,000,000,000 redeemable convertible preferred shares	100
The following company has the address of 2615 Nambusoonhwan-ro, Gangnam-gu, Seoul, Korea, Republic of			
Taebong Prime Co. Ltd	Korea, Republic of	KRW 10,000,000,000 Ordinary shares	45
		KRW 10,000,000,000 redeemable convertible preferred shares	100
The following company has the address of 17/F (Gongpyung-dong), 110, Jongno-gu, Seoul, Korea, Republic of			
Standard Chartered Private Equity Korea III	Korea, Republic of	KRW1,000,000.00 Ordinary shares	31
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	Malaysia	RM1.00 Ordinary shares	25
The following company has the address of 180B Bencoolen Street, #11-00 The Bencoolen, Singapore, 189648, Singapore			
Crystal Jade Group Holdings Pte Ltd	Singapore	$ Ordinary shares	42.6
The following company has the address of Blk 10, Kaki Bukit Avenue 1, #07-05 Kaki Bukitr Industrial Estate, 417492, Singapore			
MMI Technoventures Pte Ltd	Singapore	SGD Ordinary shares	50
		SGD 0.01 Redeemable Preference shares	50
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 81 Ubi Avenue 4, #03-11 UB One, 408830, Singapore			
Polaris Limited	Singapore	SGD Ordinary shares	25.8
The following company has the address of 80 Raffles Place, #32-01, UOB Plaza 1, 048624, Singapore			
THSC Investments Pte. Ltd.	Singapore	SGD0.50 Ordinary Shares	29.2
The following company has the address of EADB Building, Plot 4 Nile Avenue, PO Box 7128, Kampala, Uganda			
East African Development Bank	Uganda	$13,500.00 Class B shares	24.5

40. Related undertakings of the Group continued

Significant investment holdings and other related undertakings continued

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
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
The following company has the address of Floor 7, Samco Building, No. 326 Vo Van Kiet, Co Giang Ward, District 1, Ho Chi Minh City, Vietnam			
New Lifestyle Service Corporation	Vietnam	VND Dividend Preference shares	100
		VND Redeemable Preference shares	100
The following company has the address of Floor M, Petroland Building, 12 Tan Trao, Tan Phu Ward, District 7, Ho Chi Minh City, Vietnam			
Online Mobile Services Joint Stock Company	Vietnam	VND10,000 Class A1 Redeemable Preference shares	100
		VND10,000 Class A1 Dividend Preference shares	100
		VND10,000 Class C Dividend Preference shares	28.5
The following company has the address of PO Box 957, Offshore Incorporations Centre,, Road Town, Tortola, BVI, Virgin Islands, British			
Ecoplast Technologies Inc	Virgin Islands, British	$0.0001 Class C Preferred shares	100

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 Overseas Investments Limited	United Kingdom	AUD1.00 Ordinary shares	100
		$1.00 Ordinary shares	100
Standard Chartered Capital Markets Limited	United Kingdom	£1.00 Ordinary shares	100
		$1.00 Ordinary shares	100
Standard Chartered Debt Trading Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered (GCT) Limited	United Kingdom	£1.00 Ordinary shares	100
Compass Estates Limited	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	Hong Kong	$ Ordinary shares	100

40. Related undertakings of the Group continued

In liquidation continued

Subsidiary undertakings continued

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of 32 Molesworth Street, Dublin 2, D02 Y512, Ireland			
Pembroke 7006 Leasing Limited	Ireland	€1.25 Ordinary shares	100
Pembroke Alpha Limited	Ireland	€1.00 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.	Luxembourg	€25.00 Ordinary shares	100
The following companies have 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 company has the address of Jiron Huascar 2055, Jesus Maria, Lima 15072, Peru			
Banco Standard Chartered en Liquidacion	Peru	$75.133 Ordinary shares	100
The following company has the address of Quai du General Guisan 38, 8022, Zurich, Switzerland, Switzerland			
Standard Chartered Bank (Switzerland) S.A.	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)	Taiwan	TWD1,000.00 Ordinary shares	97.9
The following company has the address of 100/3, Sathorn Nakorn Tower, 3rd Floor, North Sathorn Road, Silom, Bangrak, Bangkok, 10500, Thailand			
Standard Chartered (Thailand) Company Limited	Thailand	THB10.00 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.	Uruguay	UYU1.00 Ordinary shares	100

