

Financial statements

CONSOLIDATED FINANCIAL STATEMENTS

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COMPANY FINANCIAL STATEMENTS

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Consolidated income statement

For the year ended 31 December 2016

	Notes	2016 £m	2015 ¹ £m
Revenue	2	14,955	13,725
Cost of sales		(11,907)	(10,448)
Gross profit		3,048	3,277
Other operating income		5	10
Commercial and administrative costs ²		(2,208)	(1,070)
Research and development costs	3	(918)	(818)
Share of results of joint ventures and associates	11	117	100
Operating profit		44	1,499
(Loss)/profit on disposal of businesses		(3)	2
Profit before financing and taxation	2	41	1,501
Financing income	4	96	115
Financing costs	4	(4,773)	(1,456)
Net financing		(4,677)	(1,341)
(Loss)/profit before taxation*		(4,636)	160
Taxation	5	604	(76)
(Loss)/profit for the year		(4,032)	84
Attributable to:			
Ordinary shareholders		(4,032)	83
Non-controlling interests		—	1
(Loss)/profit for the year		(4,032)	84
Earnings per ordinary share attributable to ordinary shareholders:	6		
Basic		(220.08)p	4.51p
Diluted		(220.08)p	4.48p
Payments to ordinary shareholders in respect of the year:	17		
Per share		11.70p	16.37p
Total		215	301
* Underlying profit before taxation	2	813	1,432

¹ 2015 figures have been restated as a result of £11m of Power Systems costs previously reported in 'cost of sales', being reclassified as 'commercial and administrative costs' to ensure consistent treatment with 2016. The applicable notes have also been restated.

² In 2016, 'commercial and administrative costs' include £671m for financial penalties from agreements with investigating bodies (see note 23) and £306m for the restructuring of the UK pension schemes (see note 19).

Consolidated statement of comprehensive income

For the year ended 31 December 2016

	Notes	2016 £m	2015 £m
(Loss)/profit for the year		(4,032)	84
Other comprehensive income (OCI)			
Movements in post-retirement schemes	19	495	(722)
Share of OCI of joint ventures and associates	11	(2)	—
Related tax movements	5	(179)	257
Items that will not be reclassified to profit or loss		314	(465)
Foreign exchange translation differences on foreign operations		861	(129)
Reclassified to income statement on disposal of businesses		—	1
Share of OCI of joint ventures and associates	11	(7)	(19)
Related tax movements	5	4	(2)
Items that may be reclassified to profit or loss		858	(149)
Total comprehensive income for the year		(2,860)	(530)
Attributable to:			
Ordinary shareholders		(2,860)	(530)
Non-controlling interests		—	—
Total comprehensive income for the year		(2,860)	(530)

Consolidated balance sheet

At 31 December 2016

	Notes	2016 £m	2015 £m
ASSETS			
Intangible assets	9	5,080	4,645
Property, plant and equipment	10	4,114	3,490
Investments – joint ventures and associates	11	844	576
Investments – other	11	38	33
Other financial assets	17	382	83
Deferred tax assets	5	876	318
Post-retirement scheme surpluses	19	1,346	1,063
Non-current assets		12,680	10,208
Inventories	12	3,086	2,637
Trade and other receivables	13	6,956	6,244
Taxation recoverable		32	23
Other financial assets	17	5	29
Short-term investments		3	2
Cash and cash equivalents	14	2,771	3,176
Assets held for sale		5	5
Current assets		12,858	12,116
TOTAL ASSETS		25,538	22,324
LIABILITIES			
Borrowings	15	(172)	(419)
Other financial liabilities	17	(651)	(331)
Trade and other payables	16	(7,957)	(6,923)
Current tax liabilities		(211)	(164)
Provisions for liabilities and charges	18	(543)	(336)
Current liabilities		(9,534)	(8,173)
Borrowings	15	(3,185)	(2,883)
Other financial liabilities	17	(5,129)	(1,651)
Trade and other payables	16	(3,459)	(2,317)
Non-current tax liabilities		–	(1)
Deferred tax liabilities	5	(776)	(839)
Provisions for liabilities and charges	18	(216)	(304)
Post-retirement scheme deficits	19	(1,375)	(1,140)
Non-current liabilities		(14,140)	(9,135)
TOTAL LIABILITIES		(23,674)	(17,308)
NET ASSETS		1,864	5,016
EQUITY			
Called-up share capital	20	367	367
Share premium account		181	180
Capital redemption reserve		162	161
Cash flow hedging reserve		(107)	(100)
Other reserves		814	(51)
Retained earnings		445	4,457
Equity attributable to ordinary shareholders		1,862	5,014
Non-controlling interests		2	2
TOTAL EQUITY		1,864	5,016

The financial statements on pages 115 to 166 were approved by the Board on 13 February 2017 and signed on its behalf by:

WARREN EAST
Chief Executive

DAVID SMITH
Chief Financial Officer

Consolidated cash flow statement

For the year ended 31 December 2016

	Notes	2016 £m	2015 £m
Operating profit		44	1,499
Loss on disposal of property, plant and equipment		5	8
Share of results of joint ventures and associates	11	(117)	(100)
Dividends received from joint ventures and associates	11	74	63
Amortisation and impairment of intangible assets	9	628	432
Depreciation and impairment of property, plant and equipment	10	426	378
Impairment of investments	11	–	2
Increase/(decrease) in provisions		44	(151)
(Increase)/decrease in inventories		(161)	63
Decrease/(increase) in trade and other receivables		54	(836)
Accruals for financial penalties from agreements with investigating bodies		671	–
Other increase in trade and other payables		234	242
Cash flows on other financial assets and liabilities held for operating purposes		(608)	(305)
Net defined benefit post-retirement cost recognised in profit before financing	19	510	213
Cash funding of defined benefit post-retirement schemes	19	(271)	(259)
Share-based payments	21	35	5
Net cash inflow from operating activities before taxation		1,568	1,254
Taxation paid		(157)	(160)
Net cash inflow from operating activities		1,411	1,094
Cash flows from investing activities			
Additions of unlisted investments	11	–	(6)
Additions of intangible assets	9	(631)	(408)
Disposals of intangible assets	9	8	4
Purchases of property, plant and equipment		(585)	(487)
Government grants received		15	8
Disposals of property, plant and equipment		8	33
Acquisitions of businesses	25	(6)	(5)
Disposal of discontinued operations		–	(121)
Disposals of other businesses	25	7	2
Increase in share in joint ventures	11	(154)	–
Other investments in joint ventures and associates	11	(30)	(15)
Cash and cash equivalents of joint ventures reclassified as joint operations		5	–
Net cash outflow from investing activities		(1,363)	(995)
Cash flows from financing activities			
Repayment of loans		(434)	(54)
Proceeds from increase in loans and finance leases		93	1,150
Capital element of finance lease payments		(4)	(1)
Net cash flow from (decrease)/increase in borrowings and finance leases		(345)	1,095
Interest received		14	5
Interest paid		(84)	(58)
Interest element of finance lease payments		(2)	(2)
(Increase)/decrease in short-term investments		(1)	5
Issue of ordinary shares (net of expenses)		1	32
Purchase of ordinary shares – share buyback		–	(433)
Purchase of ordinary shares – other		(21)	(2)
Redemption of C Shares		(301)	(421)
Net cash (outflow)/inflow from financing activities		(739)	221
Change in cash and cash equivalents		(691)	320
Cash and cash equivalents at 1 January		3,176	2,862
Exchange gains/(losses) on cash and cash equivalents		286	(6)
Cash and cash equivalents at 31 December		2,771	3,176

Consolidated cash flow statement continued

For the year ended 31 December 2016

	2016 £m	2015 £m
Reconciliation of movements in cash and cash equivalents to movements in net debt		
Change in cash and cash equivalents	(691)	320
Cash flow from decrease/(increase) in borrowings and finance leases	345	(1,095)
Cash flow from increase/(decrease) in short-term investments	1	(5)
Change in net debt resulting from cash flows	(345)	(780)
Net debt (excluding cash and cash equivalents) of joint ventures reclassified as joint operations	(9)	—
Exchange gains on net debt	240	3
Fair value adjustments	(345)	45
Movement in net debt	(459)	(732)
Net debt at 1 January excluding the fair value of swaps	(124)	608
Net debt at 31 December excluding the fair value of swaps	(583)	(124)
Fair value of swaps hedging fixed rate borrowings	358	13
Net debt at 31 December	(225)	(111)

The movement in net debt (defined by the Group as including the items shown below) is as follows:

	At 1 January 2016 £m	Funds flow £m	Reclassification of joint ventures to joint operations £m	Exchange differences £m	Fair value adjustments £m	Reclassifications £m	At 31 December 2016 £m
Cash at bank and in hand	662	96	5	109	—	—	872
Money-market funds	783	(260)	—	29	—	—	552
Short-term deposits	1,731	(532)	—	148	—	—	1,347
Cash and cash equivalents	3,176	(696)	5	286	—	—	2,771
Short-term investments	2	1	—	—	—	—	3
Other current borrowings	(417)	350	(9)	(24)	—	(69)	(169)
Non-current borrowings	(2,833)	(1)	—	(11)	(345)	69	(3,121)
Finance leases	(52)	(4)	—	(11)	—	—	(67)
Net debt excluding fair value of swaps	(124)	(350)	(4)	240	(345)	—	(583)
Fair value of swaps hedging fixed rate borrowings	13	—	—	—	345	—	358
Net debt	(111)	(350)	(4)	240	—	—	(225)

Consolidated statement of changes in equity

For the year ended 31 December 2016

		Attributable to ordinary shareholders						Non-controlling interests (NCI) £m	Total equity £m	
	Notes	Share capital £m	Share premium £m	Capital redemption reserve £m	Cash flow hedging reserve ¹ £m	Other reserves ² £m	Retained earnings ³ £m	Total £m		
At 1 January 2015		376	179	159	(81)	78	5,671	6,382	5	6,387
Profit for the year		—	—	—	—	—	83	83	1	84
Foreign exchange translation differences on foreign operations		—	—	—	—	(128)	—	(128)	(1)	(129)
Reclassified to income statement on disposal of businesses		—	—	—	—	1	—	1	—	1
Movement on post-retirement schemes	19	—	—	—	—	—	(722)	(722)	—	(722)
Share of other comprehensive income of joint ventures and associates	11	—	—	—	(19)	—	—	(19)	—	(19)
Related tax movements	5	—	—	—	—	(2)	257	255	—	255
Total comprehensive income for the year		—	—	—	(19)	(129)	(382)	(530)	—	(530)
Arising on issues of ordinary shares		—	1	—	—	—	—	1	—	1
Issue of C Shares ⁴	17	—	—	(430)	—	—	2	(428)	—	(428)
Redemption of C Shares	17	—	—	423	—	—	(423)	—	—	—
Ordinary shares purchased – share buyback ⁵		—	—	—	—	—	(433)	(433)	—	(433)
Ordinary shares cancelled ⁵	20	(9)	—	9	—	—	—	—	—	—
Ordinary shares purchased – other		—	—	—	—	—	(2)	(2)	—	(2)
Share-based payments – direct to equity ⁶		—	—	—	—	—	30	30	—	30
Transactions with NCI		—	—	—	—	—	—	—	(3)	(3)
Related tax movements	5	—	—	—	—	—	(6)	(6)	—	(6)
Other changes in equity in the year		(9)	1	2	—	—	(832)	(838)	(3)	(841)
At 1 January 2016		367	180	161	(100)	(51)	4,457	5,014	2	5,016
Loss for the year		—	—	—	—	—	(4,032)	(4,032)	—	(4,032)
Foreign exchange translation differences on foreign operations		—	—	—	—	861	—	861	—	861
Movement on post-retirement schemes	19	—	—	—	—	—	495	495	—	495
Share of other comprehensive income of joint ventures and associates	11	—	—	—	(7)	—	(2)	(9)	—	(9)
Related tax movements	5	—	—	—	—	4	(179)	(175)	—	(175)
Total comprehensive income for the year		—	—	—	(7)	865	(3,718)	(2,860)	—	(2,860)
Arising on issues of ordinary shares		—	1	—	—	—	—	1	—	1
Issue of C Shares ⁴	17	—	—	(301)	—	—	1	(300)	—	(300)
Redemption of C Shares	17	—	—	302	—	—	(302)	—	—	—
Ordinary shares purchased		—	—	—	—	—	(21)	(21)	—	(21)
Share-based payments – direct to equity ⁶		—	—	—	—	—	30	30	—	30
Related tax movements	5	—	—	—	—	—	(2)	(2)	—	(2)
Other changes in equity in the year		—	1	1	—	—	(294)	(292)	—	(292)
At 31 December 2016		367	181	162	(107)	814	445	1,862	2	1,864

¹ See accounting policies note 1.

² Other reserves include a merger reserve of £3m (2015: £3m, 2014: £3m) and a translation reserve of £811m (2015: £(54)m, 2014: £75m).

³ At 31 December 2016, 6,854,216 ordinary shares with a net book value of £56m (2015: 5,894,064, 2014: 14,561,097 ordinary shares with net book values of £52m and £129m respectively) were held for the purpose of share-based payment plans and included in retained earnings. During the year, 1,955,390 ordinary shares with a net book value of £17m (2015: 10,892,026 shares with a net book value of £98m) vested in share-based payment plans. During the year, the Company acquired 165,542 (2015: 224,993) of its ordinary shares via reinvestment of dividends received on its own shares and purchased 2,750,000 (2015: 2,000,000) of its ordinary shares through purchases on the London Stock Exchange.

⁴ In Rolls-Royce Holdings plc's own financial statements, C Shares are issued from the merger reserve. As this reserve is eliminated on consolidation, in the consolidated financial statements, the C Shares are shown as being issued from the capital redemption reserve.

⁵ Following the completion of the sale of the Energy business to Siemens on 1 December 2014 and further to the announcement on 19 June 2014 of a £1bn share buyback, the Company put in place a programme to enable the purchase of its ordinary shares. The aim of the buyback was to reduce the issued share capital of the Company, helping enhance returns for shareholders. In the year to 31 December 2015, 46,016,303 shares were purchased at an average price of 937p. 44,016,303 of these shares were cancelled and 2,000,000 were retained for use in share-based payment programmes. On 6 July 2015, the Company announced that the share buyback programme had been curtailed at the to-date total of £500m.

⁶ Share-based payments – direct to equity is the net of the credit to equity in respect of the share-based payment charge to the income statement and the actual cost of shares vesting, excluding those vesting from own shares.

Notes to the consolidated financial statements

1 Accounting policies

THE COMPANY

Rolls-Royce Holdings plc (the 'Company') is a company domiciled in the United Kingdom. The consolidated financial statements of the Company for the year ended 31 December 2016 consist of the consolidation of the financial statements of the Company and its subsidiaries (together referred to as the 'Group') and include the Group's interest in jointly controlled and associated entities.

BASIS OF PREPARATION AND STATEMENT OF COMPLIANCE

In accordance with European Union (EU) regulations, these financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as adopted for use in the EU effective at 31 December 2016 (Adopted IFRS).

The Company has elected to prepare its individual company financial statements under FRS 101 *Reduced Disclosure Framework*. They are set out on pages 167 to 169 and the accounting policies in respect of Company financial statements are set out on page 168.

These consolidated financial statements have been prepared on the historical cost basis except where Adopted IFRS requires the revaluation of financial instruments to fair value and certain other assets and liabilities on an alternative basis – most significantly post-retirement scheme obligations are valued on the basis required by IAS 19 *Employee Benefits* – and on a going concern basis as described on page 53.

The consolidated financial statements are presented in sterling which is the Company's functional currency.

The preparation of financial statements in conformity with Adopted IFRS requires management to make judgements and estimates that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

KEY AREAS OF JUDGEMENT

Introduction

The Group generates a significant portion of its revenues and profit on aftermarket arrangements arising from the installed original equipment (OE) fleet. As a consequence, the Group will often agree contractual prices for OE deliveries that take into account the anticipated aftermarket arrangements. Accounting policies reflect this aspect of the business model, in particular the policies for the recognition of contractual aftermarket rights and the linkage of OE and actual aftermarket arrangements.

When a civil large engine is sold, the economic benefits received usually far exceed the cash receivable under the contract, due to the rights to valuable aftermarket spare parts business. However, because the value of this right cannot be estimated with enough precision, accounting standards require that the revenue recognised in the accounts on sale of the engine is restricted to a total amount that results in a break even position. The amount of the revenue recognised in excess of cash receivable is recognised as an intangible asset, which is called a contractual aftermarket right (CAR).

There is only one circumstance where accounting standards require the recognition of more of the value of the aftermarket rights when an engine is sold. This occurs where a long-term aftermarket contract (generally a TotalCare agreement – TCA) and an engine sale contract have been negotiated together. In this circumstance, the part of the aftermarket rights covered by the TCA can be valued much more precisely and is recognised at the time of the engine sale through accounting for the engine sale and TCA as a single contract. Nevertheless, the accounting profit recognised is still less than the economic benefits on the sale as there will be other valuable aftermarket rights (for instance for the period beyond the TCA term or for the sale of parts which are outside the scope of the TCA) which cannot be recognised.

The Group enters into arrangements with long-term suppliers to share the risks and rewards of major programmes – risk and revenue sharing arrangements (RRSAs). The accounting policy for these arrangements has been chosen, consistent with Adopted IFRS, to reflect their commercial effect.

The key judgements in determining these accounting policies are described below.

Contractual aftermarket rights

On delivery of Civil Aerospace engines, the Group has contractual rights to supply aftermarket parts to the customers and its intellectual rights, warranty arrangements and, where relevant, statutory airworthiness or other regulatory requirements provide reasonable control over this supply. The Directors consider that these rights meet the definition of an intangible asset in IAS 38 *Intangible Assets*. However, the Directors do not consider that it is possible to determine a reliable fair value for this intangible asset. Accordingly, an intangible asset (CAR) is only recognised on the occasions where the contractual price of the engine is below the cost of manufacture and then only to the extent of this deficit, as this amount is reliably measurable. An equal amount of revenue is recognised at the same point. Where a long-term aftermarket contract is linked to the OE contract (see page 122), the contractual price of the engine (including amounts allocated from the aftermarket contract) is above its cost of manufacture; consequently no CAR is recognised.

Notes to the consolidated financial statements continued

1 Accounting policies continued

Measure of performance on long-term aftermarket contracts

A large proportion of the Group's activities relate to long-term aftermarket contracts, in particular TotalCare and similar arrangements in Civil Aerospace. Under these contracts, the Group's primary obligation is to maintain customers' equipment in an operational condition and it achieves this by undertaking various activities, such as engine monitoring, line maintenance and repair and overhaul, over the period of the contract. In general, the Directors consider that the stage of performance of the contract should be by reference to the obligation to maintain an operational fleet and that this is best measured by the operation of the fleet. Accordingly, stage of performance is measured by reference to flying hours of each fleet under contract.

Linkage of OE and long-term aftermarket contracts

Where the key terms of a long-term aftermarket contract are substantively agreed (eg. in a term sheet) at the same time as an OE contract with the operator, the Directors consider these to be linked for accounting purposes and they are treated as a single contract, as this best reflects the overall commercial effect. Where the OE contract is not with the operator, eg. where it is with an OE manufacturer or a lessor, the contracts are not linked as they were not negotiated on a unified basis.

Sales of spare engines to joint ventures

Whether the sales price reflects fair value when the Group sells spare engines to a joint venture company.

Risk and revenue sharing arrangements

RRSAs with key suppliers (workshare partners) are a feature of our Civil Aerospace business. Under these contractual arrangements, the key commercial objectives are that: (i) during the development phase the workshare partner shares in the risks of developing an engine by performing its own development work, providing development parts and paying a non-refundable cash entry fee; and (ii) during the production phase it supplies components in return for a share of the programme revenues as a 'life of type' supplier (ie. as long as the engine remains in service). The share of development costs borne by the workshare partner and of the revenues it receives reflect the partner's proportionate cost of providing its production parts compared to the overall manufacturing cost of the engine. The share is based on a jointly-agreed forecast at the commencement of the arrangement.

These arrangements are complex and have features that could be indicative of: a collaboration agreement, including sharing of risk and cost in a development programme; a long-term supply agreement; sharing of intellectual property; or a combination of these. In summary, and as described below, the Directors' view is that the development and production phases of the contract should be considered separately in accounting for the RRSA, which results in the entry fee being matched against the non-recurring costs incurred by the Group.

