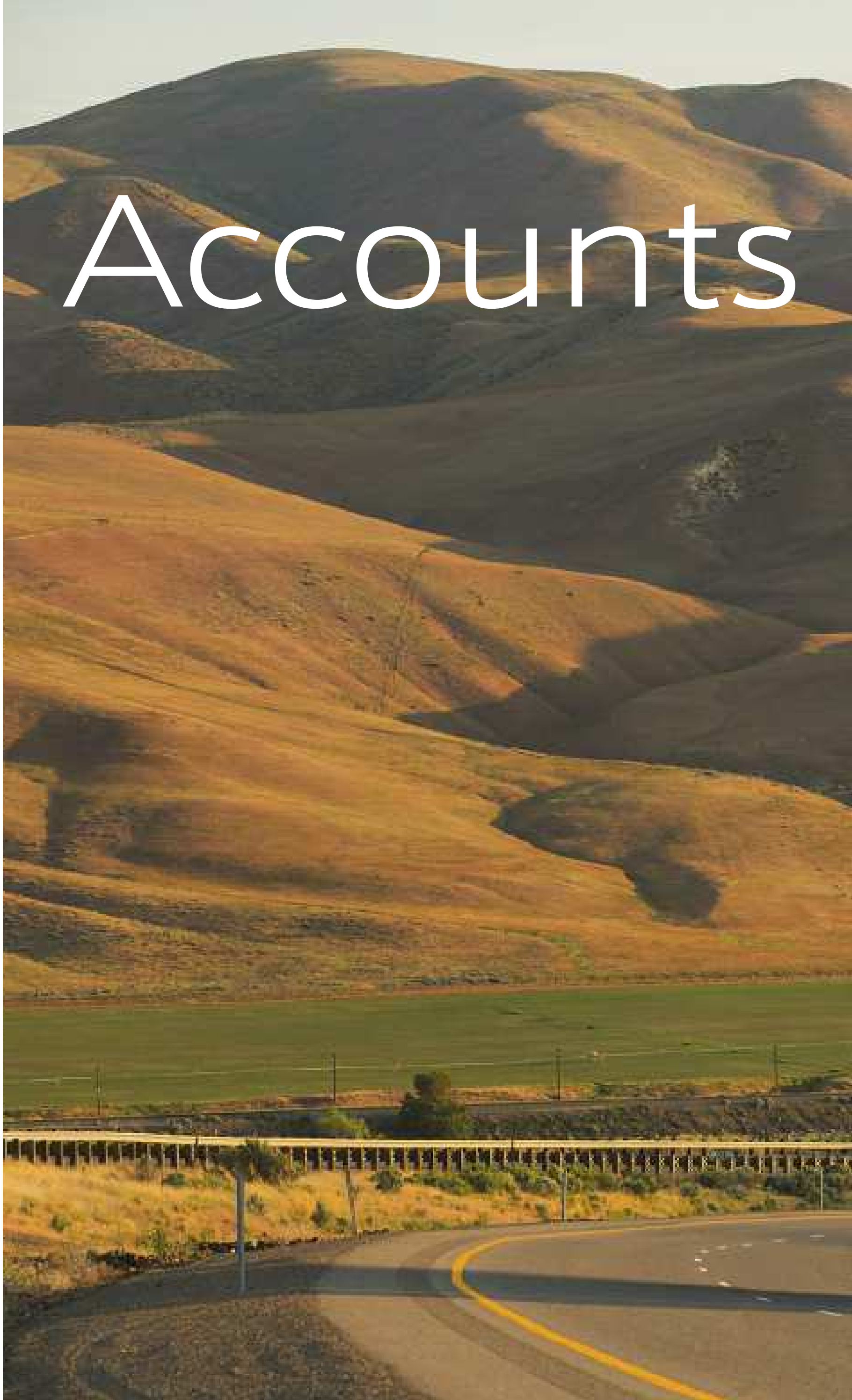
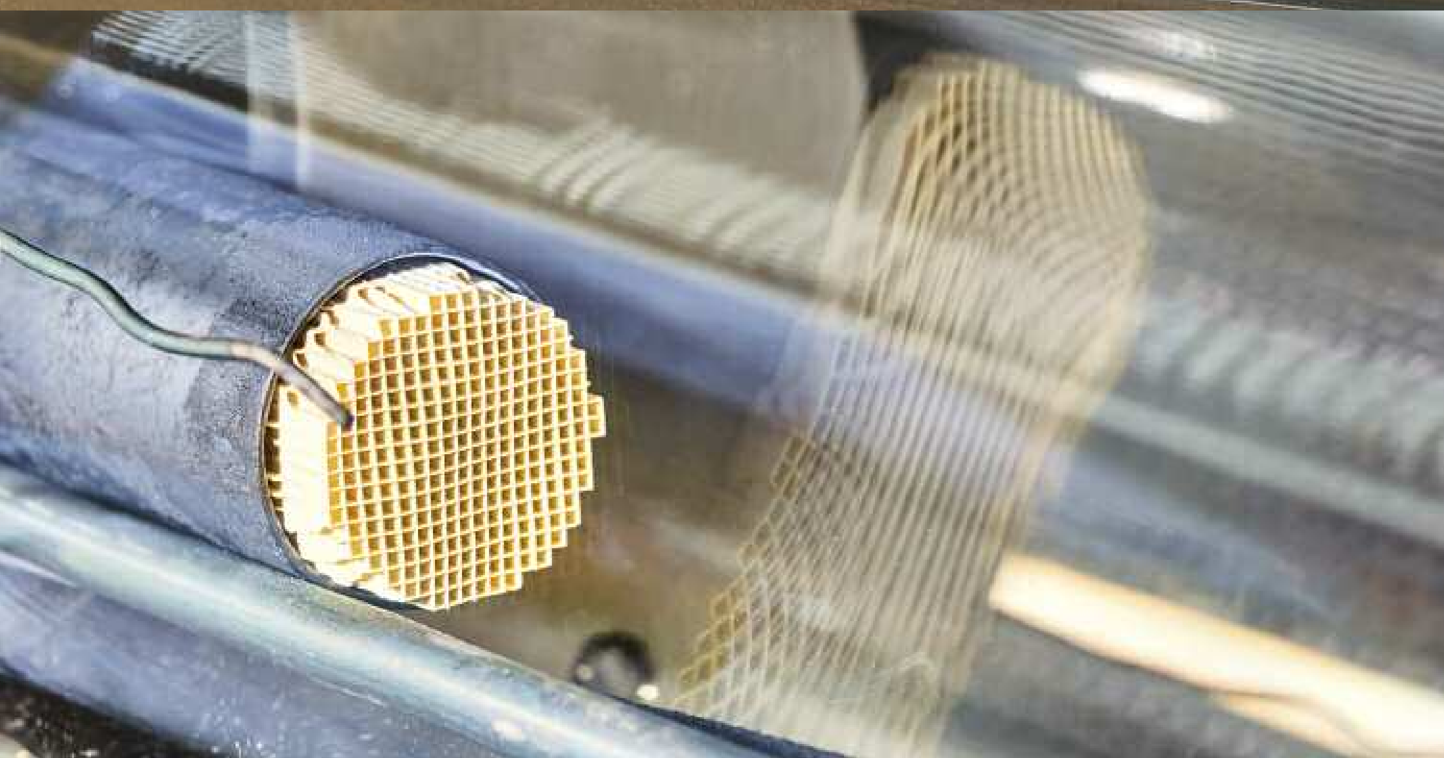
# Accounts



The Accounts include the consolidated and parent company accounts and related notes, prepared in accordance with International Financial Reporting Standards, as well as the independent auditor's report.