Joint ventures

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
The following companies have the address of 32 Molesworth St, Dublin 2, D02 Y512, Ireland			
Canas Leasing Limited	Ireland	$1 Ordinary shares	50
Elviria Leasing Limited	Ireland	$1 Ordinary shares	50

Associates

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
The following company has the address of Quadrant House, 4 Thomas More Square, London, E1W 1YW, United Kingdom			
MCashback Limited	United Kingdom	£0.01 Ordinary shares	31.7

40. Related undertakings of the Group continued

Liquidated/dissolved/sold

Subsidiary undertakings

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
St. Helens Nominees Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Corporate Finance (Canada) Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Corporate Finance (Eurasia) Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered (CT) Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Equitor Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Financial Investments Limited	United Kingdom	£1.00 Ordinary A Shares	100
Standard Chartered Portfolio Trading (UK) Limited	United Kingdom	£1.00 Ordinary shares	100
Standard Chartered Receivables (UK) Limited	United Kingdom	$1.00 Ordinary shares	100
Standard Chartered Participacoes E Assessoria Economica Ltda	Brazil	BRL0.51 Common shares	100
SCL Consulting (Shanghai) Co. Ltd	China	$ Ordinary shares	100
Double Wings Limited	Hong Kong	HKD1.00 Ordinary shares	100
GE Capital (Hong Kong) Limited	Hong Kong	HKD10.00 Ordinary shares	100
Rivendell Private Limited	Hong Kong	$1.00 A Ordinary shares	84.8
Union Town Limited	Hong Kong	HKD1.00 Ordinary shares	100
Standard Chartered Bank Mozambique, S.A.	Mozambique	$1.00 Ordinary shares	100
Standard Chartered Investments (Singapore) Private Limited	Singapore	$ Ordinary shares	100
Prime Financial Holdings Limited	Singapore	SGD Ordinary shares	100
		$ Ordinary shares	100
Standard Chartered Securities (Singapore) Pte. Limited	Singapore	SGD Ordinary shares	100
Thai Exclusive Leasing Company Limited	Thailand	THB10.00 Ordinary shares	100
California Rose Limited	Virgin Islands, British	$1.00 Ordinary shares	90.5
Earnest Range Limited	Virgin Islands, British	$1.00 Ordinary shares	90.5

Significant investment holdings and other related undertakings

Name	Country of incorporation	Description of shares	Proportion of shares held (%)
Chayora Holdings Limited	Cayman Islands	$0.01 Series B Preferred Shares	100
Ningbo Xingxin Real Estate Development Co.,Ltd*	China	CNY1.00 Registered Capital	60
Fast Great Investment Limited	Hong Kong	HKD1.00 Ordinary shares	28
Standard Latitude Consultancy (HK) Limited	Hong Kong	$5,000 Ordinary shares	20
Fountain Valley PFV Limited	Korea, Republic of	KRW5,000.00 Ordinary shares	47.3
Lotus PFV Co. Ltd	Korea, Republic of	KRW5,000.00 Ordinary shares	50
Smoothie King Holdings, Inc.	Korea, Republic of	KRW5,000.00 Ordinary shares	20.3
Maxpower Group Pte Ltd	Singapore	Redeemable Preference shares	100
		SGD Warrants	100

41. Transition to IFRS 9 Financial Instruments

Accounting policies applied to financial instruments prior to 1 January 2018.

Impairment of financial instruments

Impairment of financial instruments is performed on an incurred loss basis, when there is objective evidence of impairment.

The Group assesses at each balance sheet date whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events occurring after the initial recognition of the asset (a loss event), and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Impairment of loans and receivables and held-to-maturity financial instruments.

Corporate & Institutional Banking and Commercial Banking

The assessment of the credit risk of corporate and commercial loans is done by the Credit Risk department, based upon counterparty information they receive from various sources including relationship managers and on external market information, or as soon as payment of interest or principal is 90 days overdue.

Once a loan starts to exhibit credit deterioration, it will move along the credit grading scale in the performing book and when it is classified as Credit Grade (CG) 12, the credit assessment and oversight of the loan will be performed by Group Special Asset Management (GSAM).

Where GSAM's assessment indicates that a loan is impaired, GSAM will calculate an Individual Impairment Provision (IIP) based on estimated cash flows revised to reflect anticipated recoveries. GSAM's assessment and calculation of impairment involves a significant level of judgement.

If there is objective evidence that an impairment loss on a loan and receivable or a held-to-maturity asset has occurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred), discounted at the asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognised in the income statement. If a loan and receivable or held-to-maturity asset has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

The individual circumstances of each client are taken into account when GSAM estimates future cash flows. 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.