Having considered the features above, the Directors consider that there is no directly applicable IFRS to determine an accounting policy for the recognition of entry fees of this nature in the income statement. Consequently, in developing an accounting treatment for such entry fees that best reflects the commercial objectives of the contractual arrangement, the Directors have analysed these features in the context of relevant accounting pronouncements (including those of other standard setters where these do not conflict with IFRS) and have weighed the importance of each feature in faithfully representing the overall commercial effect. The most important considerations that need to be balanced are: the transfer of development risk; the workshare partner receiving little standalone value from the payment of the entry fee; and the overall effect being collaboration between the parties which falls short of being a joint venture as the Group controls the programme. Also important in the analysis is the fact that, whilst the Group and the workshare partner share risks and rewards through the life of the contract, these risks and rewards are very different during the development and production phases.

In this context, the entry fee might be considered to represent: an amount paid as an equalisation of development costs; a payment to secure a long-term supply arrangement; a purchase of intellectual property; or some combination thereof. The accounting under these different scenarios could include: recognition of the entry fee to match the associated costs in the income statement; being spread over the life of the programme as a reduction in the cost of supply during production; or being spread over the time period of the access to the intellectual property by the workshare partner.

The Directors consider that the most important features of the arrangement are the risk sharing and that the entry fee represents a contribution to the development costs that the Group incurs in excess of its proportionate programme share. The key judgements taken in reaching this view are: the entry fee is determined by the parties on that basis and the contract specifies that, in the event that a derivative engine is to be developed, additional entry fees will also be calculated on this basis; the workshare partners describe the entry fee in this way; although the workshare partner receives little stand-alone value from paying the entry fee, the entry fee together with its own development activities represent its aggregate investment in the collaboration; the amount of the entry fee does not include any amount in excess of that necessary to equalise forecast development costs; the Group is not 'on risk' for the full development costs it incurs but for that amount less the entry fees received.

The resulting accounting policy (described on page 125) represents the commercial effect of the contractual arrangements in that the Group recognises only those development costs to which it is exposed (and thus reflects the significant transfer of development risk to the workshare partner) and the costs of supply of parts during the production phase is measured at the workshare partner's share of programme revenues (which we consider to be a commercial fair value). The Directors do not consider that accounting which would result in entry fees only being recognised in the production phase would appropriately reflect the sharing of development risk. Accordingly, the Directors believe that the policy adopted best reflects the commercial objectives of the arrangements, the nature of the relationship with the workshare partner and is in accordance with Adopted IFRS.

1 Accounting policies continued

As described in the 2013 Annual Report, an alternative view is that the RRSA contract cannot be divided into separate development and production phases, as the fees and development components received by the Group during the development phase are exchanged for the obligation to pay the supplier a predetermined share of any sales receipts during the production phase. On this basis, the entry fees received would be deferred in their entirety and recognised over the period of production. The size of the difference between the two approaches is monitored and is not currently expected to become material in the foreseeable future. The impact of the different approaches on profit before tax and net assets, which is not considered to be material, is as follows:

	2016			2015		
	Reported profit before tax £m	Underlying profit before tax £m	Net assets £m	Reported profit before tax £m	Underlying profit before tax £m	Net assets £m
Adopted policy	(4,636)	813	1,864	160	1,432	5,016
Difference	(2)	(2)	(442)	(28)	(28)	(435)
Alternative policy ¹	(4,638)	811	1,422	132	1,404	4,581

¹ If the alternative policy were adopted, the difference would be included in profit before financing, which would change from £41m as reported to £39m (2015: £1,501m to £1,473m).

Internally-generated development costs

IAS 38 requires that internally-generated development costs should only be recognised if strict criteria are met, in particular relating to technical feasibility and generation of future economic benefits. The Directors consider that, due to the complex nature of new equipment programmes, these criteria are not met until relatively late in the programme – Civil Aerospace programmes represent around half of development costs recognised; for these, the criteria are generally satisfied around the time of the initial engine certification.

Customer financing contingent liabilities

The Group has contingent liabilities in respect of financing support provided to customers. In order to assess whether a provision should be recognised, judgement as to the likelihood of these crystallising is required. This judgement is based on an assessment on the knowledge of the customers' fleet plans, the underlying value of the security provided and, where appropriate, the customers' creditworthiness.

KEY SOURCES OF ESTIMATION UNCERTAINTY

In applying the accounting policies, estimates are made in many areas; the actual outcome may differ from that calculated. The key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial year, are set out below. The estimation of the relevant assets and liabilities involves the combination of a number of assumptions. Sensitivities are disclosed in the relevant notes where this is appropriate and practicable.

Forecasts and discount rates

The carrying values of a number of items on the balance sheet are dependent on the estimates of future cash flows arising from the Group's operations, in particular:

- The assessment of whether the goodwill (carrying value at 31 December 2016: **£1,537m**, 31 December 2015: £1,503m) arising on the consolidation of acquired businesses is impaired is dependent of the present value of the future cash flows expected to be generated by the business.
- The assessment as to whether there are any indications of impairment of development, participation, certification, customer relationships and contractual aftermarket rights recognised as intangible assets (carrying values at 31 December 2016: **£2,846m**, 31 December 2015: £2,533m) is dependent on estimates of cash flows generated by the relevant assets and the discount rate used to calculate a present value. These estimates include the performance of long-term contractual arrangements as described below, as well as estimates for future market share, pricing and unit cost for uncontracted business. The risk of impairment is generally higher for newer programmes and for customer specific intangible assets (CARs) for launch customers and typically reduces as programmes become more established.

Assessment of long-term contractual arrangements

The Group has long-term contracts that fall into different accounting periods and which can extend over significant periods – the most significant of these are long-term service arrangements in the Civil Aerospace business. The estimated revenues and costs are inherently imprecise and significant estimates are required to assess: engine flying hours, time on wing and other operating parameters; the pattern of future maintenance activity and the costs to be incurred; life-cycle cost improvements over the term of the contracts and escalation of revenues and costs. The estimates take account of the inherent uncertainties and the risk of non-recovery of any resulting contract balances. In addition many of the revenues and costs are denominated in currencies other than that of the relevant Group undertaking. These are translated at an estimated long-term exchange rate, based on historical trends. In 2016, the US dollar long-term exchange rate was reduced by five cents, resulting in a one-off benefit to profit before tax of £35m.

Notes to the consolidated financial statements continued

1 Accounting policies continued

Post-retirement benefits

The Group's defined benefit pension schemes and similar arrangements are assessed annually in accordance with IAS 19. The accounting valuation, which is based on assumptions determined with independent actuarial advice, resulted in a net deficit of **£29m** before deferred taxation being recognised on the balance sheet at 31 December 2016 (31 December 2015: net deficit £77m). The size of the net surplus/deficit is sensitive to the market value of the assets held by the schemes and to actuarial assumptions, which include price inflation, pension and salary increases, the discount rate used in assessing actuarial liabilities, mortality and other demographic assumptions and the levels of contributions. Further details are included in note 19.

Provisions

As described in the accounting policy on page 128, the Group measures provisions (carrying value at 31 December 2016: **£759m**, 31 December 2015: £640m) at the Directors' best estimate of the expenditure required to settle the obligation at the balance sheet date. These estimates take account of information available and different possible outcomes.

Taxation

The tax payable on profits is determined based on tax laws and regulations that apply in each of the numerous jurisdictions in which the Group operates. Where the precise impact of these laws and regulations is unclear, or uncertain, then reasonable estimates may be used to determine the tax charge included in the financial statements.

The main area of uncertainty is in relation to cross-border transactions, entered into in the normal course of business, as the amount of income or profit taxable in each country involved can be subjective and therefore open to interpretation by the relevant tax authorities. This can result in disputes and possibly litigation.

Tax provisions require management to make judgements and estimates of exposures in relation to tax audit issues and other areas of uncertainty. Contingent liabilities, including in respect of any tax disputes or litigation, are covered in note 23 (contingent liabilities). All provisions are in current liabilities. Any liability relating to interest or penalties on tax liabilities is included in the tax charge.

Deferred tax assets are recognised to the extent it is probable that future taxable profits will be available, against which the deductible temporary difference can be utilised, based on management's assumptions relating to the amounts and timing of future taxable profits.

Further details on the Group's tax position can be found on page 184.

SIGNIFICANT ACCOUNTING POLICIES

The Group's significant accounting policies are set out below. These accounting policies have been applied consistently to all periods presented in these consolidated financial statements and by all Group entities.

Basis of consolidation

The Group consolidated financial statements include the financial statements of the Company and its subsidiary undertakings together with the Group's share of the results of joint arrangements and associates made up to 31 December. In line with common practice in Germany, a small number of immaterial subsidiaries of Rolls-Royce Power Systems are not consolidated and are carried at cost in other investments.

A subsidiary is an entity controlled by the Company. Control exists when the Company has power over an entity, exposure to variable returns from its involvement with an entity and the ability to use its power over an entity so as to affect the Company's returns.

A joint arrangement is an entity in which the Group holds a long-term interest and which is jointly controlled by the Group and one or more other venturers under a contractual arrangement. Joint arrangements may be either joint ventures or joint operations. An associate is an entity, being neither a subsidiary nor a joint arrangement, in which the Group holds a long-term interest and where the Group has a significant influence. The results of joint ventures and associates are accounted for using the equity method of accounting. Joint operations are accounted for using proportionate accounting.

During the year, the Group has reassessed the categorisation of joint arrangements. As a result of this review, certain entities, previously classified as joint ventures, have been reclassified as joint operations from 1 January 2016. This reclassification does not affect profit before tax or net assets, but the Group's share of the individual income statement and balance sheet categories are included on a proportional basis, rather than as a single figure. The adjustment to the opening balance was to reclassify **£57m** of investments in joint ventures to: property, plant and equipment (£41m), inventory (£19m), receivables (£18m), cash (£5m), payables (£17m) and borrowings (£9m). Prior year figures have not been restated.

Any subsidiary undertakings, joint arrangements or associates sold or acquired during the year are included up to, or from, the date of change of control. Transactions with non-controlling interests are recorded directly in equity.

All intra-group transactions, balances, income and expenses are eliminated on consolidation. Adjustments are made to eliminate the profit or loss arising on transactions with joint arrangements and associates to the extent of the Group's interest in the entity.

1 Accounting policies continued

Revenue recognition

Revenues comprise sales to outside customers after discounts, excluding value added taxes.

Sales of products (both OE and spare parts) are recognised when the significant risks and rewards of ownership of the goods are transferred to the customer, the sales price agreed and the receipt of payment can be assured – this is generally on delivery. On occasion, the Group may participate in the financing of OE, most commonly by the provision of guarantees as described in note 18. In such circumstances, the contingent obligations arising under these arrangements are taken into account in assessing when the significant risks and rewards of ownership have been transferred to the customer. As described on page 121, a sale of OE at a contractual price below its cost of manufacture is considered to give rise to revenue to the extent that an intangible asset (contractual aftermarket right) is recognised at the same time.

Sales of services are recognised by reference to the stage of completion based on services performed to date. As described on page 122, the assessment of the stage of completion is dependent on the nature of the contract, but will generally be based on: flying hours or equivalent for long-term aftermarket arrangements where the service is provided on a continuous basis; costs incurred to the extent these relate to services performed up to the reporting date; or achievement of contractual milestones where relevant.

As described on page 122, **sales of products and services** are treated as though they are a single contract where these components have been negotiated as a single commercial package and are so closely interrelated that they do not operate independently of each other and are considered to form a single transaction with an overall profit margin. The total revenue is allocated between the two components such that the total agreed discount to list prices is allocated to revenue for each of the two components pro rata, based on list prices. The revenue is then recognised for each component on this basis as the products are delivered and services provided, as described above. Where the contractual price of the OE component is below the revenue allocated from the combined arrangement, this will give rise to an asset included in 'amounts recoverable on contracts'. This asset reduces as services are provided, increases as costs are incurred, and reduces to zero by the end of the contract. Where the balance is a liability, it is recognised in 'accruals and deferred income'.

Provided that the outcome of construction contracts can be assessed with reasonable certainty, the revenues and costs on such contracts are recognised based on stage of completion and the overall contract profitability. Full provision is made for any estimated losses to completion of contracts, having regard to the overall substance of the arrangements.

Progress payments received, when greater than recorded revenue, are deducted from the value of work in progress except to the extent that payments on account exceed the value of work in progress on any contract where the excess is included in accruals and deferred income within trade and other payables. The amount by which recorded revenue of long-term contracts is in excess of payments on account is classified as amounts recoverable on contracts and is separately disclosed within trade and other receivables.

TotalCare arrangements

As described above, these are accounted for on a stage of completion basis, with the stage of completion based on the proportion of flying hours completed compared to the total estimated under the contract. In making the assessment of future revenues, costs and the level of profit recognised the Group takes account of: (i) the forecast utilisation of the engines by the operator; (ii) the forecast costs to maintain the engines in accordance with the contractual requirements – the principal variables being the time between shop visits and the cost of each shop visit; and (iii) the recoverability of any contract asset arising. The Group benchmarks the forecast costs against previous programmes, recognising that the reliability of the forecasts will improve as operational experience of the engine increases. To the extent that actual costs differ from forecast costs or that forecast costs change, the cumulative impact is recognised in the period. An allowance is made against forecast contract revenues given the potential for reduced engine flying hours based on historical forecasting accuracy, the risk of aircraft being parked by the customer and the customer's creditworthiness. Again, changes in this allowance are recognised in the period.

Risk and revenue sharing arrangements (RRSAs)

As described on page 122, the Group enters into arrangements with certain workshare partners under which these suppliers: (i) contribute to the forecast costs of developing an engine by performing their own development work, providing development parts and paying a non-refundable cash entry fee; and (ii) supply components for the production phase for which they receive consideration, which is an agreed proportion of the total programme revenues. Both the suppliers' contributions to the forecast non-recurring development costs and their consideration are determined by reference to their proportionate forecast scopes of supply relative to that of the engine overall. Once the forecast costs and the scopes of supply have been agreed at the inception of the contract, each party is then accountable for its own incurred costs. No accounting entries are recorded when the suppliers undertake development work or when development components are supplied. Cash sums received are recognised in the income statement, as a reduction in research and development costs incurred, to match the expensing of the Group's related costs – where the cash sums are received in advance of the related costs being expensed or where the related costs are capitalised as intangible assets, the recognition of the cash received is deferred (in accruals and deferred income) to match the recognition of the related expense or the amortisation of the related intangible asset respectively. The payments to suppliers of their shares of the programme revenues for their production components are charged to cost of sales as programme revenues arise.

The Group has arrangements with partners who do not undertake development work or supply parts. Such arrangements are considered to be financial instruments as defined by IAS 32 *Financial Instruments: Presentation* and are accounted for using the amortised cost method.

Notes to the consolidated financial statements continued

1 Accounting policies continued

Government investment

Where a government or similar body has previously invested in a development programme, the Group treats payments to that body as royalty payments, which are matched to related sales.

Government grants

Government grants are recognised in the income statement so as to match them with the related expenses that they are intended to compensate. Where grants are received in advance of the related expenses, they are included in the balance sheet as deferred income. Non-monetary grants are recognised at fair value.

Interest

Interest receivable/payable is credited/charged to the income statement using the effective interest method. Where borrowing costs are attributable to the acquisition, construction or production of a qualifying asset, such costs are capitalised as part of the specific asset.

Taxation

The tax charge/credit on the profit or loss for the year comprises current and deferred tax:

- Current tax is the expected tax payable for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years.
- Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of the assets and liabilities for financial reporting purposes and the amounts used for tax purposes and is calculated using the enacted or substantively enacted rates that are expected to apply when the asset or liability is settled.

Tax is charged or credited in the income statement or other comprehensive income (OCI) as appropriate, except when it relates to items credited or charged directly to equity in which case the tax is also dealt with in equity.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and joint arrangements, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax is not recognised on taxable temporary differences arising on the initial recognition of goodwill or for temporary differences arising from the initial recognition of assets and liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profits will be available against which the assets can be utilised.

Foreign currency translation

Transactions denominated in currencies other than the functional currency of the transacting Group undertaking are translated into the functional currency at the exchange rates ruling on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into the relevant functional currency at the rate ruling at the year end. Exchange differences arising on foreign exchange transactions and the retranslation of assets and liabilities into functional currencies at the rate ruling at the year end are taken into account in determining profit before taxation.

The trading results of Group undertakings are translated into sterling at the average exchange rates for the year. The assets and liabilities of overseas undertakings, including goodwill and fair value adjustments arising on acquisition, are translated at the exchange rates ruling at the year end. Exchange adjustments arising from the retranslation of the opening net investments, and from the translation of the profits or losses at average rates, are recognised in OCI. The cumulative amount of exchange adjustments was, on transition to IFRS in 2004, deemed to be nil.

Financial instruments

IAS 39 *Financial Instruments: Recognition and Measurement* requires the classification of financial instruments into separate categories for which the accounting requirement is different. The Group has classified its financial instruments as follows:

- Short-term investments are generally classified as **available for sale**.
- Short-term deposits (principally comprising funds held with banks and other financial institutions), trade receivables and short-term investments not designated as available for sale are classified as **loans and receivables**.
- Borrowings, trade payables, financial RRSAs, and C Shares are classified as **other liabilities**.
- Derivatives, comprising foreign exchange contracts, interest rate swaps and commodity swaps are classified as **fair value through profit or loss**.

Financial instruments are recognised at the contract date and initially measured at fair value. Their subsequent measurement depends on their classification:

- **Available for sale** assets are held at fair value. Changes in fair value arising from changes in exchange rates are included in the income statement. All other changes in fair value are taken to equity. On disposal, the accumulated changes in value recorded in equity are included in the gain or loss recorded in the income statement.

1 Accounting policies *continued*

- **Loans and receivables and other liabilities** are held at amortised cost and not revalued (except for changes in exchange rates and forecast contractual cash flows, which are included in the income statement) unless they are included in a fair value hedge accounting relationship. Where such a hedging relationship exists, the instruments are revalued in respect of the risk being hedged, with the change in value included in the income statement.
- **Fair value through profit or loss** items are held at fair value. Changes in fair value are included in the income statement unless the instrument is included in a cash flow hedge. If the instruments are included in an effective cash flow hedging relationship, changes in value are taken to equity. When the hedged forecast transaction occurs, amounts previously recorded in equity are recognised in the income statement.

Financial instruments are derecognised on expiry or when all contractual rights and obligations are transferred.

Hedge accounting

The Group does not generally apply hedge accounting in respect of forward foreign exchange contracts or commodity swaps held to manage the cash flow exposures of forecast transactions denominated in foreign currencies or in commodities respectively.

The Group applies hedge accounting in respect of transactions entered into to manage the fair value and cash flow exposures of its borrowings. Forward foreign exchange contracts are held to manage the fair value exposures of borrowings denominated in foreign currencies and are designated as fair value hedges. Interest rate swaps are held to manage the interest rate exposures and are designated as fair value or cash flow hedges of fixed and floating rate borrowings respectively.

Changes in the fair values of derivatives designated as fair value hedges and changes in fair value of the related hedged item are recognised directly in the income statement.

Changes in the fair values of derivatives that are designated as cash flow hedges and are effective are recognised directly in equity. Any ineffectiveness in the hedging relationships is included in the income statement. The amounts deferred in equity are recognised in the income statement to match the recognition of the hedged item.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, exercised, or no longer qualifies for hedge accounting. At that time, for cash flow hedges and if the forecast transaction remains probable, any cumulative gain or loss on the hedging instrument recognised in equity is retained in equity until the forecast transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss previously recognised in equity is transferred to the income statement.

The portion of a gain or loss on an instrument used to hedge a net investment in a foreign operation that is determined to be an effective hedge is recognised directly in equity. The ineffective portion is recognised immediately in the income statement. Gains and losses accumulated in the translation reserve will be recycled to profit when the foreign operation is sold.

Business combinations and goodwill

On the acquisition of a business, fair values are attributed to the identifiable assets and liabilities and contingent liabilities unless the fair value cannot be measured reliably, in which case the value is subsumed into goodwill. Where fair values of acquired contingent liabilities cannot be measured reliably, the assumed contingent liability is not recognised but is disclosed in the same manner as other contingent liabilities.