## Contents



# Consolidated Income Statement

for the year ended 31st March 2017

| | Notes | 2017 £ million | 2016 £ million |
|---|---|---|---|
| **Revenue** | 1,2 | **12,031.0** | 10,713.9 |
| Cost of sales | | **(11,188.0)** | (9,947.1) |
| Gross profit | | **843.0** | 766.8 |
| Distribution costs | | **(126.5)** | (126.1) |
| Administrative expenses | | **(203.2)** | (189.9) |
| Profit on sale or liquidation of businesses | | **–** | 130.0 |
| Amortisation of acquired intangibles | 3 | **(20.1)** | (20.9) |
| Major impairment and restructuring charges | | **–** | (141.0) |
| **Operating profit** | 1,5,6 | **493.2** | 418.9 |
| Finance costs | 8 | **(38.7)** | (40.2) |
| Finance income | 9 | **6.9** | 7.6 |
| Share of profit of joint venture and associate | | **0.2** | – |
| **Profit before tax** | 5 | **461.6** | 386.3 |
| Income tax expense | 10 | **(77.0)** | (60.6) |
| **Profit for the year** | | **384.6** | 325.7 |
| **Attributable to:** | | | |
| **Owners of the parent company** | | **386.0** | 333.1 |
| Non-controlling interests | | **(1.4)** | (7.4) |
| | | **384.6** | 325.7 |

| | Notes | pence | pence |
|---|---|---|---|
| **Earnings per ordinary share attributable to the equity holders of the parent company** | | | |
| Basic | 11 | **201.2** | 166.2 |
| Diluted | 11 | **200.8** | 165.9 |

# Consolidated Statement of Total Comprehensive Income

for the year ended 31st March 2017

| | Notes | 2017 £ million | 2016 £ million |
|---|---|---|---|
| **Profit for the year** | | **384.6** | 325.7 |
| **Other comprehensive income:** | | | |
| **Items that will not be reclassified to profit or loss:** | | | |
| Remeasurements of post-employment benefit assets and liabilities | 15 | **(18.4)** | 180.1 |
| Tax on above items taken directly to or transferred from equity | 32 | **2.0** | (39.1) |
| | | **(16.4)** | 141.0 |
| **Items that may be reclassified subsequently to profit or loss:** | | | |
| Currency translation differences | 33 | **163.9** | 23.8 |
| Share of currency translation differences of joint venture and associate | 20 | **1.3** | 0.3 |
| Cash flow hedges | 33 | **(1.4)** | 5.6 |
| Fair value losses on net investment hedges | 33 | **(21.0)** | (1.2) |
| Fair value gains / (losses) on available-for-sale investments | | **7.0** | (5.5) |
| Tax on above items taken directly to or transferred from equity | 32 | **(0.4)** | (4.7) |
| | | **149.4** | 18.3 |
| **Other comprehensive income for the year** | | **133.0** | 159.3 |
| **Total comprehensive income for the year** | | **517.6** | 485.0 |
| **Attributable to:** | | | |
| **Owners of the parent company** | | **518.5** | 492.8 |
| Non-controlling interests | | **(0.9)** | (7.8) |
| | | **517.6** | 485.0 |

The notes on pages 133 to 172 form an integral part of the accounts.

# Consolidated and Parent Company Balance Sheets

as at 31st March 2017

| | Notes | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| **Non-current assets** | | | | | |
| Property, plant and equipment | 16 | **1,235.1** | 1,086.3 | **282.4** | 284.1 |
| Goodwill | 17 | **607.1** | 570.0 | **123.4** | 123.4 |
| Other intangible assets | 18 | **288.3** | 225.0 | **137.1** | 80.1 |
| Investments in subsidiaries | 19 | **–** | – | **2,062.4** | 2,050.0 |
| Investments in joint venture and associate | 20 | **21.6** | 20.1 | **–** | – |
| Deferred income tax assets | 30 | **25.6** | 22.2 | **–** | – |
| Available-for-sale investments | 21 | **58.0** | 56.6 | **7.1** | 7.1 |
| Interest rate swaps | 26 | **17.4** | 11.1 | **17.4** | 11.1 |
| Other receivables | 23 | **27.7** | 15.6 | **1,120.4** | 1,081.1 |
| Post-employment benefit net assets | 15 | **116.6** | 109.1 | **106.4** | 100.8 |
| **Total non-current assets** | | **2,397.4** | 2,116.0 | **3,856.6** | 3,737.7 |
| **Current assets** | | | | | |
| Inventories | 22 | **772.3** | 653.7 | **123.8** | 123.4 |
| Current income tax assets | | **20.4** | 21.9 | **–** | – |
| Trade and other receivables | 23 | **1,139.4** | 948.0 | **1,139.4** | 968.6 |
| Cash and cash equivalents – cash and deposits | 26 | **330.4** | 304.5 | **247.7** | 226.9 |
| Interest rate swaps | 26 | **–** | 4.6 | **–** | 4.6 |
| Other financial assets | 27 | **7.5** | 8.5 | **7.6** | 9.2 |
| **Total current assets** | | **2,270.0** | 1,941.2 | **1,518.5** | 1,332.7 |
| **Total assets** | | **4,667.4** | 4,057.2 | **5,375.1** | 5,070.4 |
| **Liabilities** | | | | | |
| **Current liabilities** | | | | | |
| Trade and other payables | 24 | **(968.3)** | (812.3) | **(2,579.4)** | (2,351.2) |
| Current income tax liabilities | | **(133.5)** | (115.0) | **(14.8)** | (2.3) |
| Cash and cash equivalents – bank overdrafts | 26 | **(31.8)** | (20.7) | **(15.5)** | (13.4) |
| Other borrowings, finance leases and related swaps | 26 | **(20.2)** | (138.5) | **(2.0)** | (111.0) |
| Other financial liabilities | 27 | **(14.9)** | (17.9) | **(15.7)** | (19.0) |
| Provisions | 29 | **(21.0)** | (41.3) | **(4.5)** | (11.2) |
| **Total current liabilities** | | **(1,189.7)** | (1,145.7) | **(2,631.9)** | (2,508.1) |
| **Non-current liabilities** | | | | | |
| Borrowings, finance leases and related swaps | 26 | **(1,011.5)** | (835.9) | **(1,011.3)** | (835.3) |
| Deferred income tax liabilities | 30 | **(113.0)** | (99.4) | **(27.2)** | (35.2) |
| Employee benefit obligations | 15 | **(111.8)** | (115.1) | **(9.9)** | (10.6) |
| Provisions | 29 | **(18.4)** | (20.6) | **(17.8)** | (13.4) |
| Other payables | 24 | **(5.9)** | (5.9) | **(508.7)** | (481.1) |
| **Total non-current liabilities** | | **(1,260.6)** | (1,076.9) | **(1,574.9)** | (1,375.6) |
| **Total liabilities** | | **(2,450.3)** | (2,222.6) | **(4,206.8)** | (3,883.7) |
| **Net assets** | | **2,217.1** | 1,834.6 | **1,168.3** | 1,186.7 |
| **Equity** | | | | | |
| Share capital | 31 | **220.7** | 220.7 | **220.7** | 220.7 |
| Share premium account | | **148.3** | 148.3 | **148.3** | 148.3 |
| Shares held in employee share ownership trust (ESOT) | | **(55.5)** | (54.9) | **(55.5)** | (54.9) |
| Other reserves | 33 | **146.6** | (2.3) | **(0.7)** | (1.6) |
| Retained earnings | | **1,776.5** | 1,541.3 | **855.5** | 874.2 |
| **Total equity attributable to owners of the parent company** | | **2,236.6** | 1,853.1 | **1,168.3** | 1,186.7 |
| Non-controlling interests | | **(19.5)** | (18.5) | **–** | – |
| **Total equity** | | **2,217.1** | 1,834.6 | **1,168.3** | 1,186.7 |

The accounts were approved by the Board of Directors on 31st May 2017 and signed on its behalf by:

**R J MacLeod**
**A O Manz** Directors

The notes on pages 133 to 172 form an integral part of the accounts.