The calculation of the present value of the estimated future cash flows of a collateralised financial asset reflects the cash flows that may result from foreclosure, less costs for obtaining and selling the collateral, whether or not foreclosure is probable.

In cases where the impairment assessment indicates that there will be a loss of principal, the loan is graded CG14 while other impaired loans will be graded CG13. Loans graded CG13–CG14 are classified as non-performing loans.

The performing loan portfolio is subject to a Portfolio Impairment Provision (PIP) to cover latent losses i.e. those that are not specifically identified but are known, by experience, to be present in any performing portfolio. The PIP is based on models using risk sizing (including probability of default and loss given default), environmental parameters and exceptional adjustment overlays. The calculation of the PIP uses regulatory expected credit loss (ECL) models. ECL is subject to an emergence risk factor that is generally understood as the hypothetical amount of time between a loss event occurrence and the bank recognition of impairment. The emergence risk factor is the principal means of translating a risk position to an impairment estimate, and the main scaling factor to adjust the conservative regulatory expected loss to an effective PIP level, as the regulatory ECL models are more punitive than the incurred loss model under IAS 39. On a portfolio basis, the emergence risk factor ranges between two and three months based on structural economic drivers that might influence the accurate and timely discovery of credit issues in each country.

Retail Banking

An IIP is recognised for Retail Banking when an account meets a defined threshold condition in terms of overdue payments ('contractual default') or meets other objective conditions (such as bankruptcy, debt restructuring, fraud or death) as further described above in the assessment factors. The threshold conditions 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.

A credit obligation in Retail Banking clients portfolio that is more than 150 Days Past Due (DPD) or, a credit obligation secured by Wealth Management products that is 90DPD, is recognised as 'impaired' and IIP is provided for accordingly. There are, however, exceptions to this rule for portfolios where empirical evidence suggests that they should be set more conservatively. In addition, the credit account is recognised as 'impaired' immediately if the borrower files for bankruptcy or other equivalent forbearance programme, or the borrower is deceased, or the business is closed in the case of small business clients, or the borrower's other credit accounts with the Group are impaired. The core components of the IIP calculation are the value of gross charge-off and recoveries. Gross charge-off and/or provisions are recognised when it is established that the account is unlikely to pay. Recovery of unsecured debt post-impairment is recognised based on actual cash collected, either directly from clients or through the sale of defaulted loans to third-party institutions. Provision release of secured loans post-impairment 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), or the loan is paid to current and remains in current for more than 180 days (release of full provision).

41. Transition to IFRS 9 Financial Instruments continued

Retail Banking continued

Retail Banking PIP, covering the inherent losses in the portfolio that exist at the balance sheet date but have not been individually identified, is computed on performing loans (no IIP), using Expected Loss (EL) rates, to determine latent losses in the portfolio. The EL utilises probability of default and loss given default inherent within the portfolio of impaired loans or receivables and the historical loss experience for assets with credit risk characteristics similar to those in the Group. For defaulted yet non-impaired accounts (greater than 90 days past due) full EL is used, while for non-defaulted accounts, a three month emergence period is applied. An adjustment is added to the PIP calculation to take into the account instances where the EL-based PIP is deemed imprecise due to under-prediction or over-prediction of EL by underlying models. An overlay in the form of Special Risk Adjustment (SRA) is added to the EL-based PIP calculation to take into account instances where EL-based PIP is deemed insufficient to incorporate the impact of a specific credit event. An overlay in the form of Business Cycle Adjustment (BCA) is taken to account for the impact of cyclical volatility in the operating environment, which is not adequately covered in the underlying models.

Impairment of available-for-sale financial instruments

Where objective evidence of impairment exists for available-for-sale financial assets, the cumulative loss (measured as the difference between the amortised cost and the current fair value, less any impairment loss on that financial asset previously recognised in the income statement) is reclassified from equity and recognised in the income statement.

Classification and measurement of financial instruments

The Group classifies its financial assets into the following measurement categories: financial assets held at fair value through profit or loss; loans and receivables; held-to-maturity; or available-for-sale.

Financial liabilities are classified as either held at fair value through profit or loss or at amortised cost.

Management determines the classification of its financial assets and liabilities at initial recognition.