Goodwill recognised represents the excess of the fair value of the purchase consideration over the fair value to the Group of the net of the identifiable assets acquired and the liabilities assumed. On transition to IFRS on 1 January 2004, business combinations were not retrospectively adjusted to comply with Adopted IFRS and goodwill was recognised based on the carrying value under the previous accounting policies. Goodwill in respect of the acquisition of a subsidiary is recognised as an intangible asset. Goodwill arising on the acquisition of joint arrangements and associates is included in the carrying value of the investment.

Certification costs and participation fees

Costs incurred in respect of meeting regulatory certification requirements for new civil aero engine/aircraft combinations including payments made to airframe manufacturers for this and participation fees are carried forward in intangible assets to the extent that they can be recovered out of future sales and are charged to the income statement over the programme life on a straight-line basis, up to a maximum of 15 years from the entry into service of the product.

Research and development

In accordance with IAS 38 *Intangible Assets*, expenditure incurred on research and development is distinguished as relating either to a research phase or to a development phase.

All research phase expenditure is charged to the income statement. Development expenditure is capitalised as an internally generated intangible asset only if it meets strict criteria, relating in particular to technical feasibility and generation of future economic benefits. As described on page 123, the Group considers that it is not possible to distinguish reliably between research and development activities until relatively late in the programme.

Expenditure capitalised is amortised over its useful economic life on a straight-line basis, up to a maximum of 15 years from the entry into service of the product.

Notes to the consolidated financial statements continued

1 Accounting policies continued

Contractual aftermarket rights

As described under key judgements on page 121, the Group may sell OE to customers at a price below its cost, on the basis that it also receives valuable aftermarket rights. Such a sale is considered to give rise to an intangible asset which is recognised, in accordance with IAS 38, at the same time as the revenue at an amount equal to the cash deficit and is amortised on a straight-line basis over the period that highly probable aftermarket sales are expected to be earned.

Customer relationships

The fair value of customer relationships recognised as a result of a business combination relate to the acquired company's established relationships with its existing customers that result in repeat purchases and customer loyalty. Amortisation occurs on a straight-line basis over its useful economic life, up to a maximum of 15 years.

Software

The cost of acquiring software that is not specific to an item of property, plant and equipment is classified as an intangible asset and amortised on a straight-line basis over its useful economic life, up to a maximum of five years.

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and any provision for impairment in value.

Depreciation is provided on a straight-line basis to write off the cost, less the estimated residual value, of property, plant and equipment over their estimated useful lives. No depreciation is provided on assets in the course of construction. Estimated useful lives are as follows:

- Land and buildings, as advised by the Group's professional advisers:
 - freehold buildings – five to 45 years (average 26 years);
 - leasehold buildings – lower of adviser's estimates or period of lease;
 - no depreciation is provided on freehold land.
- Plant and equipment – five to 25 years (average 12 years).
- Aircraft and engines – five to 20 years (average 13 years).

Where the Group obtains effective control of customers' installed engines as a result of a TotalCare Flex arrangement, the fair value of these engines is recognised as an addition (shown separately in note 10). The corresponding liability is recognised either as deferred revenue or a financial liability depending on the precise nature of the arrangement.

Operating leases

Payments made and rentals received under operating lease arrangements are charged/credited to the income statement on a straight-line basis.

Impairment of non-current assets

Impairment of non-current assets is considered in accordance with IAS 36 *Impairment of Assets*. Where the asset does not generate cash flows that are independent of other assets, impairment is considered for the cash-generating unit to which the asset belongs. Goodwill and intangible assets not yet available for use are tested for impairment annually. Other intangible assets, property, plant and equipment and investments are assessed for any indications of impairment annually. If any indication of impairment is identified, an impairment test is performed to estimate the recoverable amount.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be below the carrying value, the carrying value is reduced to the recoverable amount and the impairment loss recognised as an expense. The recoverable amount is the higher of value in use or fair value less costs to sell, if this is readily available. The value in use is the present value of future cash flows using a pre-tax discount rate that reflects the time value of money and the risk specific to the asset.

Inventories

Inventories and work in progress are valued at the lower of cost and net realisable value on a first-in, first-out basis. Cost comprises direct materials and, where applicable, direct labour costs and those overheads, including depreciation of property, plant and equipment, that have been incurred in bringing the inventories to their present location and condition. Net realisable value represents the estimated selling prices less all estimated costs of completion and costs to be incurred in marketing, selling and distribution.

Cash and cash equivalents

Cash and cash equivalents include cash at bank and in hand, investments in money-market funds and short-term deposits with a maturity of three months or less on inception. The Group considers overdrafts (repayable on demand) to be an integral part of its cash management activities and these are included in cash and cash equivalents for the purposes of the cash flow statement.

Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event, and it is probable that the Group will be required to settle that obligation. Provisions are measured at the Directors' best estimate of the expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

1 Accounting policies continued

Post-retirement benefits

Pensions and similar benefits (principally healthcare) are accounted for under IAS 19 *Employee Benefits*.

For defined benefit plans, obligations are measured at discounted present value, using a discount rate derived from high-quality corporate bonds denominated in the currency of the plan, whilst plan assets are recorded at fair value. Surpluses in schemes are recognised as assets only if they represent economic benefits available to the Group in the future. A liability is recognised to the extent that the minimum funding requirements in respect of past service will give rise to an unrecognisable surplus.

The service and financing costs of such plans are recognised separately in the income statement:

- Current service costs are spread systematically over the lives of employees.
- Past service costs and settlements are recognised immediately.
- Financing costs are recognised in the periods in which they arise.

Actuarial gains and losses and movements in unrecognised surpluses and minimum funding liabilities are recognised immediately in OCI.

Payments to defined contribution schemes are charged as an expense as they fall due.

Share-based payments

The Group provides share-based payment arrangements to certain employees. These are principally equity-settled arrangements and are measured at fair value (excluding the effect of non-market based vesting conditions) at the date of grant. The fair value is expensed on a straight-line basis over the vesting period. The amount recognised as an expense is adjusted to reflect the actual number of shares or options that will vest, except where additional shares vest as a result of the total shareholder return (TSR) performance condition in the Performance Share Plan (PSP).

Cash-settled share options (grants in the International ShareSave plan) are measured at fair value at the balance sheet date. The Group recognises a liability at the balance sheet date based on these fair values, taking into account the estimated number of options that will actually vest and the relative completion of the vesting period. Changes in the value of this liability are recognised in the income statement for the year.

The cost of shares of Rolls-Royce Holdings plc held by the Group for the purpose of fulfilling obligations in respect of employee share plans is deducted from equity in the consolidated balance sheet. See note 21 for a further description of the share-based payment plans.

Customer financing support

In connection with the sale of its products, the Group will, on occasion, provide financing support for its customers. These arrangements fall into two categories: credit-based guarantees and asset-value guarantees. In accordance with the requirements of IAS 39 and IFRS 4 *Insurance Contracts*, credit-based guarantees are treated as insurance contracts. The Group considers asset-value guarantees to be non-financial liabilities and accordingly these are also treated as insurance contracts. As described on page 123, the Directors consider the likelihood of crystallisation in assessing whether provision is required for any contingent liabilities.

The Group's contingent liabilities relating to financing arrangements are spread over many years and relate to a number of customers and a broad product portfolio, and are reported on a discounted basis.

Revisions to Adopted IFRS in 2016

There were no changes to accounting standards that had a material impact on the 2016 financial statements.

Revisions to IFRS not applicable in 2016

Standards and interpretations issued by the IASB are only applicable if endorsed by the EU.

IFRS 9 *Financial Instruments* will simplify the classification of financial assets for measurement purposes, but is not anticipated to have a significant impact on the financial statements.

Notes to the consolidated financial statements continued

1 Accounting policies continued

IFRS 15 *Revenue from Contracts with Customers* (effective for the year beginning 1 January 2018), provides a single, principles-based five-step model to be applied to all sales contracts, based on the transfer of control of goods and services to customers. It replaces the separate models for goods, services and construction contracts currently included in IAS 11 *Construction Contracts* and IAS 18 *Revenue*.

The Group has undertaken significant analysis of how IFRS 15 should be implemented and has taken tentative accounting policy decisions. Based on this analysis, we expect that adoption of IFRS 15 will have a significant impact on the timing of recognition of revenue on individual long-term contracts, most particularly in the Civil Aerospace business. The most significant changes are:

- IFRS 15 contains more specific requirements on the combination of contracts. Contracts can only be combined if they are with the same counterparty or related counterparties. The existing standards require contracts with different counterparties to be combined where that reflects the overall substance of a transaction. As a result, it will no longer be possible to link contracts entered into at the same time for: (i) installed OE, with an airframer; and (ii) long-term service agreements (LTSAs), relating to that OE, with the aircraft operator.
- For similar reasons, it will no longer be possible to recognise an intangible asset in respect of contractual aftermarket rights (relating to future aftermarket business with an operator) when OE is sold to an airframer.
- For each performance obligation identified, IFRS 15 requires revenue to be recognised based on the transfer of control of the relevant goods or services. In contrast, under the existing standards, revenue is recognised based on when risk and reward is transferred. As a result it will no longer be possible to use flying hours (or equivalent) as a basis for measuring the stage of completion of LTSAs.
- Compared to IAS 11, IFRS 15 includes only limited guidance on accounting for costs incurred to fulfil a performance obligation and in general these will be recognised as incurred. It is no longer possible to defer or accrue costs to report a consistent margin percentage over the term of the LTSAs.

In summary, the impact of these changes will be that, upon adoption of IFRS 15:

- Revenues and costs relating to deliveries of engines will be recognised when they are delivered. The revenue recognised will comprise that included in the contract with the airframer reduced (if applicable) by any OE concession agreed with the operator (which IFRS 15 describes as a payment to a 'customer's customer'). Consequently, the revenues and costs recognised on OE deliveries will more closely match the related cash flows. No contractual aftermarket revenue will be allocated to the OE delivery (where contracts are currently combined – 'linked accounting') and no intangible asset will be recognised (where contracts are not currently combined – 'unlinked accounting'). This will result in a loss being recognised on engine deliveries when the direct costs exceed the direct revenues.
- Revenues on LTSAs will be recognised as services are performed rather than as the equipment is used (engine flying hours) as is the case under the current accounting policy. The stage of completion will be measured using the actual costs incurred to date compared to the estimated costs to complete the performance obligation. In practice the bulk of the revenue and costs will relate to overhaul activity which occurs at distinct points of time during the period of the LTSA. As the first major overhaul typically occurs some years after delivery, this change will generally defer the recognition of revenue on LTSAs, as compared to the current accounting policy.

Taken together, had IFRS 15 been applicable with effect from 1 January 2015, the Group currently estimates the results for the year ended 31 December 2015 would have been as follows:

	IAS 11 and IAS 18		IFRS 15	
	Reported £bn	Underlying £bn	Reported £bn	Underlying £bn
Revenue				
Civil Aerospace original equipment		3.3		2.6
Civil Aerospace aftermarket services		3.7		3.5
Other segments		6.4		6.4
Total revenue	13.7	13.4	12.8	12.5
Gross profit				
Civil Aerospace		1.5		0.6
Other segments		1.7		1.7
Total gross profit	3.3	3.2	2.4	2.3
Profit before financing and taxation	1.5	1.5	0.6	0.6
Net financing	(1.3)	(0.1)	(1.3)	(0.1)
Taxation	(0.1)	(0.3)	0.1	(0.1)
Profit for the year	0.1	1.1	(0.6)	0.4
Net assets	5.0		2.0	

1 Accounting policies continued

The Group plans to adopt IFRS 15 in 2018 using the 'full' retrospective approach. The comparative 2017 results included in the 2018 financial statements will be restated, with an adjustment to equity as at 1 January 2017.

The Group will continue to work during 2017 to design, implement and refine procedures to apply the new requirements of IFRS 15 and to finalise accounting policy choices. As a result of this ongoing work, it is possible that some changes to the impact above may result.

IFRS 16 *Leases* (effective for the year ending 31 December 2019, not yet endorsed by the EU) will require all leases to be recognised on the balance sheet. Currently, IAS 17 *Leases* only requires leases categorised as finance leases to be recognised on the balance sheet, with leases categorised as operating leases not recognised. In broad terms, the impact will be to recognise a lease liability and corresponding asset for the operating lease commitments set out in note 22.

The Group does not consider that any other standards, amendments or interpretations issued by the IASB, but not yet applicable, will have a significant impact on the financial statements.

2 Segmental analysis

The analysis by business segment is presented in accordance with IFRS 8 *Operating Segments*, on the basis of those segments whose operating results are regularly reviewed by the Board (the Chief Operating Decision Maker as defined by IFRS 8), as follows:

Civil Aerospace	– development, manufacture, marketing and sales of commercial aero engines and aftermarket services.
Defence Aerospace	– development, manufacture, marketing and sales of military aero engines and aftermarket services.
Power Systems	– development, manufacture, marketing and sales of reciprocating engines and power systems.
Marine	– development, manufacture, marketing and sales of marine-power propulsion systems and aftermarket services.
Nuclear	– development, manufacture, marketing and sales of nuclear systems for civil power generation and naval propulsion systems.

The operating results are reviewed by the Board and are prepared on an underlying basis, which the Board considers reflects better the economic substance of the Group's trading during the year and provides financial measures that, together with the results prepared in accordance with Adopted IFRS, allow better analysis of the factors affecting the year's results compared to the prior year. The principles adopted to determine underlying results are:

Underlying revenues and costs

Where revenues and costs are denominated in a currency other than the functional currency of the Group undertaking and the Group hedges the net exposure, these reflect the achieved exchange rates arising on derivative contracts settled to cover the net exposure. These achieved exchange rates are applied to all relevant revenues and costs, including those for which there is a natural offsetting position, rather than translating the offsetting transactions at spot rates. The underlying profits would be the same under both approaches, but the Board considers that the approach taken provides a better indication of trends over time.

Underlying profit before financing

In addition to the impact of exchange rates on revenues and costs above, adjustments have been made to exclude one-off past service costs or credits on post-retirement schemes, exceptional restructuring costs (associated with the substantial closure or exit of a site, facility or line of business or other major transformation activities), the effect of acquisition accounting, the effect of business disposals, the impairment of goodwill, and in 2016 financial penalties from agreements with investigating bodies.

Underlying profit before taxation

In addition to those adjustments in underlying profit before financing:

- Includes amounts realised from settled derivative contracts and revaluation of relevant assets and liabilities to exchange rates forecast to be achieved from future settlement of derivative contracts.
- Excludes unrealised amounts arising from revaluations required by IAS 39 *Financial Instruments: Recognition and Measurement*, changes in value of financial RRSA contracts arising from changes in forecast payments and the net impact of financing costs related to post-retirement scheme benefits.

Taxation

The tax effect of the adjustments above are excluded from the underlying tax charge. In addition changes in the amount of recoverable advance corporation tax recognised and the impact of changes in tax rates are also excluded.

This analysis also includes a reconciliation of the underlying results to those reported in the consolidated income statement.

Notes to the consolidated financial statements continued

2 Segmental analysis continued

	Civil £m	Defence £m	Power Systems £m	Marine £m	Nuclear £m	Inter- segment £m	Total reportable segments £m
Year ended 31 December 2016							
Underlying revenue from sale of original equipment	3,272	823	1,609	575	346	(33)	6,592
Underlying revenue from aftermarket services	3,634	1,229	751	437	415	(35)	6,431
Total underlying revenue at 2015 exchange rates	6,906	2,052	2,360	1,012	761	(68)	13,023
Translation to 2016 exchange rates	161	157	295	102	16	(8)	723
Total underlying revenue	7,067	2,209	2,655	1,114	777	(76)	13,746
Gross profit	1,129	530	628	216	117	–	2,620
Commercial and administrative costs	(339)	(127)	(305)	(207)	(67)	–	(1,045)
Restructuring	(11)	10	–	3	–	–	2
Research and development costs	(549)	(68)	(157)	(39)	(6)	–	(819)
Share of results of joint ventures and associates	96	15	1	–	–	–	112
Underlying profit/(loss) before financing and taxation at 2015 exchange rates	326	360	167	(27)	44	–	870
Translation to 2016 exchange rates	41	24	24	–	1	–	90
Underlying profit/(loss) before financing and taxation	367	384	191	(27)	45	–	960
Segment assets	13,030	1,755	3,828	1,518	351	(1,223)	19,259
Investments in joint ventures and associates	826	4	9	2	1	–	842
Segment liabilities	(14,510)	(1,996)	(1,151)	(903)	(435)	1,223	(17,772)
Net (liabilities)/assets	(654)	(237)	2,686	617	(83)	–	2,329
Investment in intangible assets, property, plant and equipment and joint ventures and associates	1,215	112	123	37	19	–	1,506
Depreciation, amortisation and impairment	491	67	207	239	39	–	1,043
Year ended 31 December 2015							
Underlying revenue from sale of original equipment	3,258	801	1,618	773	251	(53)	6,648
Underlying revenue from aftermarket services	3,675	1,234	767	551	436	(53)	6,610
Total underlying revenue	6,933	2,035	2,385	1,324	687	(106)	13,258
Gross profit	1,526	579	656	260	111	7	3,139
Commercial and administrative costs	(296)	(124)	(296)	(201)	(53)	–	(970)
Restructuring	(7)	(8)	(4)	(16)	(2)	–	(37)
Research and development costs	(515)	(73)	(162)	(28)	14	–	(764)
Share of results of joint ventures and associates	104	19	–	–	–	–	123
Underlying profit before financing and taxation	812	393	194	15	70	7	1,491
Segment assets	11,229	1,437	3,376	1,481	300	(850)	16,973
Investments in joint ventures and associates	545	12	8	7	3	–	575
Segment liabilities	(8,709)	(1,698)	(1,017)	(783)	(324)	850	(11,681)
Net assets/(liabilities)	3,065	(249)	2,367	705	(21)	–	5,867
Investment in intangible assets, property, plant and equipment and joint ventures and associates	668	84	108	36	18	–	914
Depreciation, amortisation and impairment	410	58	197	111	23	–	799

2 Segmental analysis continued

RECONCILIATION TO REPORTED RESULTS

	Total reportable segments £m	Other business ¹ and corporate £m	Total underlying £m	Underlying adjustments and foreign exchange £m	Group at actual exchange rates £m
Year ended 31 December 2016					
Revenue from sale of original equipment	6,592	20	6,612	976	7,588
Revenue from aftermarket services	6,431	15	6,446	921	7,367
Total underlying revenue at 2015 exchange rates	13,023	35	13,058	1,897	14,955
Translation to 2016 exchange rates	723	2	725	(725)	–
Total revenue	13,746	37	13,783	1,172	14,955
Gross profit	2,620	6	2,626	422	3,048
Other operating income	–	–	–	5	5
Commercial and administrative costs	(1,045)	(51)	(1,096)	(1,112)	(2,208)
Restructuring	2	–	2	(2)	–
Research and development costs	(819)	7	(812)	(106)	(918)
Share of results of joint ventures and associates	112	(5)	107	10	117
Profit/(loss) before financing and taxation at 2015 exchange rates	870	(43)	827	(783)	44
Translation to 2016 exchange rates	90	(2)	88	(88)	–
Loss on disposal of businesses	–	–	–	(3)	(3)
Profit/(loss) before financing and taxation	960	(45)	915	(874)	41
Net financing	–	(102)	(102)	(4,575)	(4,677)
Profit/(loss) before taxation	–	(147)	813	(5,449)	(4,636)
Taxation	–	(261)	(261)	865	604
Profit/(loss) for the year	–	–	552	(4,584)	(4,032)
Attributable to:					
Ordinary shareholders	–	–	552	(4,584)	(4,032)
Non-controlling interests	–	–	–	–	–
Year ended 31 December 2015					
Revenue from sale of original equipment	6,648	76	6,724	215	6,939
Revenue from aftermarket services	6,610	20	6,630	156	6,786
Total revenue	13,258	96	13,354	371	13,725
Gross profit	3,139	64	3,203	74	3,277
Other operating income	–	–	–	10	10
Commercial and administrative costs	(970)	(55)	(1,025)	(45)	(1,070)
Restructuring	(37)	(2)	(39)	39	–
Research and development costs	(764)	(1)	(765)	(53)	(818)
Share of results of joint ventures and associates	123	(5)	118	(18)	100
Profit on disposal of businesses	–	–	–	2	2
Profit before financing and taxation	1,491	1	1,492	9	1,501
Net financing	–	(60)	(60)	(1,281)	(1,341)
Profit/(loss) before taxation	–	(59)	1,432	(1,272)	160
Taxation	–	(351)	(351)	275	(76)
Profit/(loss) for the year	–	(410)	1,081	(997)	84
Attributable to:					
Ordinary shareholders	–	–	1,080	(997)	83
Non-controlling interests	–	–	1	–	1

¹ Other businesses comprise former Energy businesses not included in the disposal to Siemens in 2014.