# Consolidated and Parent Company Cash Flow Statements

for the year ended 31st March 2017

| | | Group | | Parent company | |
|---|---|---|---|---|---|
| | Notes | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| **Cash flows from operating activities** | | | | | |
| Profit before tax | | **461.6** | 386.3 | **149.8** | 113.2 |
| Adjustments for: | | | | | |
| Share of profit of joint venture and associate | | **(0.2)** | – | **–** | – |
| Profit on sale of continuing activities | | **–** | (130.0) | **–** | – |
| Depreciation, amortisation, impairment losses and loss / (profit) on sale of non-current assets and investments | | **176.6** | 252.0 | **41.7** | 11.6 |
| Share-based payments | | **10.6** | (2.8) | **6.5** | (1.6) |
| (Increase) / decrease in inventories | | **(36.7)** | 211.6 | **(0.4)** | 100.7 |
| (Increase) / decrease in receivables | | **(111.1)** | 153.2 | **303.1** | 331.4 |
| Increase / (decrease) in payables | | **120.7** | 47.1 | **(136.9)** | 446.5 |
| (Decrease) / increase in provisions | | **(27.5)** | (0.7) | **(2.7)** | 5.0 |
| Contributions in excess of employee benefit obligations charge | | **(40.8)** | (21.0) | **(24.4)** | (13.7) |
| Changes in fair value of financial instruments | | **(3.2)** | 4.0 | **(3.6)** | 4.9 |
| Dividends received from subsidiaries | | **–** | – | **(37.9)** | (141.1) |
| Net finance costs | | **31.8** | 32.6 | **(19.0)** | (15.1) |
| Income tax paid | | **(58.9)** | (65.8) | **(9.0)** | (12.1) |
| **Net cash inflow from operating activities** | | **522.9** | 866.5 | **267.2** | 829.7 |
| **Cash flows from investing activities** | | | | | |
| Dividends received from joint venture | | **–** | 0.3 | **–** | – |
| Dividends received from subsidiaries | | **–** | – | **37.9** | 141.1 |
| Interest received | | **4.8** | 5.2 | **66.1** | 53.1 |
| Purchases of non-current assets and investments | 34 | **(259.5)** | (253.5) | **(113.1)** | (331.6) |
| Proceeds from sale of non-current assets and investments | | **3.9** | 4.0 | **0.3** | 107.2 |
| Purchase of interest in associate | | **–** | (16.2) | **–** | – |
| Purchases of businesses | 34 | **(19.7)** | (16.6) | **–** | (3.0) |
| Net proceeds from sale of businesses | 34 | **–** | 244.6 | **–** | – |
| **Net cash outflow from investing activities** | | **(270.5)** | (32.2) | **(8.8)** | (33.2) |
| **Cash flows from financing activities** | | | | | |
| Net cost of ESOT transactions in own shares | 34 | **(6.1)** | (3.1) | **(6.1)** | (3.1) |
| Proceeds from additional borrowings | 34 | **80.8** | 134.4 | **80.8** | 126.8 |
| Repayment of borrowings and finance leases | 34 | **(133.2)** | (211.6) | **(116.3)** | (191.4) |
| Dividends paid to equity holders of the parent company | 12 | **(139.0)** | (444.6) | **(139.0)** | (444.6) |
| Settlement of currency swaps for net investment hedging | | **(7.3)** | (4.8) | **(7.3)** | (4.8) |
| Interest paid | | **(42.1)** | (33.9) | **(51.8)** | (39.1) |
| **Net cash outflow from financing activities** | | **(246.9)** | (563.6) | **(239.7)** | (556.2) |
| **Increase in cash and cash equivalents in the year** | | **5.5** | 270.7 | **18.7** | 240.3 |
| Exchange differences on cash and cash equivalents | | **9.3** | 9.2 | **–** | – |
| Cash and cash equivalents at beginning of year | | **283.8** | 3.9 | **213.5** | (26.8) |
| **Cash and cash equivalents at end of year** | 35 | **298.6** | 283.8 | **232.2** | 213.5 |
| **Reconciliation to net debt** | | | | | |
| Increase in cash and cash equivalents in the year | | **5.5** | 270.7 | **18.7** | 240.3 |
| Decrease in borrowings and finance leases | | **52.4** | 77.2 | **35.5** | 64.6 |
| Change in net debt resulting from cash flows | | **57.9** | 347.9 | **54.2** | 304.9 |
| Borrowings acquired with subsidiaries | | **(4.8)** | – | **–** | – |
| New finance leases | | **(0.1)** | – | **–** | – |
| Exchange differences on net debt | | **(93.8)** | (28.4) | **(100.8)** | (41.3) |
| Movement in net debt in year | | **(40.8)** | 319.5 | **(46.6)** | 263.6 |
| Net debt at beginning of year | | **(674.9)** | (994.4) | **(717.1)** | (980.7) |
| **Net debt at end of year** | 26 | **(715.7)** | (674.9) | **(763.7)** | (717.1) |

The notes on pages 133 to 172 form an integral part of the accounts.

# Consolidated Statement of Changes in Equity

for the year ended 31st March 2017

| | Share capital £ million | Share premium account £ million | Shares held in ESOT £ million | Other reserves (note 33) £ million | Retained earnings £ million | Total attributable to equity holders £ million | Non-controlling interests £ million | Total equity £ million |
|---|---|---|---|---|---|---|---|---|
| At 1st April 2015 | 220.7 | 148.3 | (54.7) | (21.0) | 1,517.3 | 1,810.6 | (10.5) | 1,800.1 |
| Profit for the year | – | – | – | – | 333.1 | 333.1 | (7.4) | 325.7 |
| Remeasurements of post-employment benefit assets and liabilities | – | – | – | – | 180.1 | 180.1 | – | 180.1 |
| Cash flow hedges | – | – | – | 5.6 | – | 5.6 | – | 5.6 |
| Net investment hedges | – | – | – | (1.2) | – | (1.2) | – | (1.2) |
| Available-for-sale investments | – | – | – | (5.0) | – | (5.0) | (0.5) | (5.5) |
| Currency translation differences | – | – | – | 24.0 | – | 24.0 | 0.1 | 24.1 |
| Tax on other comprehensive income | – | – | – | (4.7) | (39.1) | (43.8) | – | (43.8) |
| Total comprehensive income | – | – | – | 18.7 | 474.1 | 492.8 | (7.8) | 485.0 |
| Dividends paid (note 12) | – | – | – | – | (444.6) | (444.6) | (0.2) | (444.8) |
| Purchase of shares by ESOT | – | – | (3.3) | – | – | (3.3) | – | (3.3) |
| Share-based payments | – | – | – | – | 4.3 | 4.3 | – | 4.3 |
| Cost of shares transferred to employees | – | – | 3.1 | – | (10.1) | (7.0) | – | (7.0) |
| Tax on share-based payments | – | – | – | – | 0.3 | 0.3 | – | 0.3 |
| At 31st March 2016 | 220.7 | 148.3 | (54.9) | (2.3) | 1,541.3 | 1,853.1 | (18.5) | 1,834.6 |
| Profit for the year | – | – | – | – | 386.0 | 386.0 | (1.4) | 384.6 |
| Remeasurements of post-employment benefit assets and liabilities | – | – | – | – | (18.4) | (18.4) | – | (18.4) |
| Cash flow hedges | – | – | – | (1.4) | – | (1.4) | – | (1.4) |
| Net investment hedges | – | – | – | (21.0) | – | (21.0) | – | (21.0) |
| Available-for-sale investments | – | – | – | 6.5 | – | 6.5 | 0.5 | 7.0 |
| Currency translation differences | – | – | – | 165.2 | – | 165.2 | – | 165.2 |
| Tax on other comprehensive income | – | – | – | (0.4) | 2.0 | 1.6 | – | 1.6 |
| Total comprehensive income | – | – | – | 148.9 | 369.6 | 518.5 | (0.9) | 517.6 |
| Dividends paid (note 12) | – | – | – | – | (139.0) | (139.0) | (0.1) | (139.1) |
| Purchase of shares by ESOT | – | – | (6.1) | – | – | (6.1) | – | (6.1) |
| Share-based payments | – | – | – | – | 17.1 | 17.1 | – | 17.1 |
| Cost of shares transferred to employees | – | – | 5.5 | – | (11.9) | (6.4) | – | (6.4) |
| Tax on share-based payments | – | – | – | – | (0.6) | (0.6) | – | (0.6) |
| **At 31st March 2017** | **220.7** | **148.3** | **(55.5)** | **146.6** | **1,776.5** | **2,236.6** | **(19.5)** | **2,217.1** |

The notes on pages 133 to 172 form an integral part of the accounts.