The following details the approach for the categories:

a) Financial assets and liabilities held at fair value through profit or loss: This category has two sub-categories:

- Financial assets and liabilities held for trading: A financial asset or liability is classified as held for trading if acquired principally for the purpose of selling in the short term, or forms part of a portfolio of financial instruments which are managed together and for which there is evidence of short-term profit-taking or is a derivative (excluding qualifying hedging relationships)
- 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 (for example, the Group may designate certain fixed rate loans and receivables that are managed with derivative interest rate swaps)
- A group of financial assets and/or liabilities is managed and its performance evaluated on a fair value basis (for example, the Group may designate issued debt to fund a portfolio of trading assets and liabilities that are all managed on a fair value basis)
- The assets or liabilities include embedded derivatives and such derivatives are required to be recognised separately

b) Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and it is expected that apart from credit deterioration substantially all of the initial investment will be recovered.

c) Held-to-maturity assets are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Group's management has the intention and ability to hold to maturity.

d) Available-for-sale assets are those non-derivative financial assets intended to be held for an indefinite period of time, which may be sold in response to liquidity requirements or changes in interest rates, exchange rates, commodity prices or equity prices.

e) Financial liabilities held at amortised cost: Financial liabilities, which include borrowings not classified as held at fair value through profit or loss, are classified as amortised cost instruments. 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 shareholders, 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.

Initial recognition of financial instruments

All financial instruments are initially recognised at fair value, which is normally the transaction price plus, for those financial assets and liabilities not carried at fair value through profit or loss, directly attributable transaction costs.

Subsequent measurement

Financial assets and liabilities held at fair value through profit or loss are carried at fair value, with gains and losses arising from changes in fair value taken directly to the net trading income line in the income statement except for changes in fair value on financial liabilities designated at fair value attributable to the Group's own credit presented directly within other comprehensive income.

Available-for-sale financial assets are carried at fair value, with gains and losses arising from changes in fair value taken to the available-for sale reserve within equity until the asset is sold, or is impaired, when the cumulative gain or loss is transferred to the income statement.

Loans and receivables are carried at amortised cost using the effective interest method.

Held-to-maturity financial assets are carried at amortised cost using the effective interest method.

Financial liabilities are stated at amortised cost, with any difference between proceeds net of directly attributable transaction costs and the redemption value recognised in the income statement over the period of the borrowings using the effective interest method.

In addition to these instruments, the carrying value of a financial instrument carried at amortised cost that is the hedged item in a qualifying fair value hedge relationship is adjusted by the fair value gain or loss attributable to the hedged risk.

41. Transition to IFRS 9 Financial Instruments continued

Balance Sheet

	IAS 39 31 December 2017 $million	Classification & measurement[2] $million	Expected credit losses $million	Other impacts $million	IFRS 9 1 January 2018 $million
Cash and balances at central banks	58,864	–	–	–	58,864
Financial assets held at fair value through profit or loss	27,564	47,076	–	–	74,640
Derivative financial instruments	47,031	–	–	–	47,031
Loans and advances to banks[1]	78,188	(15,886)	(7)	–	62,295
Of which: Reverse repurchase agreements and other similar secured lending	20,694	(15,593)	–	–	5,101
Loans and advances to customers[1]	282,288	(29,966)	(815)	–	251,507
Of which: Reverse repurchase agreements and other similar secured lending	33,581	(29,015)	–	–	4,566
Investment securities	117,025	(1,193)	(19)	–	115,813
Other assets	33,490	–	–	–	33,490
Current tax assets	491	–	–	1	492
Prepayments and accrued income	2,307	–	–	–	2,307
Interests in associates and joint ventures	2,307	–	–	(52)	2,255
Goodwill and intangible assets	5,013	–	–	–	5,013
Property, plant and equipment	7,211	–	–	–	7,211
Deferred tax assets	1,177	–	–	125	1,302
Assets classified as held for sale	545	–	–	–	545
Total assets	663,501	31	(841)	74	662,765
Deposits by banks	30,945	–	–	–	30,945
Customer accounts	370,509	–	–	–	370,509
Repurchase agreements and other similar secured borrowing	39,783	(38,144)	–	–	1,639
Financial liabilities held through profit or loss	16,633	38,140	–	–	54,773
Derivative financial instruments	48,101	–	–	–	48,101
Debt securities in issue	46,379	–	–	–	46,379
Other liabilities	35,257	–	–	–	35,257
Current tax liabilities	376	–	–	(10)	366
Accruals and deferred income	5,493	–	–	–	5,493
Subordinated liabilities and other borrowed funds	17,176	–	–	–	17,176
Deferred tax liabilities	404	–	–	(37)	367
Provisions for liabilities and charge[1]	183	–	176	–	359
Retirement benefit obligations	455	–	–	–	455
Total liabilities	611,694	(4)	176	(47)	611,819
Share capital and share premium account	7,097	–	–	–	7,097
Other reserves	12,767	(165)	65	(7)	12,660
Retained earnings[1]	26,641	200	(1,074)	128	25,895
Total parent company shareholders' equity	46,505	35	(1,009)	121	45,652
Other equity instruments	4,961	–	–	–	4,961
Total equity excluding non-controlling interests	51,466	35	(1,009)	121	50,613
Non-controlling interests	341	–	(8)	–	333
Total equity	51,807	35	(1,017)	121	50,946
Total equity and liabilities	663,501	31	(841)	74	662,765