Notes to the consolidated financial statements continued

2 Segmental analysis continued

UNDERLYING ADJUSTMENTS

	2016				2015			
	Revenue £m	Profit before financing £m	Net financing £m	Taxation £m	Revenue £m	Profit before financing £m	Net financing £m	Taxation £m
Underlying performance	13,783	915	(102)	(261)	13,354	1,492	(60)	(351)
Revenue recognised at exchange rate on date of transaction	1,172	–	–	–	371	–	–	–
Realised losses/(gains) on settled derivative contracts ¹	–	426	162	(107)	–	287	(35)	(51)
Net unrealised fair value changes to derivative contracts ²	–	–	(4,420)	792	–	(9)	(1,306)	270
Effect of currency on contract accounting	–	77	–	(14)	–	(9)	–	2
Revaluation of trading assets and liabilities	–	67	(313)	56	–	(13)	20	(6)
Financial RRSAs – foreign exchange differences and changes in forecast payments	–	–	(8)	(1)	–	–	8	(1)
Effect of acquisition accounting ³	–	(115)	–	35	–	(124)	–	31
Impairment of goodwill	–	(219)	–	–	–	(75)	–	–
Pension restructuring ⁴	–	(306)	–	107	–	–	–	–
Net post-retirement scheme financing	–	–	3	(2)	–	–	32	(12)
Disposal of businesses	–	(3)	–	–	–	2	–	15
Exceptional restructuring	–	(129)	–	34	–	(49)	–	11
Financial penalties from agreements with investigating bodies	–	(671)	–	–	–	–	–	–
Other	–	(1)	1	(5)	–	(1)	–	(2)
Reduction in rate of UK corporation tax	–	–	–	(30)	–	–	–	18
Total underlying adjustments	1,172	(874)	(4,575)	865	371	9	(1,281)	275
Reported per consolidated income statement	14,955	41	(4,677)	604	13,725	1,501	(1,341)	(76)

¹ Realised (gains)/losses on settled derivative contracts include adjustments to reflect the losses/(gains) in the same year as the related trading cash flows.

² Unrealised fair value changes to derivative contracts included in profit before financing: (i) include those of equity accounted joint ventures; and (ii) exclude those for which the related trading contracts have been cancelled when the fair value changes are recognised immediately in underlying profit.

³ The adjustment eliminates charges recognised as a result of recognising assets in acquired businesses at fair value.

⁴ In the UK, tax is provided on pension surpluses at a rate of 35%, which is the relevant rate if the surpluses were to be returned to the Group.

The reconciliation of underlying earnings per ordinary share is shown in note 6.

RECONCILIATION TO THE BALANCE SHEET

	2016 £m	2015 £m
Reportable segment assets	19,259	16,973
Investments in joint ventures and associates	844	576
Other businesses and corporate	49	119
Cash and cash equivalents and short-term investments	2,774	3,178
Fair value of swaps hedging fixed rate borrowings	358	74
Income tax assets	908	341
Post-retirement scheme surpluses	1,346	1,063
Total assets	25,538	22,324
Reportable segment liabilities	(17,772)	(11,681)
Other businesses and corporate	(183)	(120)
Borrowings	(3,357)	(3,302)
Fair value of swaps hedging fixed rate borrowings	–	(61)
Income tax liabilities	(987)	(1,004)
Post-retirement scheme deficits	(1,375)	(1,140)
Total liabilities	(23,674)	(17,308)
Net assets	1,864	5,016

2 Segmental analysis continued

GEOGRAPHICAL SEGMENTS

The Group's revenue by destination is as follows:

	2016 £m	2015 £m
United Kingdom	1,821	1,780
Germany	850	642
Switzerland	745	782
France	294	249
Spain	289	200
Norway	279	280
Italy	232	222
Russia	75	59
Rest of Europe	700	786
Europe	5,285	5,000
United States	4,176	3,591
Canada	341	475
North America	4,517	4,066
South America	314	425
Saudi Arabia	486	365
Rest of Middle East	570	445
Middle East	1,056	810
China	1,417	1,236
Singapore	518	549
Japan	333	136
South Korea	251	278
Malaysia	117	78
India	99	99
Rest of Asia	508	546
Asia	3,243	2,922
Africa	290	144
Australasia	188	278
Other	62	80
	14,955	13,725

No single customer represented 10% or more of the Group's revenue.

The carrying amounts of the Group's non-current assets, excluding financial instruments, deferred tax assets and post-employment benefit surpluses, by the geographical area in which the assets are located, are as follows:

	2016 £m	2015 £m
United Kingdom	4,643	4,072
Germany	2,714	2,339
United States	1,046	835
Nordic countries	512	598
Other	1,161	900
	10,076	8,744

Notes to the consolidated financial statements continued

3 Research and development

	2016 £m	2015 £m
Expenditure in the year	(937)	(831)
Capitalised as intangible assets	99	51
Amortisation of capitalised costs	(147)	(136)
Impairment of capitalised costs	(2)	–
Net research and development cost	(987)	(916)
Entry fees received	73	83
Entry fees deferred in respect of charges in future years	(40)	(28)
Recognition of previously deferred entry fees	36	43
Net cost recognised in the income statement	(918)	(818)
Underlying adjustments relating to effects of acquisition accounting and foreign exchange	56	53
Net underlying cost recognised in the income statement	(862)	(765)
Translation to 2015 exchange rates	50	–
Net underlying cost at 2015 exchange rates	(812)	(765)

4 Net financing

		2016		2015	
	Notes	Per consolidated income statement £m	Underlying financing ² £m	Per consolidated income statement £m	Underlying financing ² £m
Financing income					
Interest receivable		14	14	12	12
Net fair value gains on foreign currency contracts ¹	17	1	–	–	–
Financial RRSAs – foreign exchange differences and changes in forecast payments	17	23	–	21	–
Net fair value gains on commodity contracts ¹	17	16	–	–	–
Financing on post-retirement scheme surpluses	19	42	–	65	–
Net foreign exchange gains ³		–	–	17	32
		96	14	115	44
Financing costs					
Interest payable		(77)	(77)	(71)	(71)
Net fair value losses on foreign currency contracts ¹	17	(4,437)	–	(1,217)	–
Financial RRSAs – foreign exchange differences and changes in forecast payments	17	(31)	–	(13)	–
Financial charge relating to financial RRSAs	17	(6)	(6)	(8)	(8)
Net fair value losses on commodity contracts ¹	17	–	–	(89)	–
Financing on post-retirement scheme deficits	19	(39)	–	(33)	–
Net foreign exchange losses		(145)	–	–	–
Other financing charges		(38)	(33)	(25)	(25)
		(4,773)	(116)	(1,456)	(104)
Net financing		(4,677)	(102)	(1,341)	(60)
Analysed as:					
Net interest payable		(63)	(63)	(59)	(59)
Net fair value losses on derivative contracts		(4,420)	–	(1,306)	–
Net post-retirement scheme financing		3	–	32	–
Net other financing		(197)	(39)	(8)	(1)
Net financing		(4,677)	(102)	(1,341)	(60)
¹ Net loss on fair value items through profit or loss		(4,420)	–	(1,306)	–

² See note 2.

³ The underlying financing income includes nil (2015: £34m) from gains on settlement of foreign exchange contracts following the receipt in the UK of dividends from overseas subsidiaries.

5 Taxation

	UK		Overseas		Total	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Current tax						
Current tax charge for the year	12	9	187	157	199	166
Less double tax relief	—	—	—	—	—	—
	12	9	187	157	199	166
Adjustments in respect of prior years	(8)	6	4	(23)	(4)	(17)
	4	15	191	134	195	149
Deferred tax						
Deferred tax credit for the year	(804)	(37)	(44)	(23)	(848)	(60)
Adjustments in respect of prior years	(5)	10	24	(5)	19	5
Deferred tax charge/(credit) resulting from reduction in tax rates	30	(18)	—	—	30	(18)
	(779)	(45)	(20)	(28)	(799)	(73)
Recognised in the income statement	(775)	(30)	171	106	(604)	76

OTHER TAX (CHARGES)/CREDITS

	OCI				Equity	
	Items that will not be reclassified		Items that may be reclassified			
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Deferred tax:						
Movement in post-retirement schemes	(179)	257				
Share-based payments – direct to equity					(2)	(6)
Net investment hedge			4	(2)		
	(179)	257	4	(2)	(2)	(6)

TAX RECONCILIATION

	2016 £m	2015 £m
(Loss)/profit before taxation	(4,636)	160
Less share of results of joint ventures and associates (note 11)	(117)	(100)
(Loss)/profit before taxation excluding joint ventures and associates	(4,753)	60
Nominal tax (credit)/charge at UK corporation tax rate 20% (2015: 20.25%)	(951)	12
UK tax rate differential ¹	41	20
Overseas rate differences ²	25	43
Impairment of goodwill	44	13
Financial penalties from agreements with investigating bodies	153	—
Other permanent differences	11	5
Benefit to deferred tax from previously unrecognised tax losses and temporary differences	(2)	(7)
Tax losses in year not recognised in deferred tax	30	20
Adjustments in respect of prior years ³	15	(12)
Reduction in closing deferred taxes resulting from decrease in tax rates	30	(18)
	(604)	76
Underlying items (note 2)	261	351
Non-underlying items	(865)	(275)
	(604)	76

¹ The UK tax rate differential arises on the difference between the appropriate deferred tax rate and the UK statutory tax rate.

² Overseas rate differences mainly relate to tax on profits in countries, such as the US, which have higher tax rates than the UK.

³ The adjustments in respect of prior years include a £14m charge relating to losses in Norway no longer recognised due to the current uncertainty in the oil & gas market (see note 9).

Notes to the consolidated financial statements continued

5 Taxation continued

DEFERRED TAXATION ASSETS AND LIABILITIES

	2016 £m	2015 £m
At 1 January	(521)	(859)
Amount credited to income statement	799	73
Amount (charged)/credited to other comprehensive income	(175)	255
Amount charged to equity	(2)	(6)
Exchange differences	(1)	16
At 31 December	100	(521)
Deferred tax assets	876	318
Deferred tax liabilities	(776)	(839)
	100	(521)

The analysis of the deferred tax position is as follows:

	At 1 January 2016 £m	Recognised in income statement £m	Recognised in OCI £m	Recognised in equity £m	Exchange differences £m	At 31 December 2016 £m
Intangible assets	(392)	11	—	—	(8)	(389)
Property, plant and equipment	(190)	14	—	—	(15)	(191)
Other temporary differences	21	15	4	—	(12)	28
Amounts recoverable on contracts	(539)	27	—	—	—	(512)
Pensions and other post-retirement scheme benefits	(90)	103	(179)	—	35	(131)
Foreign exchange and commodity financial assets and liabilities	306	620	—	—	—	926
Losses	343	(1)	—	(2)	(1)	339
R&D expenditure credit	20	10	—	—	—	30
	(521)	799	(175)	(2)	(1)	100

	At 1 January 2015 £m	Recognised in income statement £m	Recognised in OCI £m	Recognised in equity £m	Exchange differences £m	At 31 December 2015 £m
Intangible assets	(455)	52	—	—	11	(392)
Property, plant and equipment	(195)	7	—	—	(2)	(190)
Other temporary differences	97	(69)	(2)	(7)	2	21
Amounts recoverable on contracts	(526)	(13)	—	—	—	(539)
Pensions and other post-retirement scheme benefits	(324)	(30)	257	—	7	(90)
Foreign exchange and commodity financial assets and liabilities	135	171	—	—	—	306
Losses	393	(49)	—	1	(2)	343
R&D expenditure credit	16	4	—	—	—	20
	(859)	73	255	(6)	16	(521)

UNRECOGNISED DEFERRED TAX ASSETS

	2016 £m	2015 £m
Advance corporation tax	182	182
Losses and other unrecognised deferred tax assets	71	36
Deferred tax not recognised on unused tax losses and other items on the basis that future economic benefit is uncertain ¹	253	218

¹ Advance corporation tax, tax losses and other deductible temporary differences are not expected to expire under current legislation.

DEFERRED TAXATION ASSETS AND LIABILITIES

Following announcements in the Summer Budget 2015 and the Budget 2016, the UK corporation tax rate will reduce to 19% from 1 April 2017 and 17% from 1 April 2020. The Summer Budget 2015 had originally announced that the rate would reduce to 18% from 1 April 2020. This reduction was substantively enacted on 26 October 2015 and so the prior year deferred tax assets and liabilities were calculated at this rate. The subsequent announcement in the Budget 2016 that the rate will reduce to 17% from 1 April 2020 was substantively enacted on 6 September 2016. As this reduction was substantively enacted prior to the year end, the closing deferred tax assets and liabilities have been calculated at this rate.

The resulting charges or credits have been recognised in the income statement except to the extent that they relate to items previously charged or credited to OCI or equity. Accordingly, in 2016, £30m has been charged to the income statement (2015: £18m credited) and £2m has been charged directly to equity (2015: £3m).

5 Taxation continued

The temporary differences associated with investments in subsidiaries, joint ventures and associates, for which a deferred tax liability has not been recognised, aggregate to £276m (2015: £347m). No deferred tax liability has been recognised on the potential withholding tax due on the remittance of undistributed profits as the Group is able to control the timing of such remittances and it is probable that consent will not be given in the foreseeable future.

6 Earnings per ordinary share

Basic earnings per ordinary share (EPS) are calculated by dividing the profit attributable to ordinary shareholders by the weighted average number of ordinary shares in issue during the year, excluding ordinary shares held under trust, which have been treated as if they had been cancelled.

Diluted EPS are calculated by adjusting the weighted average number of ordinary shares in issue during the year for the bonus element of share options.

	2016			2015		
	Basic	Potentially dilutive share options ¹	Diluted	Basic	Potentially dilutive share options	Diluted
(Loss)/profit attributable to ordinary shareholders (£m)	(4,032)	—	(4,032)	83	—	83
Weighted average number of ordinary shares (millions)	1,832	—	1,832	1,839	12	1,851
EPS (pence)	(220.08)	—	(220.08)	4.51	(0.03)	4.48

¹ As there is a loss, the effect of potentially dilutive ordinary shares is anti-dilutive.

The reconciliation between underlying EPS and basic EPS is as follows:

	2016		2015	
	Pence	£m	Pence	£m
Underlying EPS/Underlying profit attributable to ordinary shareholders	30.13	552	58.73	1,080
Total underlying adjustments to profit before tax (note 2)	(297.43)	(5,449)	(69.17)	(1,272)
Related tax effects	47.22	865	14.95	275
EPS/(Loss)/profit attributable to ordinary shareholders	(220.08)	(4,032)	4.51	83
Diluted underlying EPS	30.08	—	58.35	—

7 Employee information

	2016	2015
Average number of employees		
United Kingdom	22,300	23,200
Germany	10,700	10,700
United States	6,300	6,400
Nordics	3,400	3,800
Canada	1,000	1,100
Rest of world	6,200	5,300
	49,900	50,500
Civil Aerospace	23,800	23,100
Defence Aerospace	6,000	6,300
Power Systems	10,300	10,600
Marine	5,300	6,000
Nuclear	4,300	4,100
Other businesses and corporate ^{1,2}	200	400
	49,900	50,500
	£m	£m
Group employment costs³		
Wages, salaries and benefits	2,788	2,514
Social security costs	376	334
Share-based payments (note 21)	35	5
Pensions and other post-retirement scheme benefits (note 19)	623	299
	3,822	3,152

¹ Other businesses and corporate includes the Energy businesses not sold to Siemens in 2014 and corporate employees who do not provide a shared service to the segments. Where corporate functions provide such a service, employees have been allocated to the segments on an appropriate basis. 2015 figures have been restated on this basis.

² As described in note 1, the Group has reclassified certain joint ventures to joint operations from 1 January 2016. This increased the reported Group employees by 800.

³ Remuneration of key management personnel is shown in note 24.

Notes to the consolidated financial statements continued

8 Auditors' remuneration

Fees payable to the Company's auditors and its associates were as follows:

	2016 £m	2015 £m
Fees payable to the Company's auditors for the audit of the Company's annual financial statements ¹	0.3	0.3
Fees payable to the Company's auditors and its associates for the audit of the Company's subsidiaries pursuant to legislation ²	6.5	5.6
Total fees payable for audit services	6.8	5.9
Fees payable to the Company's auditors and its associates for other services:		
Audit related assurance services ³	0.6	1.3
Taxation compliance services	0.5	0.4
All other services	0.1	–
	8.0	7.6
Fees payable in respect of the Group's pension schemes:		
Audit	0.3	0.2

¹ The level of fees payable to the Company's auditors for the audit of the Company's annual financial statements reflects the fact that limited incremental work is required in respect of the audit of these financial statements. Rolls-Royce plc, a subsidiary of the Company, is also required to prepare consolidated financial statements and the fees payable to the Company's auditors for the audit of those financial statements, including the audit of the sub-consolidation, is included in the audit of the Company's subsidiaries pursuant to legislation.

² Audit fees for overseas entities are reported at the average exchange rate for the year. The weakening of sterling during 2016 gave rise to an increase of £0.4m compared to 2015.

³ This includes £0.3m (2015: £0.3m) for the review of the half-year report.

9 Intangible assets

	Goodwill £m	Certification costs and participation fees £m	Development expenditure £m	Contractual aftermarket rights £m	Customer relationships £m	Software £m	Other £m	Total £m
Cost								
At 1 January 2015	1,675	1,079	1,707	638	469	543	518	6,629
Exchange differences	(87)	(7)	(32)	–	(14)	–	(16)	(156)
Additions	–	73	55	161	–	79	40	408
Acquisitions of businesses	1	–	–	–	1	–	1	3
Disposals	–	–	–	–	–	(6)	–	(6)
At 1 January 2016	1,589	1,145	1,730	799	456	616	543	6,878
Exchange differences	284	26	116	–	84	16	66	592
Additions	–	154	100	208	–	116	53	631
Acquisitions of businesses	1	–	–	–	–	–	1	2
Disposals	–	–	(2)	–	–	(6)	–	(8)
At 31 December 2016	1,874	1,325	1,944	1,007	540	742	663	8,095
Accumulated amortisation								
At 1 January 2015	16	311	564	389	96	259	190	1,825
Exchange differences	(5)	(1)	(10)	–	(3)	–	(3)	(22)
Charge for the year ¹	–	63	137	55	46	68	38	407
Impairment	75	–	–	–	–	–	–	75
Reversal of impairment	–	–	–	(50)	–	–	–	(50)
Disposals	–	–	–	–	–	(2)	–	(2)
At 1 January 2016	86	373	691	394	139	325	225	2,233
Exchange differences	32	3	48	–	28	8	35	154
Charge for the year ¹	–	64	147	39	42	81	33	406
Impairment	219	–	2	–	–	–	1	222
At 31 December 2016	337	440	888	433	209	414	294	3,015
Net book value								
At 31 December 2016	1,537	885	1,056	574	331	328	369	5,080
At 31 December 2015	1,503	772	1,039	405	317	291	318	4,645
At 1 January 2015	1,659	768	1,143	249	373	284	328	4,804

¹ Charged to cost of sales except development costs, which are charged to research and development costs.