# Parent Company Statement of Changes in Equity

for the year ended 31st March 2017

| | Share capital £ million | Share premium account £ million | Shares held in ESOT £ million | Other reserves (note 33) £ million | Retained earnings £ million | Total equity £ million |
|---|---|---|---|---|---|---|
| At 1st April 2015 | 220.7 | 148.3 | (54.7) | (8.9) | 1,082.6 | 1,388.0 |
| Profit for the year | – | – | – | – | 112.9 | 112.9 |
| Remeasurements of post-employment benefit assets and liabilities | – | – | – | – | 164.9 | 164.9 |
| Cash flow hedges | – | – | – | 4.8 | – | 4.8 |
| Available-for-sale investments | – | – | – | 3.0 | – | 3.0 |
| Currency translation differences | – | – | – | 0.6 | – | 0.6 |
| Tax on other comprehensive income | – | – | – | (1.1) | (34.2) | (35.3) |
| Total comprehensive income | – | – | – | 7.3 | 243.6 | 250.9 |
| Dividends paid (note 12) | – | – | – | – | (444.6) | (444.6) |
| Purchase of businesses from subsidiaries | – | – | – | – | (1.7) | (1.7) |
| Purchase of shares by ESOT | – | – | (3.3) | – | – | (3.3) |
| Share-based payments | – | – | – | – | 1.6 | 1.6 |
| Cost of shares transferred to employees | – | – | 3.1 | – | (7.3) | (4.2) |
| At 31st March 2016 | 220.7 | 148.3 | (54.9) | (1.6) | 874.2 | 1,186.7 |
| Profit for the year | – | – | – | – | 133.5 | 133.5 |
| Remeasurements of post-employment benefit assets and liabilities | – | – | – | – | (21.3) | (21.3) |
| Cash flow hedges | – | – | – | (1.9) | – | (1.9) |
| Currency translation differences | – | – | – | 2.5 | – | 2.5 |
| Tax on other comprehensive income | – | – | – | 0.3 | 3.2 | 3.5 |
| Total comprehensive income | – | – | – | 0.9 | 115.4 | 116.3 |
| Dividends paid (note 12) | – | – | – | – | (139.0) | (139.0) |
| Purchase of shares by ESOT | – | – | (6.1) | – | – | (6.1) |
| Share-based payments | – | – | – | – | 15.0 | 15.0 |
| Cost of shares transferred to employees | – | – | 5.5 | – | (9.8) | (4.3) |
| Tax on share-based payments | – | – | – | – | (0.3) | (0.3) |
| **At 31st March 2017** | **220.7** | **148.3** | **(55.5)** | **(0.7)** | **855.5** | **1,168.3** |

The notes on pages 133 to 172 form an integral part of the accounts.

# Accounting Policies

for the year ended 31st March 2017



The group's and parent company's significant accounting policies, together with the judgments made by management in applying those policies which have the most significant effect on the amounts recognised in the accounts, are:

## Basis of accounting and preparation

The accounts are prepared in accordance with International Financial Reporting Standards (IFRS) and interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC) or the Standing Interpretations Committee (SIC) as adopted by the European Union. For Johnson Matthey, there are no differences between IFRS as adopted by the European Union and full IFRS as published by the International Accounting Standards Board (IASB) and so the accounts comply with IFRS.

The accounts are prepared on the historical cost basis, except for certain assets and liabilities which are measured at fair value as explained below.

The parent company has not presented its own income statement, statement of total comprehensive income and related notes as permitted by section 408 of the Companies Act 2006.

## Basis of consolidation

The consolidated accounts comprise the accounts of the parent company and all its subsidiaries, including the employee share ownership trust, and include the group's interest in joint ventures and associates. Entities the group controls are accounted for as subsidiaries. Entities that are joint ventures or associates are accounted for using the equity method of accounting. Transactions and balances between group companies are eliminated. No profit is taken on transactions between group companies.

The results of businesses acquired or disposed of in the year are consolidated from or up to the effective date of acquisition or disposal respectively. The net assets of businesses acquired are incorporated in the consolidated accounts at their fair values at the date of acquisition.

In the parent company balance sheet, businesses acquired from other group companies are incorporated at book value at the date of acquisition. The difference between the consideration paid and the book value of the net assets acquired is reflected in retained earnings.

## Foreign currencies

Foreign currency transactions are recorded in the functional currency of the relevant subsidiary, joint venture, associate or branch at the exchange rate at the date of transaction. Foreign currency monetary assets and liabilities are retranslated into the relevant functional currency at the exchange rate at the balance sheet date.

Income statements and cash flows of overseas subsidiaries, joint ventures, associates and branches are translated into sterling at the average rates for the year. Balance sheets of overseas subsidiaries, joint ventures, associates and branches, including any fair value adjustments and including related goodwill, are translated into sterling at the exchange rates at the balance sheet date.

Exchange differences arising on the translation of the net investment in overseas subsidiaries, joint ventures, associates and branches, less exchange differences arising on related foreign currency financial instruments which hedge the group's net investment in these operations, are taken to other comprehensive income. On disposal of the net investment the cumulative exchange difference is reclassified from equity to operating profit. The group has taken advantage of the exemption allowed in IFRS 1 – 'First-time Adoption of International Reporting Standards' to deem the cumulative translation difference for all overseas subsidiaries and branches to be zero at 1st April 2004.

Other exchange differences are taken to operating profit.

## Revenue

Revenue comprises all sales of goods and rendering of services at the fair value of consideration received or receivable after the deduction of any trade discounts and excluding sales taxes. Revenue is recognised when it can be measured reliably and the significant risks and rewards of ownership are transferred to the customer.

With the sale of goods this occurs either:

- when the goods are despatched or delivered in line with the International Chamber of Commerce's International Commercial Terms (Incoterms®) as detailed in the relevant contract;
- when they are made available to the customer and ownership transfers before despatch; or
- on notification that the product has been used when the goods are consignment products located at customers' premises.

With the rendering of services, revenue is recognised by reference to the stage of completion as measured by the proportion that costs incurred to date bear to the estimated total costs.

With royalties and licence income, revenue is recognised in accordance with the substance of the relevant agreement. Where they are part of a long term contract with a single overall profit margin, revenue is recognised by reference to the stage of completion of the contract.

## Long term contracts

Where the outcome of a long term contract can be estimated reliably, revenue and costs are recognised by reference to the stage of completion. This is measured by the proportion that contract costs incurred to date bear to the estimated total contract costs.

Where the outcome of a long term contract cannot be estimated reliably, contract revenue is recognised to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognised as expenses in the period in which they are incurred.

When it is probable that the total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

# Accounting Policies

for the year ended 31st March 2017

## Finance costs and finance income

Finance costs that are directly attributable to the construction of an asset that necessarily takes a substantial period of time to get ready for its intended use are capitalised as part of the cost of that asset. Other finance costs and finance income are recognised in the income statement in the year incurred.

## Grants

Grants related to assets are included in deferred income and released to the income statement in equal instalments over the expected useful lives of the related assets. Grants related to income are deducted in reporting the related expense.

## Research and development

Research expenditure is charged to the income statement in the year incurred. Development expenditure is charged to the income statement in the year incurred unless it meets the IFRS recognition criteria for capitalisation. When the recognition criteria have been met, any further development expenditure is capitalised as an intangible asset.

## Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and any provisions for impairment. Depreciation is provided at rates calculated to write off the cost less estimated residual value of each asset over its useful life. Certain freehold buildings and plant and equipment are depreciated using the units of production method, as this more closely reflects their expected consumption. All other assets are depreciated using the straight line method. The useful lives vary according to the class of the asset, but are typically: leasehold property 30 years (or the life of the lease if shorter); freehold buildings 30 years; and plant and equipment 4 to 10 years. Freehold land is not depreciated.

## Goodwill

Goodwill arises on the acquisition of a business when the fair value of the consideration given exceeds the fair value attributed to the net assets acquired (including contingent liabilities). It is subject to annual impairment reviews. Acquisition-related costs are charged to the income statement as incurred. The group and parent company have taken advantage of the exemption allowed under IFRS 1 and so goodwill arising on acquisitions made before 1st April 2004 is included at the carrying amount at that date less any subsequent impairments.

## Other intangible assets

Other intangible assets are stated at cost less accumulated amortisation and any provisions for impairment. Customer contracts are amortised when the relevant income stream occurs using either a straight line method or, where they relate to a long term contract, a stage of completion method. All other intangible assets are amortised by using the straight line method over the useful lives from the time they are first available for use. The estimated useful lives vary according to the specific asset but are typically: 1 to 15 years for customer contracts and relationships; 3 to 10 years for capitalised computer software; 3 to 20 years for patents, trademarks and licences; 4 to 10 years for acquired research and technology; and 3 to 8 years for capitalised development currently being amortised.

Intangible assets which are not yet being amortised are subject to annual impairment reviews.

## Investments in subsidiaries

Investments in subsidiaries are stated in the parent company's balance sheet at cost less any provisions for impairment. If a distribution is received from a subsidiary then the investment in that subsidiary is assessed for an indication of impairment.

## Leases

Leases are classified as finance leases whenever they transfer substantially all the risks and rewards of ownership to the group. The assets are included in property, plant and equipment and the capital elements of the leasing commitments are shown as obligations under finance leases. The assets are depreciated on a basis consistent with similar owned assets or the lease term if shorter. The interest element of the lease rental is included in the income statement.