1 The Group's initial estimate of credit impairment provisions on adoption of IFRS 9 was $6,720 million. Following refinement of the Group's expected loss models, the estimate of the opening credit impairment provisions has been revised down by $222 million to $6,498 million, and the net expected credit loss of $(1,296) million adjusted against retained earnings has similarly decreased by $222 million to $(1,074) million

2 FVTPL financial assets have increased due to reclassifications of $44,608 million of reverse repurchase agreements (IAS 39: loans and receivables), $1,244 million of loans and advances to banks and customers (IAS 39: loans and receivables), $511 million of investment debt securities (IAS 39: available-for sale) and $684 million of equity shares (IAS 39: available-for-sale), with the remaining $29m being IFRS 9 re-measurement adjustments. Repurchase agreements of $38,144 million have been reclassified from amortised cost under IAS 39 to FVTPL

41. Transition to IFRS 9 Financial Instruments continued

Statement of changes in equity

	Share capital and share premium account $million	Capital and merger reserves $million	Own credit adjustment reserve $million	Available-for-sale reserve $million	Fair value through OCI reserve $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 31 December 2017	7,097	17,129	54	83	–	(45)	(4,454)	26,641	46,505	4,961	341	51,807
Net impact of:	–	–	–	(83)	(82)	–	–	200	35	–	–	35
IFRS 9 reclassifications[1]	–	–	–	(83)	(86)	–	–	169	–	–	–	–
IFRS 9 re-measurements[2]	–	–	–	–	4	–	–	31	35	–	–	35
Expected credit loss, net[3]	–	–	–	–	65	–	–	(1,074)	(1,009)	–	(8)	(1,017)
Tax impact[4]	–	–	–	–	(6)	–	–	179	173	–	–	173
Impact of IFRS 9 on share of joint ventures and associates, net of tax	–	–	–	–	(1)	–	–	(51)	(52)	–	–	(52)
Estimated IFRS 9 transition adjustments	–	–	–	(83)	(24)	–	–	(746)	(853)	–	(8)	(861)
As at 1 January 2018	7,097	17,129	54	–	(24)	(45)	(4,454)	25,895	45,652	4,961	333	50,946

1 Available-for-sale category has been removed under IFRS 9. Unrealised gains and losses have been transferred to fair value through other comprehensive income (FVOCI) reserves, or retained earnings where the instruments are held as FVTPL. The FVOCI reserve includes a $187 million loss in respect of equity securities designated as FVOCI, partly offset by $18 million gain on debt securities designated as FVOCI

2 The remeasurement impact of financial assets that are now measured at fair value under IFRS 9 (page 353)

3 Impact from adopting expected credit losses. Gross impact is estimated at $1,082 million (comprising $1,074 million in retained earnings and $8 million in non-controlling interests). As FVOCI debt instruments are held at fair value on the balance sheet, the expected credit loss charged to retained earnings is recognised as a credit to the FVOCI reserve. The net FVOCI reserve relating to FVOCI debt instruments will be recycled to the income statement on disposal of the instruments

4 Tax of $173 million has been credited to reserves as a result of transition to IFRS 9. Of this, deferred tax of $142 million has been credited to retained earnings, and is provided on additional deductible temporary differences that have arisen from loss provisions due to initial adoption of the expected credit loss approach

Impact of moving from an incurred loss approach to an expected credit loss approach