9 Intangible assets continued

GOODWILL

In accordance with the requirements of IAS 36 *Impairment of Assets*, goodwill is allocated to the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the business combination that gave rise to the goodwill as follows:

CASH-GENERATING UNIT (CGU) OR GROUP OF CGUs

	Primary reporting segment	2016 £m	2015 £m
Rolls-Royce Power Systems AG	Power Systems	871	739
Marine – arising from the acquisitions of Vinters Limited, Scandinavian Electric Holding AS and ODIM ASA	Marine	401	516
Rolls-Royce Deutschland Ltd & Co KG	Civil Aerospace	236	202
Other	Various	29	46
		1,537	1,503

Goodwill has been tested for impairment during 2016 on the following basis:

- The carrying values of goodwill have been assessed by reference to value in use. These have been estimated using cash flows from the most recent forecasts prepared by management, which are consistent with past experience and external sources of information on market conditions. Given the long-term and established nature of many of the Group's products (product lives are often measured in decades), these forecasts generally cover the next five-ten years. Growth rates for the period not covered by the forecasts are based on a range of growth rates (2.0-3.5%) that reflect the products, industries and countries in which the relevant CGU or group of CGUs operate.
- The key assumptions for the impairment tests are the discount rate and, in the cash flow projections, the programme assumptions, the growth rates and the impact of foreign exchange rates on the relationship between selling prices and costs. Impairment tests are performed using prevailing exchange rates.

Prior to 2016, goodwill in the Marine business was considered as separate CGUs, based on the original acquisitions (including ODIM ASA, Scandinavian Electric Holdings and Vinters Limited (formerly Vickers plc)). However, following re-organisations, including those resulting from the current transformation programme, we now consider that the Marine business (excluding the UK marine defence business) is a single CGU.

The Marine business has continued to be impacted by the low crude oil price and over supply of vessels to its offshore support customers. The downturn has been deeper and more prolonged than forecast a year ago and, as a consequence, the Group has recognised an impairment loss of £200m to the carrying value of goodwill of the CGU. This is included in cost of sales in the income statement, but excluded from the underlying results. The impairment loss is based on a value in use calculation using cash flows forecast over a ten-year period (which is considered to take account of the cyclical nature of the market). The impairment test indicated a recoverable amount of £473m (including allowance for identified risks of £18m) compared with a pre-impairment carrying value of £673m.

The Group has also recognised other impairments to goodwill of £19m, including £14m in relation to its North American civil nuclear business. This reflects the current weakness in the services market, although the Directors expect these to recover in the medium term.

The principal value in use assumptions for goodwill balances considered to be individually significant are:

- **Rolls-Royce Power Systems AG** – Discount rate **11.7%** (2015: 11.7%). Volume of equipment deliveries, pricing achieved and cost escalation. These are based on current and known future programmes, estimates of capture of market share and long-term economic forecasts. The principal foreign exchange exposures are on translating income in a variety of non-functional currencies into euros. For the purposes of the impairment test only, cash flows from recent management forecasts for a five-year period have been included. Cash flows beyond five years are assumed to grow at **2%** (2015: 2%). Reasonably possible changes in the key assumptions would cause the value in use of the goodwill to fall below its carrying value, which include a reduction in the level of cash generation of 13%, or an increase in the assumed discount rate of 1.5%. At 31 December 2016, the value in use exceeded the carrying value by £440m.
- **Marine business** – Discount rate **13%**, including an allowance of 0.8% to reflect uncertainties in market recovery and the achievement of cost savings, (2015: 13%). Volume of equipment deliveries, capture of aftermarket and cost escalation. These are based on current and known future programmes, estimates of customers' fleet requirements and long-term economic forecasts. The principal foreign exchange exposures are on translating income in a variety of non-functional currencies into Norwegian kroner. For the purposes of the impairment test only, cash flows beyond the ten-year forecasts are assumed to grow at **2.5%** (2015: 2.5%). Any further deterioration of the market would require additional impairment. For example if the market recovery were delayed by one year, compared to that assumed, this would result in an additional impairment of around £60m.
- **Rolls-Royce Deutschland Ltd & Co KG** – Discount rate **13%** (2015: 13%). Volume of engine deliveries, flying hours of installed fleet and cost escalation. These are based on current and known future programmes, estimates of customers' fleet requirements and long-term economic forecasts. The principal foreign exchange exposure is on translating US dollar income into euros. For the purposes of the impairment test only, cash flows beyond the ten-year forecasts are assumed to grow at **2.5%** (2015: 2.5%). The Directors do not consider that any reasonably possible change in the key assumptions would cause the value in use of the goodwill to fall below its carrying value. The overall level of business would need to reduce by around 70% to cause an impairment of this balance.

Notes to the consolidated financial statements continued

9 Intangible assets continued

OTHER INTANGIBLE ASSETS

Certification costs and participation fees, development costs and contractual aftermarket rights have been reviewed for impairment in accordance with the requirements of IAS 36 *Impairment of Assets*. Where an impairment test was considered necessary, it has been performed on the following basis:

- The carrying values have been assessed by reference to value in use. These have been estimated using cash flows from the most recent forecasts prepared by management, which are consistent with past experience and external sources of information on market conditions over the lives of the respective programmes.
- The key assumptions underlying cash flow projections are assumed market share, programme timings, unit cost assumptions, discount rates, and foreign exchange rates.
- The pre-tax cash flow projections have been discounted at **9-13%** (2015: 9-13%), based on the Group's weighted average cost of capital, adjusted for the estimated programme risk, for example taking account of whether or not the forecast cash flows arise from contracted business.

No impairment is required on this basis. However, a combination of adverse changes in assumptions (eg. market size and share, unit costs and programme delays) and other variables (eg. discount rate and foreign exchange rates), could result in impairment in future years.

10 Property, plant and equipment

	Land and buildings £m	Plant and equipment £m	Aircraft and engines £m	In course of construction £m	Total £m
Cost					
At 1 January 2015	1,334	3,600	321	795	6,050
Exchange differences	(20)	(39)	(2)	(3)	(64)
Additions	18	117	19	340	494
Acquisitions of businesses	–	1	–	–	1
Disposals of businesses	–	(1)	–	–	(1)
Reclassifications	81	335	7	(423)	–
Transferred to assets held for sale	(8)	(23)	(2)	–	(33)
Disposals/write-offs	(30)	(96)	(4)	(1)	(131)
At 1 January 2016	1,375	3,894	339	708	6,316
Exchange differences	141	352	12	55	560
Reclassification of joint ventures to joint operations	7	87	–	–	94
Additions – purchased	25	124	51	426	626
Additions – arising from TotalCare Flex contracts (non-cash)	–	–	75	–	75
Disposals of businesses	(1)	(3)	–	–	(4)
Reclassifications	131	230	63	(424)	–
Disposals/write-offs	(11)	(85)	(49)	–	(145)
At 31 December 2016	1,667	4,599	491	765	7,522
Accumulated depreciation					
At 1 January 2015	391	2,109	103	1	2,604
Exchange differences	(7)	(24)	(1)	–	(32)
Charge for the year ¹	48	299	26	–	373
Impairment	3	2	–	–	5
Disposals of businesses	–	(1)	–	–	(1)
Transferred to assets held for sale	(5)	(20)	(1)	–	(26)
Disposals/write-offs	(14)	(81)	(2)	–	(97)
At 1 January 2016	416	2,284	125	1	2,826
Exchange differences	44	182	4	–	230
Reclassification of joint ventures to joint operations	1	52	–	–	53
Charge for the year ¹	63	333	28	–	424
Impairment	1	–	–	1	2
Disposals of businesses	–	(2)	–	–	(2)
Reclassifications	–	(9)	9	–	–
Disposals/write-offs	(10)	(75)	(40)	–	(125)
At 31 December 2016	515	2,765	126	2	3,408
Net book value					
At 31 December 2016	1,152	1,834	365	763	4,114
At 31 December 2015	959	1,610	214	707	3,490
At 1 January 2015	943	1,491	218	794	3,446

¹ Depreciation charged during the year is included in the income statement or included in the cost of inventory as appropriate.

Notes to the consolidated financial statements continued

10 Property, plant and equipment continued

Property, plant and equipment includes:

	2016 £m	2015 £m
Net book value of finance leased assets:		
Land and buildings	5	5
Plant and equipment	6	7
Aircraft and engines	42	40
Assets held for use in operating leases:		
Cost	413	321
Depreciation	(108)	(87)
Net book value	305	234
Capital expenditure commitments	252	167
Cost of fully depreciated assets	1,059	853

The Group's share of equity accounted entities' capital commitments is **£72m** (2015: £75m).

11 Investments

COMPOSITION OF THE GROUP

The entities contributing to the Group's financial results are listed on pages 170 to 175.

NON-CONTROLLING INTERESTS

The Group does not have any material non-wholly owned subsidiaries.

EQUITY ACCOUNTED AND OTHER INVESTMENTS

	Equity accounted			Other
	Joint ventures £m	Associates £m	Total £m	Unlisted £m
At 1 January 2015	535	4	539	31
Exchange differences	7	—	7	(2)
Additions	12	3	15	6
Taxation paid by the Group	(3)	—	(3)	—
Share of retained profit/(loss)	42	(5)	37	—
Impairment	—	—	—	(2)
Share of OCI – may be reclassified to profit or loss	(19)	—	(19)	—
At 1 January 2016	574	2	576	33
Exchange differences	109	(2)	107	5
Increase in share in joint ventures	154	—	154	—
Other additions	20	10	30	—
Reclassification of joint ventures to joint operations	(57)	—	(57)	—
Share of retained profit/(loss)	44	(1)	43	—
Share of OCI – will not be reclassified to profit or loss	(2)	—	(2)	—
Share of OCI – may be reclassified to profit or loss	(7)	—	(7)	—
At 31 December 2016	835	9	844	38

11 Investments continued

The following joint ventures are considered to be individually material to the Group:

	Principal location	Activity	Ownership interest ¹
Alpha Partners Leasing Limited (APL)	UK	Aero engine leasing	50.0%
Hong Kong Aero Engine Services Limited (HAESL)	Hong Kong	Aero engine repair and overhaul	50.0% (45.0%)
Singapore Aero Engine Services Pte Limited (SAESL)	Singapore	Aero engine repair and overhaul	50.0% (39.0%)
Industria de Turbo Propulsores SA (ITP)	Spain	Aero engine component manufacture and maintenance	46.9%

¹ Figures in brackets are 2015 ownership interest, if different. During 2016, the Group completed the changes to the Approved Maintenance Centres announced in November 2015, resulting in increases in the ownership interests in HAESL and SAESL.

Summarised financial information of the Group's individually material joint ventures is as follows:

	APL		HAESL		SAESL		ITP	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Revenue	151	130	799	652	763	626	615	520
Profit for the year	58	65	233	27	33	46	50	40
Other comprehensive income	—	—	—	—	—	—	—	—
Total comprehensive income for the year	58	65	233	27	33	46	50	40
Dividends received during the year	(27)	(29)	(237)	(23)	(24)	(35)	(19)	(19)
Profit for the year included the following:								
Depreciation and amortisation	(82)	(59)	(10)	(8)	(12)	(5)	(45)	(37)
Interest income	—	—	—	—	—	—	11	10
Interest expense	(24)	(17)	(1)	(1)	(2)	—	(16)	(16)
Income tax expense	(5)	(7)	(8)	(5)	—	—	7	7
Current assets	176	129	248	223	307	218	731	576
Non-current assets	1,888	1,349	105	85	167	125	701	626
Current liabilities	(348)	(70)	(88)	(116)	(146)	(75)	(497)	(416)
Non-current liabilities	(1,296)	(1,123)	(79)	(38)	(143)	(136)	(485)	(431)
Net assets	420	285	186	154	185	132	450	355
Included in the above:								
Cash and cash equivalents	21	20	12	4	7	10	274	225
Current financial liabilities ¹	(292)	(19)	(7)	—	—	—	(12)	(25)
Non-current financial liabilities ¹	(1,111)	(969)	(71)	(30)	(143)	(136)	(331)	(273)

¹ Excluding trade and other payables.

Reconciliation to the carrying amount recognised in the consolidated financial statements

Ownership interest	50.0%	50.0%	50.0%	45.0%	50.0%	39.0%	46.9%	46.9%
Group share of net assets above	210	143	93	69	93	51	211	166
Goodwill	—	—	38	—	100	—	—	—
Adjustments for intercompany trading	—	—	—	—	—	—	(43)	(33)
Included in the consolidated balance sheet	210	143	131	69	193	51	168	133

On 11 July 2016, the Group announced that it will purchase the outstanding 53.1% shareholding in ITP owned by SENER Grupo de Ingeniería SA (SENER). This follows a decision by SENER to exercise its put option. On 28 November 2016, and following due diligence, the Group confirmed the valuation of €720m. Under the agreement, consideration will be settled over a two-year period following completion in eight evenly spaced instalments of equal value. The updated agreement allows flexibility to settle the consideration either in cash, in the form of Rolls-Royce shares or any mixture of the two, as preferred by Rolls-Royce. A decision as to whether each payment will be settled in cash, shares or cash and shares will be determined by Rolls-Royce during the payment period.

Completion remains subject to regulatory clearances and is expected in 2017.

Notes to the consolidated financial statements continued

11 Investments continued

The summarised aggregated results of the Group's share of all equity accounted investments is as follows:

	Individually material joint ventures (above)		Other joint ventures		Associates		Total	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Assets:								
Non-current assets	1,503	1,016	921	982	8	—	2,432	1,998
Current assets	710	523	383	320	1	2	1,094	845
Liabilities: ¹								
Current liabilities	(524)	(312)	(266)	(229)	—	—	(790)	(541)
Non-current liabilities	(987)	(831)	(905)	(895)	—	—	(1,892)	(1,726)
	702	396	133	178	9	2	844	576
¹ Liabilities include borrowings of	(970)	(700)	(761)	(773)	—	—	(1,731)	(1,473)
Profit for the year	84	82	34	23	(1)	(5)	117	100
Other comprehensive income	—	—	(7)	(19)	—	—	(7)	(19)
Total comprehensive income for the year	84	82	27	4	(1)	(5)	110	81

12 Inventories

	2016 £m	2015 £m
Raw materials	529	509
Work in progress	1,199	882
Long-term contracts work in progress	18	23
Finished goods	1,312	1,173
Payments on account	28	50
	3,086	2,637
Inventories stated at net realisable value	271	221
Amount of inventory write-down	74	64
Reversal of inventory write-down	8	14

13 Trade and other receivables

	2016 £m	2015 £m
Trade receivables	1,945	1,612
Amounts recoverable on contracts ¹	3,514	3,179
Amounts owed by joint ventures and associates	297	252
Other receivables	1,003	1,006
Prepayments and accrued income	197	195
	6,956	6,244
Analysed as:		
Financial instruments (note 17):		
Trade receivables and similar items	2,470	2,061
Other non-derivative financial assets	811	843
Non-financial instruments	3,675	3,340
	6,956	6,244
Trade and other receivables expected to be recovered in more than one year:		
Trade receivables	81	57
Amounts recoverable on contracts	3,020	2,768
Amounts owed by joint ventures and associates	—	1
Other receivables	109	131
Prepayments and accrued income	69	68
	3,279	3,025

¹ Amounts recoverable on contracts include £3,348m (2015: £2,994m) of TotalCare assets.

14 Cash and cash equivalents

	2016 £m	2015 £m
Cash at bank and in hand	872	662
Money-market funds	552	783
Short-term deposits	1,347	1,731
	2,771	3,176
Overdrafts (note 15)	—	—
Cash and cash equivalents per cash flow statement (page 118)	2,771	3,176
Cash held as collateral against third party obligations (note 18)	38	35

Cash and cash equivalents at 31 December 2016 include **£34m** (2015: £21m) that is not available for general use by the Group. This balance relates to cash held in non-wholly owned subsidiaries and the Group's captive insurance company.

15 Borrowings

	Current		Non-current		Total	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Unsecured						
Overdrafts	—	—	—	—	—	—
Bank loans	169	217	271	330	440	547
7 ³ / ₈ % Notes 2016 £200m	—	200	—	—	—	200
6.75% Notes 2019 £500m ¹	—	—	534	536	534	536
2.375% Notes 2020 US\$500m ²	—	—	403	333	403	333
2.125% Notes 2021 €750m ²	—	—	682	576	682	576
3.625% Notes 2025 US\$1,000m ²	—	—	814	668	814	668
3.375% Notes 2026 £375m ¹	—	—	417	390	417	390
Secured						
Obligations under finance leases ³	3	2	64	50	67	52
	172	419	3,185	2,883	3,357	3,302

¹ These notes are the subject of interest rate swap agreements under which the Group has undertaken to pay floating rates of interest which form a fair value hedge.

² These notes are the subject of interest rate swap agreements under which the Group has undertaken to pay floating rates of interest, and currency swaps which form a fair value hedge.

³ Obligations under finance leases are secured by related leased assets.

16 Trade and other payables

	Current		Non-current		Total	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Payments received on account ¹	1,246	1,491	1,024	516	2,270	2,007
Trade payables	1,981	1,397	—	23	1,981	1,420
Amounts owed to joint ventures and associates	268	197	3	2	271	199
Other taxation and social security	93	90	—	1	93	91
Other payables	2,243	1,784	784	361	3,027	2,145
Accruals and deferred income	2,126	1,964	1,648	1,414	3,774	3,378
	7,957	6,923	3,459	2,317	11,416	9,240
¹ Includes payments received on account from joint ventures and associates	140	161	17	35	157	196

Included within trade and other payables are government grants of **£75m** (2015: £64m). During the year, **£11m** (2015: £21m) of government grants were released to the income statement.

Included in accruals and deferred income are deferred receipts from RRSA workshare partners of **£233m** (2015: £228m), **£907m** (2015: £783m) of TotalCare liabilities and **£671m** (2015: nil) for financial penalties from agreements with investigating bodies.

Trade and other payables are analysed as follows:

	2016 £m	2015 £m
Financial instruments (note 17):		
Trade payables and similar items	3,889	3,101
Other non-derivative financial liabilities	1,660	817
Non-financial instruments	5,867	5,322
	11,416	9,240

Notes to the consolidated financial statements continued

17 Financial instruments

CARRYING VALUES AND FAIR VALUES OF FINANCIAL INSTRUMENTS

	Notes	Basis for determining fair value	Assets			Liabilities		Total
			Fair value through profit or loss £m	Loans and receivables £m	Available for sale £m	Cash £m	Fair value through profit or loss £m	Other £m
								£m
2016								
Unlisted non-current asset investments	11	A	—	38	—	—	—	—
Trade receivables and similar items	13	B	—	2,470	—	—	—	—
Other non-derivative financial assets	13	B	—	811	—	—	—	—
Derivative financial assets ¹		C	387	—	—	—	—	—
Short-term investments		B	—	3	—	—	—	—
Cash and cash equivalents	14	B	—	1,347	552	872	—	—
Borrowings	15	D	—	—	—	—	—	(3,357)
Derivative financial liabilities ¹		C	—	—	—	—	(5,636)	—
Financial RRSAs		E	—	—	—	—	—	(101)
TotalCare Flex		D	—	—	—	—	—	(15)
C Shares		B	—	—	—	—	—	(28)
Trade payables and similar items	16	B	—	—	—	—	—	(3,889)
Other non-derivative financial liabilities	16	B	—	—	—	—	—	(1,660)
			387	4,669	552	872	(5,636)	(9,050)
								(8,206)
2015								
Unlisted non-current asset investments	11	A	—	33	—	—	—	—
Trade receivables and similar items	13	B	—	2,061	—	—	—	—
Other non-derivative financial assets	13	B	—	843	—	—	—	—
Derivative financial assets ¹		C	112	—	—	—	—	—
Short-term investments		B	—	2	—	—	—	—
Cash and cash equivalents	14	B	—	1,731	783	662	—	—
Borrowings	15	D	—	—	—	—	—	(3,302)
Derivative financial liabilities ¹		C	—	—	—	—	(1,843)	—
Financial RRSAs		E	—	—	—	—	—	(110)
C Shares		B	—	—	—	—	—	(29)
Trade payables and similar items	16	B	—	—	—	—	—	(3,101)
Other non-derivative financial liabilities	16	B	—	—	—	—	—	(817)
			112	4,670	783	662	(1,843)	(7,359)
								(2,975)

¹ In the event of counterparty default relating to derivative financial assets and liabilities, offsetting would apply and financial assets and liabilities held with the same counterparty would net off. If this occurred with every counterparty, total financial assets would be nil and liabilities £5,249m.