All other leases are classified as operating leases and the lease costs are expensed on a straight line basis over the lease term.

## Precious metal inventories

Inventories of gold, silver and platinum group metals are valued according to the source from which the metal is obtained. Metal which has been purchased and committed to future sales to customers or hedged in metal markets is valued at the price at which it is contractually committed or hedged, adjusted for unexpired contango and backwardation. Other precious metal inventories owned by the group, which are unhedged, are valued at the lower of cost and net realisable value using the weighted average cost formula.

## Other inventories

Non-precious metal inventories are valued at the lower of cost, including attributable overheads, and net realisable value. Except where costs are specifically identified, the first-in, first-out cost formula is used to value inventories.

# Accounting Policies

for the year ended 31st March 2017



## Cash and cash equivalents

Cash and deposits comprise cash at bank and in hand, including short term deposits with a maturity date of three months or less from the date of acquisition. The group and parent company routinely use short term bank overdraft facilities, which are repayable on demand, as an integral part of their cash management policy. Therefore cash and cash equivalents in the cash flow statements are cash and deposits less bank overdrafts. Offset arrangements across group businesses have been applied to arrive at the net cash and overdraft figures.

## Derivative financial instruments

The group and parent company use derivative financial instruments, in particular forward currency contracts and currency swaps, to manage the financial risks associated with their underlying business activities and the financing of those activities. The group and parent company do not undertake any speculative trading activity in derivative financial instruments.

Derivative financial instruments are measured at their fair value. Derivative financial instruments may be designated at inception as fair value hedges, cash flow hedges or net investment hedges if appropriate. Derivative financial instruments which are not designated as hedging instruments are classified under IFRS as held for trading, but are used to manage financial risk.

The vast majority of forward precious metal price contracts are entered into and held for the receipt or delivery of precious metal and so are not recorded at fair value. If a forward precious metal price contract will be settled net in cash then it is designated and accounted for as a cash flow hedge.

Changes in the fair value of any derivative financial instruments that are not designated as or are not determined to be effective hedges are recognised immediately in the income statement.

Changes in the fair value of derivative financial instruments designated as fair value hedges are recognised in the income statement, together with the related changes in the fair value of the hedged asset or liability. Fair value hedge accounting is discontinued if the hedging instrument expires or is sold, terminated or exercised, the hedge no longer meets the criteria for hedge accounting or the designation is revoked.

Changes in the fair value of derivative financial instruments designated as cash flow hedges are recognised in other comprehensive income, to the extent that the hedges are effective. Ineffective portions are recognised in the income statement immediately. If the hedged item results in the recognition of a non-financial asset or liability, the amount previously recognised in other comprehensive income is transferred out of equity and included in the initial carrying amount of the asset or liability. Otherwise, the amount previously recognised in other comprehensive income is transferred to the income statement in the same period that the hedged item is recognised in the income statement. If the hedging instrument expires or is sold, terminated or exercised, the hedge no longer meets the criteria for hedge accounting or the designation is revoked, amounts previously recognised in other comprehensive income remain in equity until the forecast transaction occurs. If a forecast transaction is no longer expected to occur, the amounts previously recognised in other comprehensive income are transferred to the income statement.

For hedges of net investments in foreign operations, the effective portion of the gain or loss on the hedging instrument is recognised in other comprehensive income, while the ineffective portion is recognised in the income statement. Amounts taken to other comprehensive income are reclassified from equity to the income statement when the foreign operations are sold or liquidated.

## Other financial instruments

All other financial instruments are initially recognised at fair value plus transaction costs. Subsequent measurement is as follows:

- Borrowings are measured at amortised cost unless they are designated as being fair value hedged, in which case they are remeasured for the fair value changes in respect of the hedged risk with these changes recognised in the income statement.
- Available-for-sale investments which are investments in equity instruments that have a quoted market price in an active market are fair valued at that price with the gain or loss recognised in other comprehensive income. Investments in equity instruments that do not have a quoted market price in an active market are valued at fair value if it can be measured reliably with the gain or loss recognised in other comprehensive income. If the fair value cannot be measured reliably, they are measured at cost.
- Other available-for-sale investments are measured at fair value with interest calculated using the effective interest method recognised in financial income and the remaining gain or loss recognised in other comprehensive income until the investment is derecognised. At that time the cumulative gain or loss recognised in other comprehensive income will be transferred from equity to operating profit.
- All other financial assets and liabilities, including short term receivables and payables, are measured at amortised cost less any impairment provision.

## Taxation

Current and deferred tax are recognised in the income statement, except when they relate to items recognised directly in equity when the related tax is also recognised in equity.

Current tax is the amount of income tax expected to be paid in respect of taxable profits using the tax rates that have been enacted or substantively enacted at the balance sheet date.

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amount in the balance sheet. It is provided using the tax rates that are expected to apply in the period when the asset or liability is settled, based on tax rates that have been enacted or substantively enacted at the balance sheet date.

Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. No deferred tax asset or liability is recognised in respect of temporary differences associated with investments in subsidiaries and branches where the group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

# Accounting Policies

for the year ended 31st March 2017

## Provisions and contingencies

Provisions are recognised when the group has a present obligation as a result of a past event and a reliable estimate can be made of a probable adverse outcome, for example warranties, environmental claims and restructurings. Otherwise, material contingent liabilities are disclosed unless the transfer of economic benefits is remote. Contingent assets are only disclosed if an inflow of economic benefits is probable.

The parent company considers financial guarantees of its subsidiaries' borrowings and precious metal leases to be insurance contracts. These are treated as contingent liabilities unless it becomes probable that it will be required to make a payment under the guarantee.

## Share-based payments and employee share ownership trust (ESOT)

The fair value of outstanding shares allocated to employees under the long term incentive plan is calculated by adjusting the share price on the date of allocation for the present value of the expected dividends that will not be received. The resulting cost is charged to the income statement over the relevant vesting periods, adjusted to reflect actual and expected levels of vesting where appropriate.

The group and parent company provide finance to the ESOT to purchase company shares in the open market. Costs of running the ESOT are charged to the income statement. The cost of shares held by the ESOT is deducted in arriving at equity until they vest unconditionally with employees.

## Pensions and other post-employment benefits

The costs of defined contribution plans are charged to the income statement as they fall due.

For defined benefit plans, the group and parent company recognise the net assets or liabilities of the plans in their balance sheets. Obligations are measured at present value using the projected unit credit method and a discount rate reflecting yields on high quality corporate bonds. Assets are measured at their fair value at the balance sheet date. The changes in plan assets and liabilities, based on actuarial advice, are recognised as follows:

- The current service cost is deducted in arriving at operating profit.
- The net interest cost, based on the discount rate at the beginning of the year, contributions paid in and the present value of the net defined benefit liabilities during the year, is included in finance costs.
- Past service costs and curtailment gains and losses are recognised in operating profit at the earlier of when the plan amendment or curtailment occurs and when any related restructuring costs or termination benefits are recognised.
- Gains or losses arising from settlements are included in operating profit when the settlement occurs.
- Remeasurements, representing returns on plan assets excluding amounts included in interest and actuarial gains and losses arising from changes in demographic and financial assumptions, are recognised in other comprehensive income.

## Standards and interpretations adopted in the year

IFRS 14 – 'Regulatory Deferral Accounts', Amendments to IFRS 11 – 'Accounting for Acquisitions of Interests in Joint Operations', Amendments to International Accounting Standard (IAS) 16 and IAS 38 – 'Clarification of Acceptable Methods of Depreciation and Amortisation', Amendments to IAS 16 and IAS 41 – 'Agriculture: Bearer Plants', Amendments to IAS 27 – 'Equity Method in Separate Financial Statements', Amendments to IFRS 10 and IAS 28 – 'Sale or Contribution of Assets between an Investor and its Associate or Joint Venture', Amendments to IFRS 10, IFRS 12 and IAS 28 – 'Investment Entities: Applying the Consolidation Exception', Amendments to IAS 1 – 'Disclosure Initiative' and 'Annual Improvements to IFRSs 2012-2014 Cycle' were adopted during the year. There was no material impact on the reported results or financial position of the group and parent company.

## Standards and interpretations issued but not yet applied

IFRS 9 – 'Financial Instruments' will be adopted from 1st April 2018. The group's evaluation of the effect of the adoption of this standard is ongoing but it is not currently anticipated that it will have a material effect on the reported results and financial position of the group and parent company.