	1 January 2018							
	Loss allowances per IAS 39			Expected credit loss per IFRS 9				
	Portfolio impairment provisions $million	Individual impairment provisions $million	Total $million	Stage 1 $million	Stage 2 $million	Stage 3 $million	Total $million	Increase/(decrease) $million
Corporate & Institutional Banking	156	3,466	3,622	105	394	3,433	3,932	310
Retail Banking	208	275	483	382	178	389	949	466
Commercial Banking	99	1,431	1,530	39	93	1,369	1,501	(29)
Private Banking	2	67	69	8	1	91	100	31
Central & other items	–	–	–	4	–	–	4	4
Total loans and advances to customers[1]	465	5,239	5,704	538	666	5,282	6,486	782
Loans and advances to banks	1	4	5	6	2	4	12	7
Financial guarantees	–	77	77	6	16	77	99	22
Debt securities and other eligible bills – amortised cost	–	114	114	3	16	213	232	118
Debt securities and other eligible bills – FVOCI	–	–	–	23	42	–	65	65
Total	466	5,434	5,900	576	742	5,576	6,894	994

1 Includes both drawn and undrawn commitments

41. Transition to IFRS 9 Financial Instruments continued

Movement in loss provisions

	Debt securities $ million	FVOCI debt securities $ million	Loans to banks $ million	Loans to customers $ million	Provisions for liabilities and charges: Undrawn commitments $ million	Provisions for liabilities and charges: Guarantees $ million	Total $ million
Total IAS 39 loss provisions	114	–	5	5,702[1]	2[1]	77	5,900
Reclassifications:							
Loss provisions reclassified to FVTPL	(109)	–	–	(122)	–	–	(231)
Modification losses netted against gross exposure	–	–	–	(65)	–	–	(65)
Adjusted IAS 39 loss provisions	5	–	5	5,515	2	77	5,604
Additional expected credit loss provisions	227	65	7	815	154	22	1,290
Total IFRS 9 impairment provisions	232	65	12	6,330[2]	156[2]	99	6,894
Estimated net expected credit loss movement	118	65	7	628	154	22	994

1 Total IAS 39 loss allowances ($5,704 million) applied to loans and advances to customers as previously reported (page 151)

2 Total IFRS 9 expected credit losses ($6,486 million) applied to loans and advances to customers (page 146)

Impact on non-performing loans to customers and banks[1]

	Corporate & Institutional Banking $million	Retail Banking $million	Commercial Banking $million	Private Banking $million	Total $million
Gross					
At 31 December 2017	5,957	489	2,026	207	8,679
Modified loans	(39)	–	(26)	–	(65)
Performing forborne (impaired)	–	329	–	–	329
Reclassified	(62)	–	(40)	–	(102)
At 1 January 2018 (stage 3)	5,856	818	1,960	207	8,841
Credit impairment provisions					
At 31 December 2017 (IAS 39 IIP)	3,468	215[2]	1,431	67	5,181
Modified loans	(39)	–	(26)	–	(65)
Performing forborne (impaired)	–	60	–	–	60
Reclassified to FVTPL	(81)	–	(40)	–	(121)
Additional expected credit loss	1	114	6	–	121
GSAM multiple scenario provisions	88	–	(2)	24	110
At 1 January 2018 (stage 3)	3,437	389[2]	1,369	91	5,286
IAS 39 PIP at 31 December 2017	157	208	99	2	466
Collateral at 31 December 2017	1,111	218	277	203	1,809
Non-performing cover ratios:					
At 31 December 2017 (IAS 39)	61%	87%	75%	33%	65%
At 31 December 2017 (IAS 39, excluding PIP)	58%	44%	71%	32%	60%
At 1 January 2018 (IFRS 9)	59%	48%	70%	44%	60%
At 31 December 2017 (IAS 39, including collateral)	77%	89%	84%	100%	81%
At 1 January 2018 (IFRS 9, including collateral)	78%	74%	84%	100%	80%
Of the above, included in the liquidation portfolio:					
Gross	1,945	–	125	156	2,226
Credit impairment provisions (IAS 39)	1,388	–	123	62	1,573
Additional provisions (IFRS 9)	29	–		24	53
At 1 January 2018 (stage 3)	1,417		123	86	1,626
Non-performing cover ratios:					
At 31 December 2017 (IAS 39)	71%	–	98%	40%	71%
At 1 January 2018 (IFRS 9)	73%	–	98%	55%	73%
At 31 December 2017 (IAS 39, including collateral)	84%	–	98%	100%	86%
At 1 January 2018 (IFRS 9, including collateral)	85%	–	98%	100%	88%

1 Includes FVTPL impaired loans

2 Under IAS 39, Retail Banking non-performing loans excluded those impaired loans classified as performing