Fair values equate to book values for both 2016 and 2015, with the following exceptions:

	2016		2015	
	Book value £m	Fair value £m	Book value £m	Fair value £m
Borrowings	(3,357)	(3,413)	(3,302)	(3,312)
Financial RRSAs	(101)	(109)	(110)	(110)

The fair value of a financial instrument is the price at which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arms-length transaction. Fair values have been determined with reference to available market information at the balance sheet date, using the methodologies described below.

A These primarily comprise unconsolidated companies where fair value approximates to the book value.

B Fair values are assumed to approximate to cost either due to the short-term maturity of the instruments or because the interest rate of the investments is reset after periods not exceeding six months.

C Fair values of derivative financial assets and liabilities are estimated by discounting expected future contractual cash flows using prevailing interest rate curves. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. These financial instruments are included on the balance sheet at fair value, derived from observable market prices (Level 2 as defined by IFRS 13 *Fair Value Measurement*).

D Borrowings and TotalCare Flex liabilities are carried at amortised cost. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. The fair value of borrowings is estimated by discounting contractual future cash flows. (Level 2 as defined by IFRS 13 *Fair Value Measurement*).

E The fair value of RRSAs is estimated by discounting expected future cash flows. The contractual cash flows are based on future trading activity, which is estimated based on latest forecasts (Level 3 as defined by IFRS 13).

IFRS 13 *Fair Value Measurement* defines a three-level valuation hierarchy:

Level 1 – quoted prices for similar instruments

Level 2 – directly observable market inputs other than Level 1 inputs

Level 3 – inputs not based on observable market data

17 Financial instruments continued

CARRYING VALUES OF OTHER FINANCIAL ASSETS AND LIABILITIES

	Foreign exchange contracts £m	Commodity contracts £m	Interest rate contracts ¹ £m	Total derivatives £m	Financial RRSAs £m	TotalCare Flex £m	C Shares £m	Total £m
2016								
Non-current assets	13	5	364	382	—	—	—	382
Current assets	4	1	—	5	—	—	—	5
Assets	17	6	364	387	—	—	—	387
Current liabilities	(566)	(24)	—	(590)	(33)	—	(28)	(651)
Non-current liabilities	(5,002)	(38)	(6)	(5,046)	(68)	(15)	—	(5,129)
Liabilities	(5,568)	(62)	(6)	(5,636)	(101)	(15)	(28)	(5,780)
	(5,551)	(56)	358	(5,249)	(101)	(15)	(28)	(5,393)
2015								
Non-current assets	3	—	80	83	—	—	—	83
Current assets	29	—	—	29	—	—	—	29
Assets	32	—	80	112	—	—	—	112
Current liabilities	(244)	(39)	—	(283)	(19)	—	(29)	(331)
Non-current liabilities	(1,428)	(65)	(67)	(1,560)	(91)	—	—	(1,651)
Liabilities	(1,672)	(104)	(67)	(1,843)	(110)	—	(29)	(1,982)
	(1,640)	(104)	13	(1,731)	(110)	—	(29)	(1,870)

¹ Includes the foreign exchange impact of cross-currency interest rate swaps.

DERIVATIVE FINANCIAL INSTRUMENTS

The Group uses various financial instruments to manage its exposure to movements in foreign exchange rates. Where the effectiveness of a hedging relationship in a cash flow hedge is demonstrated, changes in the fair value that are deemed effective are included in the cash flow hedge reserve and released to match actual payments on the hedged item. The Group uses commodity swaps to manage its exposure to movements in the price of commodities (jet fuel and base metals). To hedge the currency risk associated with a borrowing denominated in US dollars, the Group has currency derivatives designated as part of fair value hedges. The Group uses interest rate swaps and forward rate agreements to manage its exposure to movements in interest rates.

Movements in the fair values of derivative financial assets and liabilities were as follows:

	Foreign exchange instruments		Commodity instruments		Interest rate instruments		Total	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
At 1 January	(1,640)	(639)	(104)	(43)	13	52	(1,731)	(630)
Currency options at inception ¹	(33)	(20)	—	—	—	—	(33)	(20)
Movements in fair value hedges ²	—	1	—	—	345	(36)	345	(35)
Movements in other derivative contracts ³	(4,436)	(1,217)	16	(89)	—	—	(4,420)	(1,306)
Contracts settled ⁴	558	235	32	28	—	(3)	590	260
At 31 December	(5,551)	(1,640)	(56)	(104)	358	13	(5,249)	(1,731)

¹ The Group has written currency options to sell USD and buy GBP as part of a commercial agreement. The fair values of these options on inception are treated as a discount to the customer.

² Loss on related hedged items £345m (2015: £35m gain).

³ Included in financing.

⁴ Includes nil contracts settled in fair value hedges (2015: £8m).

FINANCIAL RISK AND REVENUE SHARING ARRANGEMENTS (RRSAs) AND OTHER FINANCIAL LIABILITIES

The Group has financial liabilities arising from financial RRSAs. These financial liabilities are valued at each reporting date using the amortised cost method. This involves calculating the present value of the forecast cash flows of the arrangements using the internal rate of return at the inception of the arrangements as the discount rate.

Notes to the consolidated financial statements continued

17 Financial instruments continued

Movements in the carrying values were as follows:

	Financial RSAs		TotalCare Flex
	2016 £m	2015 £m	2016 £m
At 1 January	(110)	(145)	—
Exchange adjustments included in OCI	5	—	—
Additions	—	—	(14)
Financing charge ¹	(6)	(8)	(1)
Excluded from underlying profit:			
Changes in forecast payments ¹	5	11	—
Exchange adjustments ¹	(13)	(3)	(3)
Cash paid to partners	18	35	—
Other	—	—	3
At 31 December	(101)	(110)	(15)

¹ Included in financing.

RISK MANAGEMENT POLICIES AND HEDGING ACTIVITIES

The principal financial risks to which the Group is exposed are: foreign currency exchange rate risk; liquidity risk; credit risk; interest rate risk; and commodity price risk. The Board has approved policies for the management of these risks.

Foreign currency exchange rate risk – The Group has significant cash flows (most significantly US dollars, followed by the euro) denominated in currencies other than the functional currency of the relevant trading entity. To manage its exposures to changes in values of future foreign currency cash flows, so as to maintain relatively stable long-term foreign exchange rates on settled transactions, the Group enters into derivative forward foreign currency transactions. For accounting purposes, these derivative contracts are not designated as hedging instruments.

The Group also has exposures to the fair values of non-derivative financial instruments denominated in foreign currencies. To manage the risk of changes in these fair values, the Group enters into derivative forward foreign exchange contracts, which are designated as fair value hedges for accounting purposes.

The Group regards its interests in overseas subsidiary companies as long-term investments. The Group aims to match its translational exposures by matching the currencies of assets and liabilities. Where appropriate, foreign currency financial liabilities may be designated as hedges of the net investment.

Liquidity risk – The Group's policy is to hold financial investments and maintain undrawn committed facilities at a level sufficient to ensure that the Group has available funds to meet its medium-term capital and funding obligations and to meet any unforeseen obligations and opportunities. The Group holds cash and short-term investments, which together with the undrawn committed facilities, enable the Group to manage its liquidity risk.

Credit risk – The Group is exposed to credit risk to the extent of non-payment by either its customers or the counterparties of its financial instruments. The effective monitoring and controlling of credit risk is a key component of the Group's risk management activities. The Group has credit policies covering both trading and financial exposures. Credit risks arising from treasury activities are managed by a central treasury function in accordance with the Group credit policy. The objective of the policy is to diversify and minimise the Group's exposure to credit risk from its treasury activities by ensuring the Group transacts strictly with 'BBB+' or higher-rated financial institutions based on pre-established limits per financial institution. At the balance sheet date, there were no significant concentrations of credit risk to individual customers or counterparties. The maximum exposure to credit risk at the balance sheet date is represented by the carrying value of each financial asset, including derivative financial instruments.

Interest rate risk – The Group's interest rate risk is primarily in relation to its fixed rate borrowings (fair value risk), floating rate borrowings and cash and cash equivalents (cash flow risk). Interest rate derivatives are used to manage the overall interest rate profile within the Group policy, which is to maintain a higher proportion of net debt at floating rates of interest as a natural hedge to the net cash position. These are designated as either fair value or cash flow hedges as appropriate.

Commodity risk – The Group has exposures to the price of jet fuel and base metals arising from business operations. To minimise its cash flow exposures to changes in commodity prices, the Group enters into derivative commodity transactions. For accounting purposes, these derivative contracts are not designated as hedging instruments.

Other price risk – The Group's cash equivalent balances represent investments in money-market instruments, with a term of up to three months. The Group does not consider that these are subject to significant price risk.

17 Financial instruments continued

DERIVATIVE FINANCIAL INSTRUMENTS

The nominal amounts, analysed by year of expected maturity, and fair values of derivative financial instruments are as follows:

	Expected maturity					Fair value	
	Nominal amount £m	Within one year £m	Between one and two years £m	Between two and five years £m	After five years £m	Assets £m	Liabilities £m
At 31 December 2016							
Foreign exchange contracts:							
Non-hedge accounted	29,327	5,826	4,867	15,011	3,623	17	(5,568)
Interest rate contracts:							
Fair value hedges	2,735	–	–	1,548	1,187	358	–
Non-hedge accounted	–	–	–	–	–	6	(6)
Commodity contracts:							
Non-hedge accounted	300	83	80	122	15	6	(62)
	32,362	5,909	4,947	16,681	4,825	387	(5,636)
At 31 December 2015							
Foreign exchange contracts:							
Non-hedge accounted	22,418	5,736	4,266	11,637	779	32	(1,672)
Interest rate contracts:							
Fair value hedges	2,437	–	–	500	1,937	74	(61)
Non-hedge accounted	–	–	–	–	–	6	(6)
Commodity contracts:							
Non-hedge accounted	268	90	72	83	23	–	(104)
	25,123	5,826	4,338	12,220	2,739	112	(1,843)

As described above, all derivative financial instruments are entered into for risk management purposes, although these may not be designated into hedging relationships for accounting purposes.

CURRENCY ANALYSIS

Derivative financial instruments related to foreign exchange risks are denominated in the following currencies:

	Currencies purchased forward				
	Sterling £m	US dollar £m	Euro £m	Other £m	Total £m
At 31 December 2016					
Currencies sold forward:					
Sterling	–	–	246	274	520
US dollar	25,330	–	1,885	984	28,199
Euro	36	148	–	196	380
Other	13	101	105	9	228
At 31 December 2015					
Currencies sold forward:					
Sterling	–	383	–	221	604
US dollar	18,869	–	1,552	902	21,323
Euro	2	76	–	125	203
Other	131	12	143	2	288

Other derivative financial instruments are denominated in the following currencies:

	2016 £m	2015 £m
Sterling	875	875
US dollar	1,515	1,279
Euro	645	550

Notes to the consolidated financial statements continued

17 Financial instruments continued

Non-derivative financial instruments are denominated in the following currencies:

	Sterling £m	US dollar £m	Euro £m	Other £m	Total £m
At 31 December 2016					
Unlisted non-current investments	–	1	36	1	38
Trade receivables and similar items	160	1,567	653	90	2,470
Other non-derivative financial assets	284	271	123	133	811
Short-term investments	–	–	–	3	3
Cash and cash equivalents	1,134	831	507	299	2,771
Assets	1,578	2,670	1,319	526	6,093
Borrowings	(1,194)	(1,374)	(783)	(6)	(3,357)
Financial RRSAs	9	(78)	(32)	–	(101)
TotalCare Flex	–	(15)	–	–	(15)
C Shares	(28)	–	–	–	(28)
Trade payables and similar items	(1,730)	(1,437)	(573)	(149)	(3,889)
Other non-derivative financial liabilities	(889)	(588)	(138)	(45)	(1,660)
Liabilities	(3,832)	(3,492)	(1,526)	(200)	(9,050)
	(2,254)	(822)	(207)	326	(2,957)
At 31 December 2015					
Unlisted non-current investments	–	1	31	1	33
Trade receivables and similar items	131	1,228	613	89	2,061
Other non-derivative financial assets	280	350	102	111	843
Short-term investments	–	–	–	2	2
Cash and cash equivalents	1,554	959	446	217	3,176
Assets	1,965	2,538	1,192	420	6,115
Borrowings	(1,369)	(1,162)	(768)	(3)	(3,302)
Financial RRSAs	–	(75)	(35)	–	(110)
C Shares	(29)	–	–	–	(29)
Trade payables and similar items	(1,536)	(859)	(523)	(183)	(3,101)
Other non-derivative financial liabilities	(242)	(303)	(139)	(133)	(817)
Liabilities	(3,176)	(2,399)	(1,465)	(319)	(7,359)
	(1,211)	139	(273)	101	(1,244)

CURRENCY EXPOSURES

The Group's actual currency exposures after taking account of derivative foreign currency contracts, which are not designated as hedging instruments for accounting purposes are as follows:

	Sterling £m	US dollar £m	Euro £m	Other £m	Total £m
Functional currency of Group operations					
At 31 December 2016					
Sterling	–	(1)	3	–	2
US dollar	(22)	–	(2)	19	(5)
Euro	(2)	(1)	–	1	(2)
Other	3	9	18	2	32
At 31 December 2015					
Sterling	–	–	1	27	28
US dollar	(12)	1	–	8	(3)
Euro	4	–	–	–	4
Other	–	3	1	(1)	3

17 Financial instruments continued**AGEING BEYOND CONTRACTUAL DUE DATE OF FINANCIAL ASSETS**

	Within terms £m	Up to three months overdue £m	Between three months and one year overdue £m	More than one year overdue £m	Total £m
At 31 December 2016					
Unlisted non-current asset investments	38	–	–	–	38
Trade receivables and similar items	2,133	218	85	34	2,470
Other non-derivative financial assets	796	13	–	2	811
Derivative financial assets	387	–	–	–	387
Short-term investments	3	–	–	–	3
Cash and cash equivalents	2,771	–	–	–	2,771
	6,128	231	85	36	6,480
At 31 December 2015					
Unlisted non-current asset investments	33	–	–	–	33
Trade receivables and similar items	1,745	184	98	34	2,061
Other non-derivative financial assets	835	5	1	2	843
Derivative financial assets	112	–	–	–	112
Short-term investments	2	–	–	–	2
Cash and cash equivalents	3,176	–	–	–	3,176
	5,903	189	99	36	6,227

CONTRACTUAL MATURITY ANALYSIS OF FINANCIAL LIABILITIES

	Gross values				Discounting £m	Carrying value £m
	Within one year £m	Between one and two years £m	Between two and five years £m	After five years £m		
At 31 December 2016						
Borrowings	(276)	(114)	(2,007)	(1,458)	498	(3,357)
Derivative financial liabilities	(604)	(1,297)	(3,190)	(1,418)	873	(5,636)
Financial RRSAs	(24)	(26)	(66)	(2)	17	(101)
TotalCare Flex	–	–	(18)	–	3	(15)
C Shares	(28)	–	–	–	–	(28)
Trade payables and similar items	(3,860)	(15)	–	(14)	–	(3,889)
Other non-derivative financial liabilities	(1,080)	(68)	(438)	(74)	–	(1,660)
	(5,872)	(1,520)	(5,719)	(2,966)	1,391	(14,686)
At 31 December 2015						
Borrowings	(530)	(161)	(1,317)	(1,897)	603	(3,302)
Derivative financial liabilities	(286)	(329)	(1,026)	(314)	112	(1,843)
Financial RRSAs	(16)	(20)	(76)	(10)	12	(110)
C Shares	(29)	–	–	–	–	(29)
Trade payables and similar items	(3,059)	(38)	(4)	–	–	(3,101)
Other non-derivative financial liabilities	(640)	(43)	(74)	(60)	–	(817)
	(4,560)	(591)	(2,497)	(2,281)	727	(9,202)

Notes to the consolidated financial statements continued

17 Financial instruments continued

INTEREST RATE RISK

In respect of income earning financial assets and interest bearing financial liabilities, the following table indicates their effective interest rates and the periods in which they reprice. The value shown is the carrying amount.

			Period in which interest rate reprices	
	Effective interest rate %	Total £m	6 months or less £m	6-12 months £m
At 31 December 2016				
Short-term investments ¹		3	1	2
Cash and cash equivalents ²		2,771	2,771	—
Unsecured bank loans				
Other borrowings		(107)	—	—
£200m floating rate loan	GBP LIBOR + 1.26	(200)	(200)	—
£43m floating rate loan	GBP LIBOR + 0.402	(43)	(43)	—
€125m fixed rate loan	2.6000%	—	—	—
€75m fixed rate loan	2.0600%	(64)	—	—
€50m fixed rate loan	2.3500%	(26)	—	—
Unsecured bond issues				
6.75% Notes 2019 £500m	6.7500%	(534)	—	—
Effect of interest rate swaps	GBP LIBOR + 2.9824	—	(534)	—
2.375% Notes 2020 \$500m	2.3750%	(403)	—	—
Effect of interest rate swaps	GBP LIBOR + 0.8410	—	(403)	—
2.125% Notes 2021 €750m	2.1250%	(682)	—	—
Effect of interest rate swaps	GBP LIBOR + 0.7005	—	(682)	—
3.625% Notes 2025 \$1,000m	3.6250%	(814)	—	—
Effect of interest rate swaps	GBP LIBOR + 1.4658	—	(814)	—
3.375% Notes 2026 £375m	3.3750%	(417)	—	—
Effect of interest rate swaps	GBP LIBOR + 0.8930	—	(417)	—
Other secured				
Obligations under finance leases	4.5488%	(67)	—	—
		(583)		

	Effective interest rate %	Total £m	Period in which interest rate reprices	
			6 months or less £m	6-12 months £m
At 31 December 2015				
Short-term investments ¹		2	2	—
Cash and cash equivalents ²		3,176	3,176	—
Unsecured bank loans				
Other borrowings		(129)	(1)	—
£200m floating rate loan	GBP LIBOR + 1.26	(200)	(200)	—
£43m floating rate loan	GBP LIBOR + 0.402	(43)	(43)	—
€125m fixed rate loan	2.6000%	(92)	—	—
€75m fixed rate loan	2.0600%	(55)	—	—
€50m fixed rate loan	2.3500%	(28)	—	—
Unsecured bond issues				
7 ⅜% Notes 2016 £200m	7.3750%	(200)	—	—
6.75% Notes 2019 £500m	6.7500%	(536)	—	—
Effect of interest rate swaps	GBP LIBOR + 2.9824	—	(536)	—
2.375% Notes 2020 \$500m	2.3750%	(333)	—	—
Effect of interest rate swaps	GBP LIBOR + 0.8410	—	(333)	—
2.125% Notes 2021 €750m	2.1250%	(576)	—	—
Effect of interest rate swaps	GBP LIBOR + 0.7005	—	(576)	—
3.625% Notes 2025 \$1,000m	3.6250%	(668)	—	—
Effect of interest rate swaps	GBP LIBOR + 1.4658	—	(668)	—
3.375% Notes 2026 £375m	3.3750%	(390)	—	—
Effect of interest rate swaps	GBP LIBOR + 0.8930	—	(390)	—
Other secured				
Obligations under finance leases	4.1089%	(52)		
		(124)		

¹ Interest on the short-term investments are at fixed rates.

² Cash and cash equivalents comprise bank balances and demand deposits and earn interest at rates based on daily deposit rates.

17 Financial instruments continued

Some of the Group's borrowings are subject to the Group meeting certain obligations, including customary financial covenants. If the Group fails to meet its obligations these arrangements give rights to the lenders, upon agreement, to accelerate repayment of the facilities. There are no rating triggers contained in any of the Group's facilities that could require the Group to accelerate or repay any facility for a given movement in the Group's credit rating.

In addition, the Group has **£2,280m** (2015: £1,780m) of undrawn committed borrowing facilities available for at least the next two years.

SENSITIVITY ANALYSIS

	2016 £m	2015 £m
Sensitivities at 31 December (all other variables held constant) – impact on profit after tax and equity		
Sterling 10% weaker against the US dollar	(2,552)	(1,574)
Sterling 10% stronger against the US dollar	2,089	1,288
Euro 10% weaker against the US dollar	(158)	(130)
Euro 10% stronger against the US dollar	133	111
Sterling 10% weaker against the Euro	26	18
Sterling 10% stronger against the Euro	(21)	(15)
Commodity prices 10% lower	(19)	(13)
Commodity prices 10% higher	19	13

At 31 December 2016 the Group had no material sensitivity to changes in interest rates on that date. The main interest rate sensitivity for the Group arises as a result of the gross up of net cash and this is mitigated as described under the interest rate risk management policies on page 185.