IFRS 15 – 'Revenue from Contracts with Customers' will be adopted from 1st April 2018. The group has performed initial reviews of some of its major contracts spread across its divisions. Based on the results of this review the group believes that IFRS 15 will not have a significant impact on the timing and recognition of revenue, although it is anticipated that there will be some impact as a result of allocating revenue to the various performance obligations. The group has now commenced a systematic review of all existing major contracts to ensure that the impact is fully understood in advance of the effective date.

IFRS 16 – 'Leases' will be adopted from 1st April 2019. The effect on the reported results and financial position of the group and parent company is still being evaluated.

The effects of any standards and interpretations amended or issued after 30th April 2017 have not yet been evaluated.

The group and parent company do not consider that any other standards or interpretations issued by the IASB but not yet applicable will have a significant impact on their reported results or net assets.

# Notes on the Accounts

for the year ended 31st March 2017

## 1 Segmental information

For management purposes, the group is organised into five operating divisions – Emission Control Technologies, Process Technologies, Precious Metal Products, Fine Chemicals and New Businesses. Each division is represented by a director on the Board of Directors. These operating divisions represent the group's segments. Their principal activities are described on pages 28 to 43. The performance of the divisions is assessed by the Board of Directors on underlying operating profit, which is before amortisation of acquired intangibles, major impairment and restructuring charges and profit or loss on sale or liquidation of businesses. Each division is also assessed on sales excluding the value of precious metals including inter-segment sales (referred to as sales excluding precious metals below). Sales between segments are made at market prices, taking into account the volumes involved.

The group received £1,835.0 million of revenue from one external customer (2016: £1,685.0 million) which is 15% (2016: 16%) of the group's revenue from external customers. The revenue is reported in Precious Metal Products as it is generated by the group's precious metal management activities and so has a very low return on sales.

**Year ended 31st March 2017**

| | Emission Control Technologies £ million | Process Technologies £ million | Precious Metal Products £ million | Fine Chemicals £ million | New Businesses £ million | Eliminations £ million | Total £ million |
|---|---|---|---|---|---|---|---|
| Revenue from external customers | 3,779.5 | 537.8 | 7,206.1 | 308.9 | 198.7 | – | 12,031.0 |
| Inter-segment revenue | 175.0 | 63.7 | 1,688.0 | 6.0 | 2.5 | (1,935.2) | – |
| Total revenue | 3,954.5 | 601.5 | 8,894.1 | 314.9 | 201.2 | (1,935.2) | 12,031.0 |
| External sales excluding precious metals | 2,223.1 | 523.4 | 363.4 | 278.7 | 188.9 | – | 3,577.5 |
| Inter-segment sales | 0.4 | 63.4 | 39.7 | 4.8 | 2.4 | (110.7) | – |
| **Sales excluding precious metals** | 2,223.5 | 586.8 | 403.1 | 283.5 | 191.3 | (110.7) | 3,577.5 |
| Segmental underlying operating profit / (loss) | 318.2 | 90.4 | 86.4 | 64.5 | (14.4) | – | 545.1 |
| Unallocated corporate expenses | | | | | | | (31.8) |
| **Underlying operating profit** | | | | | | | 513.3 |
| Amortisation of acquired intangibles (note 3) | | | | | | | (20.1) |
| Operating profit | | | | | | | 493.2 |
| Net finance costs | | | | | | | (31.8) |
| Share of profit of joint venture and associate | | | | | | | 0.2 |
| **Profit before tax** | | | | | | | 461.6 |
| Segmental net assets | 1,090.2 | 802.4 | 347.9 | 554.1 | 162.4 | – | 2,957.0 |
| Net debt | | | | | | | (715.7) |
| Post-employment benefit net assets and liabilities | | | | | | | 4.8 |
| Deferred income tax assets and liabilities | | | | | | | (87.4) |
| Provisions and non-current other payables | | | | | | | (45.3) |
| Investments in joint venture and associate | | | | | | | 21.6 |
| Unallocated corporate net assets | | | | | | | 82.1 |
| Net assets | | | | | | | 2,217.1 |
| Segmental capital expenditure | 88.5 | 27.4 | 29.4 | 61.2 | 18.3 | – | 224.8 |
| Other additions to non-current assets (excluding financial, deferred tax and post-employment benefit net assets) | 3.5 | – | – | – | 24.0 | – | 27.5 |
| Segmental total additions to non-current assets | 92.0 | 27.4 | 29.4 | 61.2 | 42.3 | – | 252.3 |
| Corporate capital expenditure | | | | | | | 39.9 |
| Total additions to non-current assets | | | | | | | 292.2 |
| Segment depreciation and amortisation | 68.4 | 29.2 | 20.9 | 21.0 | 6.1 | – | 145.6 |
| Corporate depreciation | | | | | | | 6.1 |
| Amortisation of acquired intangibles (note 3) | | | | | | | 20.1 |
| Total depreciation and amortisation | | | | | | | 171.8 |

**5. Accounts**

# Notes on the Accounts

for the year ended 31st March 2017

## 1 Segmental information (continued)

**Year ended 31st March 2016**

| | Emission Control Technologies £ million | Process Technologies £ million | Precious Metal Products £ million | Fine Chemicals £ million | New Businesses £ million | Eliminations £ million | Total £ million |
|---|---|---|---|---|---|---|---|
| Revenue from external customers | 3,262.8 | 519.4 | 6,454.1 | 318.5 | 159.1 | – | 10,713.9 |
| Inter-segment revenue | 221.0 | 31.3 | 1,213.3 | 6.4 | 1.6 | (1,473.6) | – |
| Total revenue | 3,483.8 | 550.7 | 7,667.4 | 324.9 | 160.7 | (1,473.6) | 10,713.9 |
| External sales excluding precious metals | 1,912.7 | 510.0 | 307.9 | 291.4 | 155.0 | – | 3,177.0 |
| Inter-segment sales | 0.4 | 31.2 | 34.6 | 4.8 | 1.5 | (72.5) | – |
| **Sales excluding precious metals** | 1,913.1 | 541.2 | 342.5 | 296.2 | 156.5 | (72.5) | 3,177.0 |
| Segmental underlying operating profit / (loss) | 272.2 | 73.6 | 66.3 | 82.3 | (17.9) | – | 476.5 |
| Unallocated corporate expenses | | | | | | | (25.7) |
| **Underlying operating profit** | | | | | | | 450.8 |
| Profit on sale or liquidation of businesses | | | | | | | 130.0 |
| Amortisation of acquired intangibles (note 3) | | | | | | | (20.9) |
| Major impairment and restructuring charges | | | | | | | (141.0) |
| Operating profit | | | | | | | 418.9 |
| Net finance costs | | | | | | | (32.6) |
| **Profit before tax** | | | | | | | 386.3 |
| Segmental net assets | 903.2 | 756.2 | 313.5 | 457.3 | 100.8 | – | 2,531.0 |
| Net debt | | | | | | | (674.9) |
| Post-employment benefit net assets and liabilities | | | | | | | (6.0) |
| Deferred income tax assets and liabilities | | | | | | | (77.2) |
| Provisions and non-current other payables | | | | | | | (67.8) |
| Investment in joint venture | | | | | | | 20.1 |
| Unallocated corporate net assets | | | | | | | 109.4 |
| Net assets | | | | | | | 1,834.6 |
| Segmental capital expenditure | 68.9 | 37.0 | 39.8 | 54.5 | 7.4 | – | 207.6 |
| Other additions to non-current assets (excluding financial, deferred tax and post-employment benefit net assets) | 2.0 | 16.2 | 16.2 | 2.6 | 17.3 | – | 54.3 |
| Segmental total additions to non-current assets | 70.9 | 53.2 | 56.0 | 57.1 | 24.7 | – | 261.9 |
| Corporate capital expenditure | | | | | | | 49.4 |
| Total additions to non-current assets | | | | | | | 311.3 |
| Segment depreciation and amortisation | 61.3 | 29.0 | 17.8 | 18.7 | 7.9 | – | 134.7 |
| Corporate depreciation | | | | | | | 4.6 |
| Amortisation of acquired intangibles (note 3) | | | | | | | 18.3 |
| Total depreciation and amortisation | | | | | | | 157.6 |

The group's country of domicile is the UK. Revenue from external customers is based on the customer's location. Non-current assets are based on the location of the assets and exclude financial assets, deferred tax assets and post-employment benefit net assets.