C SHARES AND PAYMENTS TO SHAREHOLDERS

The Company issues non-cumulative redeemable preference shares (C Shares) as an alternative to paying a cash dividend. C Shares in respect of a year are issued in the following year. Shareholders are able to redeem any number of their C Shares for cash. Any C Shares retained attract a dividend of 75% of LIBOR on the 0.1p nominal value of each share, paid on a twice-yearly basis, and have limited voting rights. The Company has the option to compulsorily redeem the C Shares, at any time, if the aggregate number of C Shares in issue is less than 10% of the aggregate number of C Shares issued, or on the acquisition or capital restructuring of the Company.

Movements in issued and fully paid C Shares during the year were as follows:

	2016		2015	
	Millions	Nominal value £m	Millions	Nominal value £m
At 1 January	28,960	29	22,005	22
Issued	300,993	301	429,536	430
Redeemed	(301,828)	(302)	(422,581)	(423)
At 31 December	28,125	28	28,960	29

Payments to shareholders in respect of the year represent the value of C Shares to be issued in respect of the results for the year. Issues of C Shares were declared as follows:

	2016		2015	
	Pence per share	£m	Pence per share	£m
Interim	4.60	85	9.27	170
Final	7.10	130	7.10	131
	11.70	215	16.37	301

Notes to the consolidated financial statements continued

18 Provisions for liabilities and charges

	At 1 January 2016 £m	Exchange differences £m	Unused amounts reversed £m	Charged to income statement £m	Utilised £m	At 31 December 2016 £m
Warranties and guarantees ¹	381	55	(24)	171	(109)	474
Contract loss	36	7	(4)	18	(3)	54
Restructuring	66	3	(19)	35	(41)	44
Customer financing	20	—	—	5	(6)	19
Insurance	67	—	(24)	36	(11)	68
Other	70	10	(27)	104	(57)	100
	640	75	(98)	369	(227)	759
Current liabilities	336					543
Non-current liabilities	304					216

¹ During 2016, following a review of consistency, £92m of accruals have been reclassified as provisions. Prior figures have not been restated.

Provisions for warranties and guarantees primarily relate to products sold and generally cover a period of up to three years.

Provisions for contract loss and restructuring are generally expected to be utilised within two years.

In connection with the sale of its products the Group will, on some occasions, provide financing support for its customers – generally in respect of civil aircraft. The Group's commitments relating to these financing arrangements are spread over many years, relate to a number of customers and a broad product portfolio and are generally secured on the asset subject to the financing. These include commitments of US\$3.2bn (2015: US\$3.1bn) to provide borrowing facilities to enable customers to purchase aircraft (of which approximately US\$421m could be called during 2017). These facilities may only be used if the customer is unable to obtain financing elsewhere and are priced at a premium to the market rate. Consequently the Directors do not consider that there is a significant exposure arising from the provision of these facilities.

Customer financing provisions cover guarantees provided for asset value and/or financing. These guarantees, the risks arising and the process used to assess the extent of the risk are described under the heading 'Customer financing' in the Financial review on page 39. It is estimated that the provision will be utilised as follows:

	2016 £m	2015 £m
Potential claims with specific claim dates:		
In one year or less	2	3
In more than one year but less than five years	12	12
In more than five years	5	5
	19	20

Commitments on delivered aircraft in excess of the amounts provided are shown in the table below. These are reported on a discounted basis at the Group's borrowing rate to reflect better the time span over which these exposures could arise. These amounts do not represent values that are expected to crystallise. The commitments are denominated in US dollars. As the Group does not generally adopt cash flow hedge accounting for future foreign exchange transactions, this amount is reported, together with the sterling equivalent at the reporting date spot rate. The values of aircraft providing security are based on advice from a specialist aircraft appraiser.

	2016		2015	
	£m	\$m	£m	\$m
Gross commitments	238	293	269	399
Value of security ¹	(103)	(126)	(136)	(201)
Indemnities	(74)	(91)	(79)	(118)
Net commitments	61	76	54	80
Net commitments with security reduced by 20% ²	86	106	78	115
¹ Security includes unrestricted cash collateral of:	38	47	35	52

² Although sensitivity calculations are complex, the reduction of relevant security by 20% illustrates the sensitivity to changes in this assumption.

The Group's captive insurance company retains a portion of the exposures it insures on behalf of the remainder of the Group. Significant delays occur in the notification and settlement of claims and judgement is involved in assessing outstanding liabilities, the ultimate cost and timing of which cannot be known with certainty at the balance sheet date. The insurance provisions are based on information currently available, however it is inherent in the nature of the business that ultimate liabilities may vary. Provisions for outstanding claims are established to cover the outstanding expected liability as well as claims incurred but not yet reported.

Other provisions comprise a number of liabilities with varying expected utilisation rates.

19 Post-retirement benefits

The Group operates a number of defined benefit and defined contribution schemes:

- The UK defined benefit scheme is funded, with the assets held in a separate trustee administered funds. Employees are entitled to retirement benefits based on either their final or career average salaries and length of service.
- Overseas defined benefit schemes are a mixture of funded and unfunded plans and provide benefits in line with local practice. Additionally in the US, and to a lesser extent in some other countries, the Group's employment practices include the provision of healthcare and life insurance benefits for retired employees. These schemes are unfunded.

The valuations of the defined benefit schemes are based on the most recent funding valuations, where relevant, updated by the scheme actuaries to 31 December 2016.

The defined benefit schemes expose the Group to actuarial risks such as longevity, interest rate, inflation and investment risks. In the UK, and in the principal US pension schemes, the Group has adopted investment policies to mitigate some of these risks. This involves investing a significant proportion of the schemes' assets in Liability Driven Investment portfolios, which hold investments designed to offset interest rate and inflation rate risks. In addition, in the UK, the scheme has invested in a longevity swap, which is designed to offset longevity risks in respect of approximately two thirds of current pensioners.

During the year, the Group has restructured its UK defined benefit arrangements. Four of the five UK schemes have been merged together into a consolidated scheme, renamed the 'Rolls-Royce UK Pension Fund'. All future defined benefit accrual will be provided from this scheme, limited to employees who joined the Company before 1 April 2007. The scheme merger will simplify future administration and governance. As part of this merger, the three transferring schemes are being wound up. Members of these schemes with benefits below statutory limits were offered lump sums in exchange for their existing benefits, which resulted in a settlement charge of £2m.

The liabilities of the fifth scheme, the Vickers Group Pension Scheme, have been fully bought-out with a UK insurance company, Legal & General Assurance Company Limited, resulting in a settlement charge of £301m. This scheme is expected to be wound up in 2017.

Neither of these transactions required any additional funding by the Group.

AMOUNTS RECOGNISED IN THE INCOME STATEMENT

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Defined benefit schemes:						
Current service cost and administrative expenses ¹	169	50	219	169	52	221
Past-service (credit)/cost	(22)	1	(21)	(16)	8	(8)
Settlements ¹	302	10	312	—	—	—
	449	61	510	153	60	213
Defined contribution schemes	29	87	116	33	85	118
Operating cost	478	148	626	186	145	331
Net financing (credit)/charge in respect of defined benefit schemes	(41)	38	(3)	(65)	33	(32)
Total income statement charge	437	186	623	121	178	299

¹ £306m of costs have been excluded from the underlying results, comprising: £301m settlement cost on the buy-out of the Vickers Group Pension Scheme; £3m of administrative expenses on the restructuring all the UK defined benefit plans; and £2m settlement cost in relation to winding-up lump sums on small pensions as a consequence of the restructuring.

The operating cost is charged as follows:

	Defined benefit		Defined contribution		Total	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Cost of sales	133	147	72	80	205	227
Commercial and administrative costs	343	32	27	21	370	53
Research and development	34	34	17	17	51	51
	510	213	116	118	626	331

Pension contributions to UK pension arrangements are generally paid via a salary sacrifice scheme under which employees agree to a reduction in gross contractual pay in return for the Group making additional pension contributions on their behalf. As a result, there is a decrease in wages and salaries and a corresponding increase in pension costs of £31m (2015 £32m) in the year.

Notes to the consolidated financial statements continued

19 Post-retirement benefits continued

Net financing comprises:

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Financing on scheme obligations	385	65	450	375	57	432
Financing on scheme assets	(426)	(27)	(453)	(440)	(24)	(464)
Net financing (income)/charge in respect of defined benefit schemes	(41)	38	(3)	(65)	33	(32)
Financing income on scheme surpluses	(41)	(1)	(42)	(65)	–	(65)
Financing cost on scheme deficits	–	39	39	–	33	33

AMOUNTS RECOGNISED IN OCI IN RESPECT OF DEFINED BENEFIT SCHEMES

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Actuarial gains and losses arising from demographic assumptions	566	12	578	(185)	8	(177)
Actuarial gains and losses arising from financial assumptions	(2,360)	(90)	(2,450)	(70)	70	–
Actuarial gains and losses arising from experience adjustments	(16)	52	36	56	8	64
Return on scheme assets excluding financing income	2,326	5	2,331	(593)	(16)	(609)
	516	(21)	495	(792)	70	(722)

AMOUNTS RECOGNISED IN THE BALANCE SHEET IN RESPECT OF DEFINED BENEFIT SCHEMES

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Present value of funded obligations	(12,014)	(798)	(12,812)	(10,914)	(650)	(11,564)
Fair value of scheme assets	13,350	747	14,097	11,957	597	12,554
Net asset/(liability) on funded schemes	1,336	(51)	1,285	1,043	(53)	990
Present value of unfunded obligations	–	(1,314)	(1,314)	–	(1,067)	(1,067)
Net asset¹/(liability) recognised in the balance sheet	1,336	(1,365)	(29)	1,043	(1,120)	(77)
Post-retirement scheme surpluses	1,336	10	1,346	1,059	4	1,063
Post-retirement scheme deficits	–	(1,375)	(1,375)	(16)	(1,124)	(1,140)

¹ The surplus in the UK scheme is recognised as, on ultimate wind-up when there are no longer any remaining beneficiaries, any surplus would be returned to the Group, which has the power to prevent the surplus being used for other purposes in advance of this event.

Overseas schemes are located in the following countries:

	2016			2015		
	Assets £m	Obligations £m	Net £m	Assets £m	Obligations £m	Net £m
Canada	194	(243)	(49)	152	(188)	(36)
Germany	–	(717)	(717)	–	(553)	(553)
US pension schemes	553	(631)	(78)	429	(513)	(84)
US healthcare schemes	–	(497)	(497)	–	(426)	(426)
Other	–	(24)	(24)	16	(37)	(21)
Net asset/(liability) recognised in the balance sheet	747	(2,112)	(1,365)	597	(1,717)	(1,120)

19 Post-retirement benefits continued

DEFINED BENEFIT SCHEMES' ASSUMPTIONS

Significant actuarial assumptions for the UK schemes used at the balance sheet date were as follows:

	2016	2015
Discount rate	2.70%	3.60%
Inflation assumption (RPI) ¹	3.50%	3.25%
Rate of increase in salaries	4.25%	4.00%
Life expectancy from age 65: current male pensioner	22.7 years	22.8 years
future male pensioner currently aged 45	24.3 years	24.8 years
current female pensioner	24.1 years	24.2 years
future female pensioner currently aged 45	26.4 years	27.0 years

¹ This is the assumption for the Retail Price Index. The Consumer Price Index is assumed to be 1.1% lower.

Discount rates are determined by reference to the market yields on AA rated corporate bonds. The rate is determined by using the profile of forecast benefit payments to derive a weighted average discount rate from the yield curve.

The inflation assumption is determined by the market implied assumption based on the yields on long-term indexed linked government securities and increases in salaries are based on actual experience, allowing for promotion, of the real increase above inflation.

The mortality assumptions adopted for the UK pension schemes are derived from the SAP actuarial tables, with future improvements in line with the CMI 2016 Proposed 2015 core projections and long-term improvements of 1.5%. Where appropriate, these are adjusted to take account of the relevant scheme's actual experience.

Other assumptions have been set on advice from the relevant actuary, having regard to the latest trends in scheme experience and the assumptions used in the most recent funding valuation. The rate of increase of pensions in payment is based on the rules of the relevant scheme, combined with the inflation assumption where the increase is capped.

Assumptions for overseas schemes are less significant and are based on advice from local actuaries. The principal assumptions are:

	2016	2015
Discount rate	3.3%	3.6%
Inflation assumption	2.1%	2.2%
Long-term healthcare cost trend rate	4.8%	5.0%
Male life expectancy from age 65: current pensioner	21.0 years	21.1 years
future pensioner currently aged 45	22.5 years	23.3 years

Changes in present value of defined benefit obligations

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
At 1 January	(10,914)	(1,717)	(12,631)	(10,606)	(1,773)	(12,379)
Exchange differences	—	(339)	(339)	—	17	17
Current service cost	(160)	(48)	(208)	(164)	(50)	(214)
Past service cost	22	(1)	21	16	(5)	11
Finance cost	(385)	(64)	(449)	(375)	(58)	(433)
Contributions by employees	(3)	(2)	(5)	(3)	(4)	(7)
Benefits paid out	430	79	509	417	75	492
Actuarial (losses)/gains	(1,810)	(27)	(1,837)	(199)	84	(115)
Settlement	806	10	816	—	—	—
Other movements	—	(3)	(3)	—	(3)	(3)
At 31 December	(12,014)	(2,112)	(14,126)	(10,914)	(1,717)	(12,631)
Funded schemes	(12,014)	(798)	(12,812)	(10,914)	(650)	(11,564)
Unfunded schemes	—	(1,314)	(1,314)	—	(1,067)	(1,067)

The defined benefit obligations are in respect of:

Active plan participants	(5,279)	(1,120)	(6,399)	(4,273)	(921)	(5,194)
Deferred plan participants	(2,146)	(154)	(2,300)	(1,946)	(130)	(2,076)
Pensioners	(4,589)	(838)	(5,427)	(4,695)	(666)	(5,361)
Weighted average duration of obligations (years)	20	16	19	18	16	17

Notes to the consolidated financial statements continued

19 Post-retirement benefits continued

Changes in fair value of scheme assets

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
At 1 January	11,957	597	12,554	12,341	593	12,934
Exchange differences	–	131	131	–	(2)	(2)
Administrative expenses	(9)	(2)	(11)	(5)	(2)	(7)
Financing	426	27	453	440	24	464
Return on plan assets excluding financing	2,326	5	2,331	(593)	(16)	(609)
Contributions by employer	185	86	271	188	71	259
Contributions by employees	3	2	5	3	4	7
Benefits paid out	(430)	(79)	(509)	(417)	(75)	(492)
Settlements/curtailment	(1,108)	(20)	(1,128)	–	–	–
At 31 December	13,350	747	14,097	11,957	597	12,554
Total return on scheme assets	2,752	32	2,784	(153)	8	(145)

Fair value of scheme assets at 31 December

	2016			2015		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Sovereign debt	7,574	335	7,909	7,283	297	7,580
Derivatives on sovereign debt	–	3	3	(5)	(1)	(6)
Corporate debt instruments	3,061	297	3,358	1,977	239	2,216
Interest rate swaps	2,063	–	2,063	1,868	–	1,868
Inflation swaps	(420)	–	(420)	(477)	–	(477)
Cash and similar instruments	(51)	18	(33)	118	21	139
Liability driven investment (LDI) portfolios¹	12,227	653	12,880	10,764	556	11,320
Longevity swap ²	(175)	–	(175)	(142)	–	(142)
Listed equities	969	82	1,051	810	1	811
Unlisted equities	214	–	214	232	–	232
Sovereign debt	–	4	4	110	3	113
Corporate debt instruments	–	–	–	24	–	24
Cash	25	9	34	68	21	89
Other	90	(1)	89	91	16	107
	13,350	747	14,097	11,957	597	12,554

¹ A portfolio of gilt and swap contracts, backed by investment grade credit instruments and LIBOR generating assets, that is designed to hedge the majority of the interest rate and inflation risks associated with the schemes' obligations.

² Under the longevity swap, the Rolls-Royce UK Pension Fund has agreed an average life expectancy of pensioners with a counterparty. If pensioners live longer than expected the counterparty will make payments to the Fund to offset the additional cost of paying pensioners. If the reverse applies the cost of paying pensioners will be reduced but the scheme will be required to make payments to the counterparty. The longevity swap is valued at fair value in accordance with IFRS 13 (Level 3).

The investment strategy for the UK scheme is controlled by the Trustee in consultation with the Company. The scheme assets do not include any of the Group's own financial instruments, nor any property occupied by, or other assets used by, the Group. The longevity swap is valued by the scheme actuaries based on the difference between the agreed longevity assumptions at inception and actual longevity experience. All other fair values are provided by the fund managers. Where available, the fair values are quoted prices (eg. listed equity, sovereign debt and corporate bonds). Unlisted investments (private equity) are included at values provided by the fund manager in accordance with relevant guidance. Other significant assets are valued based on observable inputs such as yield curves.

FUTURE CONTRIBUTIONS

The Group expects to contribute approximately £210m to its defined benefit schemes in 2017.

In the UK, the funding is based on a statutory triennial funding valuation process. This includes a negotiation between the Group and the Trustee on actuarial assumptions used to value obligations (Technical Provisions or TPs) which may differ from those used for accounting set out above. In particular, the discount rate used to value TPs must be prudent and take account of the investment strategy, rather than being based on yields of AA corporate bonds. Following the triennial valuation process, a Schedule of Contributions (SoC) must be agreed which sets out the required contribution for current service. If the scheme is in deficit, the SoC must also include agreed contributions from the employer to eliminate any deficit. The most recent update provided to the Trustee, as at 30 September 2016, showed that the UK scheme was estimated to be 108% funded on a provisional TPs basis calculated using a discount rate equal to UK Government bond yields plus 0.5%. Contributions to this scheme are currently being paid in line with the SoCs of the predecessor schemes in place pre-merger, which result in an average contribution rate of 30.8% of salary.

19 Post-retirement benefits continued

The first consolidated funding valuation is planned to be undertaken as at 31 March 2017. Any adjustment to contributions payable following this valuation are expected to take effect in 2018.

Sensitivities

The calculations of the defined benefit obligations are sensitive to the assumptions set out above. The following table summarises how the estimated impact of a change in a significant assumption would affect the UK defined benefit obligation at 31 December 2016, while holding all other assumptions constant. This sensitivity analysis may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

For the most significant funded schemes, the investment strategies hedge the risks from interest rates and inflation measured on a proxy solvency basis. For the UK scheme, the interest rate and inflation hedging is currently based on UK Government bond yields without any adjustment for any credit spread. The longevity risk of approximately two thirds of UK pensioner liabilities is also hedged. Where appropriate, the table also includes the corresponding movement in the value of the plan assets.

		2016 £m	2015 £m
Reduction in the discount rate of 0.25% ¹	Obligation	(625)	(524)
	Plan assets (LDI portfolio)	630	569
Increase in inflation of 0.25% ¹	Obligation	(320)	(249)
	Plan assets (LDI portfolio)	272	231
Real increase in salaries of 0.25%	Obligations	(115)	(91)
One year increase in life expectancy	Obligations	415	(308)

¹ The differences between the sensitivities on obligations and plan assets arise largely due to differences in the methods used to value the obligations for accounting purposes and the adopted proxy solvency basis. On a UK Government bond yield basis the correlation is approximately 86% for discount rates and 89% for inflation.

20 Share capital

	Non-equity		Equity	
	Special Share of £1	Nominal value £m	Ordinary shares of 20p each millions	Nominal value £m
Issued and fully paid				
At 1 January 2015	1	—	1,882	376
Purchase and cancellation of ordinary shares			(44)	(9)
At 1 January 2016	1	—	1,838	367
Purchase and cancellation of ordinary shares	—	—	—	—
At 31 December 2016	1	—	1,838	367

The rights attaching to each class of share are set out on page 186.

In accordance with IAS 32 *Financial Instruments: Presentation*, the Company's non-cumulative redeemable preference shares (C Shares) are classified as financial liabilities. Accordingly, movements in C Shares are included in note 17.