| | Revenue from external customers | | Non-current assets | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| UK | **3,639.8** | 3,511.5 | **838.8** | 775.4 |
| Germany | **1,118.1** | 983.5 | **260.4** | 211.8 |
| Rest of Europe | **1,654.6** | 1,302.2 | **239.6** | 221.7 |
| USA | **2,216.4** | 2,044.5 | **494.9** | 413.9 |
| Rest of North America | **319.2** | 171.4 | **38.0** | 28.8 |
| China (including Hong Kong) | **1,123.7** | 1,024.8 | **163.7** | 137.7 |
| Rest of Asia | **1,320.3** | 1,199.1 | **124.5** | 110.6 |
| Rest of World | **638.9** | 476.9 | **19.7** | 17.0 |
| Total | **12,031.0** | 10,713.9 | **2,179.6** | 1,916.9 |

# Notes on the Accounts

for the year ended 31st March 2017

## 2 Revenue

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Sale of goods | **11,853.2** | 10,547.5 |
| Rendering of services | **128.6** | 126.3 |
| Royalties and licence income | **49.2** | 40.1 |
| **Total revenue** | **12,031.0** | 10,713.9 |

## 3 Amortisation of acquired intangibles

The amortisation of intangible assets which arise on the acquisition of businesses, together with any subsequent impairment of these intangible assets, is shown separately on the face of the income statement. It is excluded from underlying operating profit.

## 4 Effect of exchange rate changes on translation of foreign subsidiaries' sales excluding precious metals and operating profit

| | 2017 | 2016 |
|---|---|---|
| US dollar / £ | **1.308** | 1.510 |
| Euro / £ | **1.191** | 1.367 |
| Chinese renminbi / £ | **8.79** | 9.60 |

The main impact of exchange rate movements on the group's sales and operating profit comes from the translation of foreign subsidiaries' results into sterling.

| | Year ended 31st March 2017 £ million | Year ended 31st March 2016 At last year's rates £ million | Year ended 31st March 2016 At this year's rates £ million | Change at this year's rates % |
|---|---|---|---|---|
| **Sales excluding precious metals** | | | | |
| Emission Control Technologies | **2,223.5** | 1,913.1 | 2,139.1 | +4 |
| Process Technologies | **586.8** | 541.2 | 588.6 | – |
| Precious Metal Products | **403.1** | 342.5 | 380.5 | +6 |
| Fine Chemicals | **283.5** | 296.2 | 325.6 | -13 |
| New Businesses | **191.3** | 156.5 | 173.8 | +10 |
| Elimination of inter-segment sales | **(110.7)** | (72.5) | (79.9) | |
| **Sales excluding precious metals** | **3,577.5** | 3,177.0 | 3,527.7 | +1 |
| Less Research Chemicals | **–** | (38.3) | (43.9) | |
| **Sales excluding precious metals for continuing businesses** | **3,577.5** | 3,138.7 | 3,483.8 | +3 |
| **Underlying operating profit** | | | | |
| Emission Control Technologies | **318.2** | 272.2 | 313.2 | +2 |
| Process Technologies | **90.4** | 73.6 | 83.0 | +9 |
| Precious Metal Products | **86.4** | 66.3 | 74.1 | +17 |
| Fine Chemicals | **64.5** | 82.3 | 91.6 | -30 |
| New Businesses | **(14.4)** | (17.9) | (16.3) | +12 |
| Unallocated corporate expenses | **(31.8)** | (25.7) | (25.7) | |
| **Underlying operating profit** | **513.3** | 450.8 | 519.9 | -1 |
| Less Research Chemicals | **–** | (7.5) | (8.3) | |
| **Underlying operating profit for continuing businesses** | **513.3** | 443.3 | 511.6 | – |

Fine Chemicals' Research Chemicals business was sold on 30th September 2015.

**5. Accounts**

# Notes on the Accounts

for the year ended 31st March 2017

## 5 Underlying profit reconciliation

| | 2017 £ million | 2016 £ million |
|---|---|---|
| **Underlying operating profit, continuing businesses at constant rates (note 4)** | **513.3** | 511.6 |
| Underlying operating profit of Research Chemicals | **–** | 8.3 |
| Translation exchange effect to this year's rates | **–** | (69.1) |
| **Underlying operating profit (note 4)** | **513.3** | 450.8 |
| Profit on sale or liquidation of businesses | **–** | 130.0 |
| Amortisation of acquired intangibles (note 3) | **(20.1)** | (20.9) |
| Major impairment and restructuring charges | **–** | (141.0) |
| **Operating profit** | **493.2** | 418.9 |
| **Underlying profit before tax** | **481.7** | 418.2 |
| Profit on sale or liquidation of businesses | **–** | 130.0 |
| Amortisation of acquired intangibles (note 3) | **(20.1)** | (20.9) |
| Major impairment and restructuring charges | **–** | (141.0) |
| **Profit before tax** | **461.6** | 386.3 |
| **Tax on underlying profit before tax** | **(82.0)** | (67.4) |
| Tax on profit on sale or liquidation of businesses | **–** | (15.5) |
| Tax on amortisation of acquired intangibles (note 3) | **5.0** | 4.9 |
| Tax on major impairment and restructuring charges | **–** | 17.4 |
| **Income tax expense** | **(77.0)** | (60.6) |

## 6 Operating profit

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Operating profit is arrived at after charging / (crediting): | | |
| Total research and development expenditure | **200.7** | 188.0 |
| less development expenditure capitalised | **(18.9)** | (13.2) |
| Research and development charged | **181.8** | 174.8 |
| less external funding received – from government grants | **(9.5)** | (8.7) |
| – from other organisations | **(4.6)** | (5.5) |
| Net research and development | **167.7** | 160.6 |
| Other government grants | **(0.3)** | (0.1) |
| Inventories recognised as an expense | **10,275.4** | 9,117.4 |
| Write-down of inventories recognised as an expense | **11.8** | 15.6 |
| Reversal of write-down of inventories arising from increases in net realisable value | **(8.0)** | (2.4) |
| Net losses on foreign exchange | **16.5** | 3.1 |
| Net gains on foreign currency forwards held for trading | **(5.8)** | (5.3) |
| Depreciation of property, plant and equipment | **138.9** | 127.9 |
| Amortisation of internally generated intangible assets included in cost of sales | **7.7** | 6.7 |
| Amortisation of other intangible assets included in – cost of sales | **2.6** | 2.1 |
| – distribution costs | **0.8** | – |
| – administrative expenses | **1.7** | 2.6 |
| – amortisation of acquired intangibles (note 3) | **20.1** | 18.3 |
| Operating lease rentals payable – minimum lease payments | **19.2** | 18.1 |
| – sublease payments received | **(0.1)** | – |

# Notes on the Accounts

for the year ended 31st March 2017



## 7 Fees payable to auditors

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Fees payable to the company's auditor and its associates for: | | |
| The audit of these accounts | **0.7** | 0.6 |
| The audit of the accounts of the company's subsidiaries | **1.4** | 1.4 |
| Total audit | **2.1** | 2.0 |
| Audit-related assurance services | **0.1** | 0.1 |
| Total audit and audit-related services | **2.2** | 2.1 |
| Taxation compliance services | **0.1** | 0.1 |
| Taxation advisory services | **–** | 0.1 |
| All other assurance services | **0.4** | 0.3 |
| All other services | **0.1** | 0.1 |
| **Total fees payable to the company's auditor and its associates** | **2.8** | 2.7 |

Fees payable for services to the group's pension plans for the audit of the pension plan accounts were £0.1 million (2016: £ nil).

Audit fees paid to other auditors were £0.1 million (2016: £ nil).