21 Share-based payments

EFFECT OF SHARE-BASED PAYMENT TRANSACTIONS ON THE GROUP'S RESULTS AND FINANCIAL POSITION

	2016 £m	2015 £m
Total expense recognised for equity-settled share-based payments transactions	34	6
Total credit recognised for cash-settled share-based payments transactions	1	(1)
Share-based payments recognised in the consolidated income statement	35	5
Liability for cash-settled share-based payment transactions	1	—

A description of the share-based payment plans is included in the Directors' remuneration report on pages 83 to 95.

Notes to the consolidated financial statements continued

21 Share-based payments continued

MOVEMENTS IN THE GROUP'S SHARE-BASED PAYMENT PLANS DURING THE YEAR

	ShareSave		PSP	APRA
	Number Millions	Weighted average exercise price Pence	Number Millions	Number Millions
Outstanding at 1 January 2015	24.5	660	9.8	2.4
Granted	13.0	617	3.0	–
Additional entitlements arising from TSR performance	–	–	0.5	–
Forfeited	(4.6)	908	(2.9)	(0.1)
Exercised	(9.7)	445	(1.7)	(1.4)
Outstanding at 1 January 2016	23.2	677	8.7	0.9
Granted	–	–	7.3	–
Forfeited	(1.7)	752	(3.4)	–
Exercised	(0.1)	538	(1.0)	(0.9)
Outstanding 31 December 2016	21.4	672	11.6	–
Exercisable at 31 December 2016	–	–	–	–
Exercisable at 31 December 2015	–	–	–	–

As share options are exercised throughout the year, the weighted average share price during the year of **682p** (2015: 820p) is representative of the weighted average share price at the date of exercise. The closing price at 31 December 2016 was **668p** (2015: 575p).

FAIR VALUES OF SHARE-BASED PAYMENT PLANS

The weighted average fair value per share of equity-settled share-based payment plans granted during the year, estimated at the date of grant, are as follows:

	2016	2015
PSP – 25% TSR uplift	714p	1,015p
PSP – 30% TSR uplift	731p	n/a
PSP – 50% TSR uplift	795p	1,036p
ShareSave – three-year grant	n/a	192p
ShareSave – five-year grant	n/a	219p
APRA	n/a	n/a

PSP

The fair value of shares awarded under the PSP is calculated using a pricing model that takes account of the non-entitlement to dividends (or equivalent) during the vesting period and the market-based performance condition based on expectations about volatility and the correlation of share price returns in the group of FTSE 100 companies and which incorporates into the valuation the interdependency between share price performance and TSR vesting. This adjustment increases the fair value of the award relative to the share price at the date of grant.

ShareSave

The fair value of the options granted under the ShareSave plan is calculated using a binomial pricing model that assumes that participants will exercise their options at the beginning of the six-month window if the share price is greater than the exercise price. Otherwise it assumes that options are held until the expiration of their contractual term. This results in an expected life that falls somewhere between the start and end of the exercise window.

APRA

The fair value of shares awarded under APRA is calculated as the share price on the date of the award, excluding expected dividends (or equivalent).

22 Leases

OPERATING LEASES

Leases as lessee

	2016 £m	2015 ¹ £m
Rentals paid – hire of plant and machinery	48	24
– hire of other assets	176	222
Non-cancellable operating lease rentals are payable as follows:		
Within one year	200	190
Between one and five years	548	488
After five years	469	496
	1,217	1,174

¹ 2015 figures have been re-presented to follow the 'property, plant and equipment' classification of aero engines, with aero engine costs of £98m previously reported as 'hire of plant and machinery' being reclassified as 'hire of other assets' to ensure consistent treatment with 2016.

22 Leases continued

Leases as lessor

	2016 £m	2015 £m
Rentals received – credited within revenue from aftermarket services	35	25
Non-cancellable operating lease rentals are receivable as follows:		
Within one year	11	12
Between one and five years	35	18
After five years	27	8
	73	38

The Group acts as lessee and lessor for both land and buildings and gas turbine engines, and acts as lessee for some plant and equipment.

- Sublease payments of **£1m** (2015: £1m) and sublease receipts of **£35m** (2015: £25m) were recognised in the income statement in the year.
- Purchase options exist on aero engines, land and buildings and plant and equipment with the period to the purchase option date varying between one to eight years.
- Renewal options exist on aero engines, land and buildings and plant and equipment with the period to the renewal option varying between one to 51 years at terms to be negotiated upon renewal.
- Escalation clauses exist on some leases and are linked to LIBOR.
- The total future minimum sublease payments expected to be made is **£2m** (2015: £3m) and sublease receipts expected to be received are **£49m** (2015: £24m).

FINANCE LEASES

Finance lease liabilities are payable as follows:

	2016			2015		
	Payments £m	Interest £m	Principal £m	Payments £m	Interest £m	Principal £m
Within one year	7	3	4	5	2	3
Between one and five years	30	10	20	18	8	10
After five years	54	8	46	46	7	39
	91	21	70	69	17	52

23 Contingent liabilities

Contingent liabilities in respect of customer financing commitments are described in note 18.

On 6 December 2012, the Company announced that it had passed information to the Serious Fraud Office (SFO), following a request from the SFO for information about allegations of malpractice in overseas markets. On 23 December 2013, the Company announced that it had been informed by the SFO that it had commenced a formal investigation. Since the initial announcement, the Company continued its investigations and engaged with the SFO and other authorities in the UK, the US and elsewhere in relation to the matters of concern.

In January 2017, after full cooperation, the Company concluded deferred prosecution agreements with the SFO and the US Department of Justice and a leniency agreement with the MPF, the Brazilian federal prosecutors which are described on page 8. Prosecutions of individuals may follow and investigations may be commenced in other jurisdictions. In addition, we could still be affected by actions from customers and customers' financiers. The Directors are not currently aware of any matters that are likely to lead to a financial loss, but cannot anticipate all the possible actions that may be taken or their potential consequences.

Contingent liabilities exist in respect of guarantees provided by the Group in the ordinary course of business for product delivery, performance and reliability. The Group has, in the normal course of business, entered into arrangements in respect of export finance, performance bonds, countertrade obligations and minor miscellaneous items. Various Group undertakings are parties to legal actions and claims which arise in the ordinary course of business, some of which are for substantial amounts. As a consequence of the insolvency of an insurer as previously reported, the Group is no longer fully insured against known and potential claims from employees who worked for certain of the Group's UK-based businesses for a period prior to the acquisition of those businesses by the Group. While the outcome of some of these matters cannot precisely be foreseen, the Directors do not expect any of these arrangements, legal actions or claims, after allowing for provisions already made, to result in significant loss to the Group.

The Group's share of equity accounted entities' contingent liabilities is **£12m** (2015: £11m).

Notes to the consolidated financial statements continued

24 Related party transactions

	2016 £m	2015 £m
Sales of goods and services to joint ventures and associates	2,022	1,896
Purchases of goods and services from joint ventures and associates	(1,881)	(2,266)
Operating lease payments to joint ventures and associates	(101)	(88)
Guarantees of joint ventures' and associates' borrowings	5	9
Dividends received from joint ventures and associates	74	63
RRSA receipts from joint ventures and associates	22	16
Other income received from joint ventures and associates	2	2

Included in sales of goods and services to joint ventures and associates are sales of spare engines amounting to **£356m** (2015: £189m). Profit recognised in the year on such sales amounted to **£119m** (2015: £71m), including profit on current year sales and recognition of profit deferred on sales in previous years. On an underlying basis (at actual achieved rates on settled derivative transactions), the amounts were **£97m** (2015: £67m).

The aggregated balances with joint ventures are shown in notes 13 and 16. Transactions with Group pension schemes are shown in note 19.

In the course of normal operations, related party transactions entered into by the Group have been contracted on an arms-length basis.

Key management personnel are deemed to be the Directors and the members of the ELT as set out on pages 54 to 57 and 64. Remuneration for key management personnel is shown below:

	2016 £m	2015 £m
Salaries and short-term benefits	13	8
Post-retirement schemes	—	—
Share-based payments	1	—
	14	8

More detailed information regarding the Directors' remuneration, shareholdings, pension entitlements, share options and other long-term incentive plans is shown in the Directors' Remuneration Report on pages 83 to 95. The charge for share-based payments above is based on when the award is charged to the income statement in accordance with IFRS 2 *Share-Based Payments*, rather than when the shares vest, which is the basis used in the Directors' Remuneration Report.

25 Acquisitions and disposals

ACQUISITIONS

During 2016, the Group acquired trade and assets from Fluid Mechanics Inc. for £6m, giving rise to goodwill of £1m.

DISPOSALS

During 2016, the Group completed the sales of: its rigid pipes business in the UK and China to Sigma Precision Components Limited for consideration of £4m; and Allen Diesels for consideration of £3m.

26 Derivation of summary funds flow statement

	2016		2015		Source
	£m	£m	£m	£m	
*Underlying profit before tax (PBT) – page 166		813		1,432	
Depreciation of property, plant and equipment	426		378		Cash flow statement (CFS)
Amortisation of intangible assets	628		432		CFS
Impairment of goodwill	(219)		(75)		Reversal of adjustment in underlying PBT
Impairment of investments	–		2		CFS
Acquisition accounting	(115)		(124)		Reversal of adjustment in underlying PBT
*Depreciation and amortisation		720		613	
(Increase)/decrease in inventories	(161)		63		CFS
Decrease/(increase) in trade and other receivables	312		(836)		CFS adjusted for non-underlying exchange differences of £258m
(Decrease)/increase in trade and other payables	(273)		242		CFS adjusted for non-underlying exchange differences of £507m
Revaluation of trading assets	67		(13)		Reversal of adjustment in underlying PBT
*Movement on net working capital		(55)		(544)	
Additions of intangible assets	(631)		(408)		CFS
Purchases of property, plant and equipment	(585)		(487)		CFS
Government grants received	15		8		CFS
*Expenditure on PP&E and intangible assets		(1,201)		(887)	
Realised losses on hedging instruments	426		287		Reversal of adjustment in underlying PBT
Net unrealised fair value to changes to derivatives	–		(9)		Reversal of adjustment in underlying PBT
Foreign exchange on contract accounting	77		(9)		Reversal of adjustment in underlying PBT
Exceptional restructuring	(129)		(49)		Reversal of adjustment in underlying PBT
Other	(1)		(1)		Reversal of adjustment in underlying PBT
Underlying financing	102		60		Reversal of charge in underlying PBT
Non-underlying exchange differences on receivables	(258)		–		Reversal of adjustment above
Non-underlying exchange differences on payables	507		–		Reversal of adjustment above
Loss on disposal of property, plant and equipment	5		8		CFS
Joint ventures	(43)		(37)		JV dividends less share of results – CFS
Increase/(decrease) in provisions	44		(151)		CFS
Cash flows on other financial assets and liabilities	(608)		(305)		CFS
Share-based payments	35		5		CFS
Additions of unlisted investments	–		(6)		CFS
Disposal of intangible assets	8		4		CFS
Disposal of property, plant and equipment	8		33		CFS
Investments in joint ventures and associates	(30)		(15)		CFS
Net interest	(72)		(55)		Interest received and paid – CFS
Net funds of JVs reclassified to joint operations	(4)				Net cash and borrowings reclassified – CFS
Issue of ordinary shares	1		32		CFS
Purchase of ordinary shares for share schemes	(21)		(21)		CFS, 2015 includes £19m from share buyback
*Other		47		(229)	
*Trading cash flow		324		385	
Net defined benefit plans – underlying operating charge	204		213		CFS
Cash funding of defined benefit plans	(271)		(259)		CFS
*Contributions to defined benefit schemes in excess of underlying PBT charge		(67)		(46)	
*Tax		(157)		(160)	CFS
*Free cash flow		100		179	
*Shareholder payments		(301)		(421)	Redemption of C Shares – CFS
*Share buyback		–		(414)	CFS, 2015 excludes £19m retained for share incentive schemes
*Increase in share of JVs and other acquisitions and disposals		(153)		(3)	CFS
*Discontinued operations		–		(121)	CFS
*Foreign exchange		240		3	CFS
*Change in net funds		(114)		(777)	

This table shows the derivation of the summary funds flow statement (lines marked *) on page 39 from the cash flow statement on page 118.

Notes to the consolidated financial statements continued

26 Derivation of summary funds flow statement continued

Free cash flow is a measure of financial performance of the business's cash flow to see what is available for distribution among those stakeholders funding the business (including debt holders and shareholders). Free cash flow is calculated as trading cash flow less recurring tax and post-employment benefit expenses excluding capital expenditures, payments made to shareholders, amounts spent (or received) on business acquisitions and foreign exchange changes on net funds. The Board considers that free cash flow reflects cash generated from the Group's underlying trading.

	2016		2015		Source
	£m	£m	£m	£m	
Reported operating profit		44		1,499	
Realised losses on hedging instruments	(426)		(287)		Reported to underlying adjustment (note 2)
Net unrealised fair value to changes to derivatives	–		9		Reported to underlying adjustment (note 2)
Foreign exchange on contract accounting	(77)		9		Reported to underlying adjustment (note 2)
Revaluation of trading assets and liabilities	(67)		13		Reported to underlying adjustment (note 2)
Effect of acquisition accounting	115		124		Reported to underlying adjustment (note 2)
UK pension restructuring	306		–		Reported to underlying adjustment (note 2)
Impairment of goodwill	219		75		Reported to underlying adjustment (note 2)
Exceptional restructuring	129		49		Reported to underlying adjustment (note 2)
Deferred prosecution agreement costs	671		–		Reported to underlying adjustment (note 2)
Other	1		1		Reported to underlying adjustment (note 2)
Adjustments to reported operating profit		871		(7)	
Underlying profit before financing		915		1,492	
Underlying financing		(102)		(60)	Underlying income statement (note 2)
Underlying profit before tax		813		1,432	

The table below shows a reconciliation of free cash flow to the change in cash and cash equivalents presented in the consolidated cash flow statement.

	2016		2015	
	£m	£m	£m	£m
Change in cash and cash equivalents		(691)		320
Shareholder payments	301		421	
Share buy back	–		433	
Less amount retained for share incentive schemes	–		(19)	
Returns to shareholders		301		835
Net cash flow from changes in borrowings and finance leases		345		(1,095)
Increase/decrease in short-term investments		1		(5)
Increase in share in joint ventures	154		–	
Debt of joint ventures reclassified as joint operations	(9)		–	
Disposal of discontinued operations	–		121	
Acquisition of businesses	6		5	
Disposal of other businesses	(7)		(2)	
Changes in group structure		144		124
Free cash flow		100		179

Company balance sheet

At 31 December 2016

	Notes	2016 £m	2015 £m
Assets			
Non-current assets			
Investments – subsidiary undertakings	2	12,046	12,016
Current assets			
Trade and other receivables		–	–
TOTAL ASSETS		12,046	12,016
Liabilities			
Current liabilities			
Other financial liabilities	3	(28)	(29)
Trade and other payables		(1,204)	(842)
TOTAL LIABILITIES		(1,232)	(871)
NET ASSETS		10,814	11,145
Equity			
Called-up share capital	4	367	367
Share premium account		181	180
Merger reserve		7,058	7,359
Capital redemption reserve		2,001	1,699
Other reserve		156	126
Retained earnings		1,051	1,414
TOTAL EQUITY		10,814	11,145

The financial statements on pages 167 to 169 were approved by the Board on 13 February 2017 and signed on its behalf by:

WARREN EAST
Chief Executive

DAVID SMITH
Chief Financial Officer

Company's registered number: 7524813

Company statement of changes in equity

For the year ended 31 December 2016

	Attributable to ordinary shareholders						
	Share capital £m	Share premium £m	Merger reserve £m	Capital redemption reserve £m	Other reserve ¹ £m	Retained earnings £m	Total equity £m
At 1 January 2016	367	180	7,359	1,699	126	1,414	11,145
Profit for the year	–	–	–	–	–	–	–
Shares issued to share trust	–	1	–	–	–	–	1
Issue of C Shares	–	–	(301)	–	–	–	(301)
Redemption of C Shares	–	–	–	302	–	(302)	–
Acquisition of own shares ²	–	–	–	–	–	(45)	(45)
Share-based payments – direct to equity	–	–	–	–	30	(16)	14
At 31 December 2016	367	181	7,058	2,001	156	1,051	10,814

¹ The 'Other reserve' represents the value of share-based payments in respect of employees of subsidiary undertakings for which payment has not been received.

² On 2 December 2016, the Company acquired 6,854,216 of its ordinary shares (including the group's share-based payment trust) from its subsidiary, Rolls-Royce Group plc (RRG plc) for £45m which represented fair value of those shares at that date. RRG plc had previously held these shares in a share trust for the purpose of the group's share-based payment plans.

Notes to the Company financial statements

1 Accounting policies

BASIS OF ACCOUNTING

These financial statements have been prepared in accordance with Financial Reporting Standard 101 *Reduced Disclosure Framework* (FRS 101) on the historical cost basis.

In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (Adopted IFRS), but makes amendments where necessary in order to comply with the Companies Act 2006.

In these financial statements the Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- A cash flow statement and related notes.
- Comparative period reconciliations for share capital.
- The effects of new, but not yet effective accounting standards.
- The requirements of IAS 24 *Related Party Transactions* and has, therefore, not disclosed transactions between the Company and its wholly-owned subsidiaries.

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these financial statements.

As permitted by Section 408 of the Companies Act 2006, a separate income statement for the Company has not been included in these financial statements. As permitted by the audit fee disclosure regulations, disclosure of non-audit fees information is not included in respect of the Company.

INVESTMENTS IN SUBSIDIARY UNDERTAKINGS

Investments in subsidiary undertakings are reported at cost less any amounts written off.

SHARE-BASED PAYMENTS

As described in the Directors' remuneration report on pages 83 to 95, the Company grants awards of its own shares to employees of its subsidiary undertakings (see note 21 of the consolidated financial statements). The costs of share-based payments in respect of these awards are accounted for, by the Company, as an additional investment in its subsidiary undertakings. The costs are determined in accordance with IFRS 2 *Share-based Payment*. Any payments made by the subsidiary undertakings in respect of these arrangements are treated as a return of this investment.

FINANCIAL INSTRUMENTS

In accordance with IAS 32 *Financial Instruments: Presentation*, the Company's C Shares are classified as financial liabilities and held at amortised cost from the date of issue until redeemed.

2 Investments – subsidiary undertakings

	£m
Cost:	
At 1 January 2016	12,016
Additions	–
Cost of share-based payments in respect of employees of subsidiary undertakings less receipts from subsidiaries in respect of those payments	30
At 31 December 2016	12,046

3 Financial liabilities

C SHARES

Movements during the year of issued and fully paid C Shares were as follows:

	C Shares of 0.1p millions	Nominal value £m
At 1 January 2016	28,960	29
Shares issued	300,993	301
Shares redeemed	(301,828)	(302)
At 31 December 2016	28,125	28

The rights attaching to C Shares are set out on page 186.

4 Share capital

	Non-equity			Equity	
	Special Share of £1	Preference shares of £1 each	Nominal value £m	Ordinary shares of 20p each millions	Nominal value £m
Issued and fully paid					
At 1 January and 31 December 2016	1	–	–	1,838	367

The rights attaching to each class of share are set out on page 186.

In accordance with IAS 32, the Company's non-cumulative redeemable preference shares (C Shares) are classified as financial liabilities. Accordingly, movements in C Shares are included in note 3.

5 Contingent liabilities

Where the Company enters into financial guarantee contracts to guarantee the indebtedness of other companies within its group, the Company considers these to be insurance arrangements, and accounts for them as such. In this respect, the Company treats the guarantee contract as a contingent liability until such time as it becomes probable that the Company will be required to make a payment under the guarantee.

At 31 December 2016, these guarantees amounted to **£2,235m** (2015: £1,937m).

6 Other information

EMOLUMENTS OF DIRECTORS

The remuneration of the Directors of the Company is shown in the Directors' remuneration report on pages 83 to 95.

EMPLOYEES

The Company had no employees in 2016.

SHARE-BASED PAYMENTS

Shares in the Company have been granted to employees of the Group as part of share-based payment plans, and are charged in the employing company.