## 8 Finance costs

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Net loss on remeasurement of foreign currency swaps held for trading | **4.9** | 0.1 |
| Net losses on financial assets and liabilities classified as held for trading | **4.9** | 0.1 |
| Net loss on remeasurement of fair value hedges and related hedged items to fair value | **0.9** | – |
| Interest payable on financial liabilities measured at amortised cost | **31.9** | 33.3 |
| Interest on post-employment benefits | **–** | 6.6 |
| Unwinding of discount on provisions and non-current payables | **1.0** | 0.2 |
| **Total finance costs** | **38.7** | 40.2 |

## 9 Finance income

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Interest receivable on interest rate swaps | **3.9** | 2.1 |
| Net gains on financial assets and liabilities classified as held for trading | **3.9** | 2.1 |
| Net gain on remeasurement of fair value hedges and related hedged items to fair value | **–** | 0.5 |
| Interest receivable on available-for-sale investments, loans and receivables | **3.0** | 5.0 |
| **Total finance income** | **6.9** | 7.6 |

## 10 Taxation

| | 2017 £ million | 2016 £ million |
|---|---|---|
| **Current tax** | | |
| Corporation tax on profits for the year | **81.9** | 104.0 |
| Benefit from previously unrecognised tax losses, tax credits or temporary differences | **(0.6)** | (5.1) |
| Adjustment for prior years | **(11.8)** | (21.1) |
| Total current tax | **69.5** | 77.8 |
| **Deferred tax** | | |
| Origination and reversal of temporary differences | **8.9** | (15.1) |
| Changes in tax rates and laws | **(3.9)** | (5.6) |
| Write-downs, or reversal of previous write-downs, of deferred tax assets | **0.5** | 1.5 |
| Adjustment for prior years | **2.0** | 2.0 |
| Total deferred tax | **7.5** | (17.2) |
| **Income tax expense** | **77.0** | 60.6 |

**5. Accounts**

# Notes on the Accounts

for the year ended 31st March 2017

## 10 Taxation (continued)

The tax charge for the year can be reconciled to the profit per the income statement as follows:

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Profit before tax | **461.6** | 386.3 |
| Tax expense at UK corporation tax rate of 20% (2016: 20%) | **92.3** | 77.3 |
| Effects of: | | |
| Overseas tax rates | **13.3** | 12.3 |
| Expenses not deductible for tax purposes | **4.5** | 12.3 |
| Unutilised losses | **2.8** | 6.9 |
| Utilisation of tax losses and tax incentives | **(9.5)** | (11.1) |
| Adjustments for prior years | **(9.8)** | (19.1) |
| Innovation – tax incentives | **(16.7)** | (11.1) |
| Reduction in deferred tax resulting from decrease in UK tax rates | **(3.4)** | (5.6) |
| Disposals | **–** | (8.1) |
| Irrecoverable withholding tax | **4.5** | 8.8 |
| Other | **(1.0)** | (2.0) |
| Tax expense for the year | **77.0** | 60.6 |

Expenses not deductible for tax purposes in 2016 included certain non-deductible costs related to the group's restructuring activities. Utilisation of tax losses and tax incentives is mainly the benefit of the tax incentives in Macedonia. Adjustments for prior years includes some overseas tax provision releases following the successful conclusion of negotiations with the relevant tax authorities and the decreasing risk of questions as time passes (2016: the impact of successful resolution of overseas tax audits and the expiry of relevant statute of limitations). Other includes the movement on certain global tax provisions whose ultimate outcome cannot be ascertained with certainty.

In October 2015 the UK government substantively enacted changes in the UK corporation tax rate from 20% to 19% from 1st April 2017 and to 18% from 1st April 2020 and so the UK deferred tax balances at 31st March 2016 had been recalculated at those new rates. In September 2016 a further change to 17% from 1st April 2020 was enacted and so the UK deferred tax balances at 31st March 2017 have been recalculated at this new rate.

## 11 Earnings per ordinary share

| | 2017 pence | 2016 pence |
|---|---|---|
| Basic | **201.2** | 166.2 |
| Diluted | **200.8** | 165.9 |

Earnings per ordinary share have been calculated by dividing the profit attributable to owners of the parent company by the weighted average number of shares in issue during the period.

| | 2017 | 2016 |
|---|---|---|
| **Weighted average number of shares in issue** | | |
| Basic | **191,850,710** | 200,470,481 |
| Dilution for share options and long term incentive plans | **350,862** | 274,966 |
| Diluted | **192,201,572** | 200,745,447 |

Underlying earnings per ordinary share are calculated as follows:

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Profit for the year attributable to equity holders of the parent company | **386.0** | 333.1 |
| Profit on sale or liquidation of businesses | **–** | (130.0) |
| Amortisation of acquired intangibles (note 3) | **20.1** | 20.9 |
| Major impairment and restructuring charges | **–** | 141.0 |
| Tax thereon | **(5.0)** | (6.8) |
| Underlying profit for the year | **401.1** | 358.2 |

| | pence | pence |
|---|---|---|
| Underlying earnings per share | | |
| Basic | **209.1** | 178.7 |
| Diluted | **208.7** | 178.4 |

# Notes on the Accounts
for the year ended 31st March 2017

## 12 Dividends

| | 2017 £ million | 2016 £ million |
|---|---|---|
| 2014/15 final ordinary dividend paid – 49.5 pence per share | **–** | 100.5 |
| Special dividend paid – 150.0 pence per share | **–** | 304.5 |
| 2015/16 interim ordinary dividend paid – 19.5 pence per share | **–** | 39.6 |
| 2015/16 final ordinary dividend paid – 52.0 pence per share | **99.7** | – |
| 2016/17 interim ordinary dividend paid – 20.5 pence per share | **39.3** | – |
| **Total dividends** | **139.0** | 444.6 |

A final dividend of 54.5 pence per ordinary share has been proposed by the board which will be paid on 1st August 2017 to shareholders on the register at the close of business on 9th June 2017, subject to shareholders' approval. The estimated amount to be paid is £104.5 million and has not been recognised in these accounts.

## 13 Employee and key management personnel costs

### 13a Employee numbers

| | 2017 | 2016 |
|---|---|---|
| The average monthly number of employees during the year was: | | |
| Emission Control Technologies | **4,911** | 4,929 |
| Process Technologies | **2,095** | 2,377 |
| Precious Metal Products | **2,139** | 2,195 |
| Fine Chemicals | **1,274** | 1,367 |
| New Businesses | **1,101** | 993 |
| Corporate and Central Research | **694** | 633 |
| **Average number of employees** | **12,214** | 12,494 |
| **Actual number of employees at 31st March** | **12,306** | 12,325 |

The number of temporary employees included above at 31st March 2017 was 547 (2016: 627).

The actual number of staff was:

| | At 31st March 2017 | | | At 31st March 2016 | | |
|---|---|---|---|---|---|---|
| | Actual employees | Agency staff | Total headcount | Actual employees | Agency staff | Total headcount |
| Emission Control Technologies | **4,948** | **416** | **5,364** | 4,963 | 483 | 5,446 |
| Process Technologies | **2,068** | **29** | **2,097** | 2,226 | 46 | 2,272 |
| Precious Metal Products | **2,137** | **112** | **2,249** | 2,180 | 127 | 2,307 |
| Fine Chemicals | **1,292** | **6** | **1,298** | 1,238 | 6 | 1,244 |
| New Businesses | **1,125** | **201** | **1,326** | 1,047 | 248 | 1,295 |
| Corporate and Central Research | **736** | **46** | **782** | 671 | 56 | 727 |
| **Total** | **12,306** | **810** | **13,116** | 12,325 | 966 | 13,291 |

### 13b Employee benefits expense

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Wages and salaries | **526.2** | 478.0 |
| Social security costs | **56.3** | 50.7 |
| Pension and other post-employment costs | **45.9** | 70.5 |
| Termination benefits | **5.0** | 37.9 |
| Share-based payments | **17.1** | 4.3 |
| **Total employee benefits expense** | **650.5** | 641.4 |

# Notes on the Accounts

for the year ended 31st March 2017

## 13 Employee and key management personnel costs (continued)

### 13c Key management personnel

The key management of the group and parent company consist of the Board of Directors and the members of the Group Management Committee (GMC). During the year ended 31st March 2017 the GMC had an average of 10 members (2016: 10 members). Their compensation charged in the year was:

| | **2017 £ million** | 2016 £ million |
|---|---|---|
| Short term employee benefits | **5.6** | 5.6 |
| Pension and other post-employment costs | **0.1** | 0.2 |
| Share-based payments | **3.0** | (0.3) |
| Termination benefits | **1.5** | 0.6 |
| Non-executive directors' fees and benefits | **0.7** | 0.7 |
| **Total compensation of key management personnel** | **10.9** | 6.8 |

The compensation above are the only transactions with key management personnel. Balances outstanding at the year end were termination benefits of £1.5 million. Information on the directors' remuneration is given in the Remuneration Report on pages 97 to 116.

## 14 Share-based payments

### Long Term Incentive Plan (LTIP)

Under the LTIP, shares are allocated to approximately 1,300 of the group's executive directors, senior managers and middle managers based on a percentage of salary and are subject to performance targets over a three year period. At 31st March 2017, shares allocated in 2014, 2015 and 2016 (at 31st March 2016: shares allocated in 2013, 2014 and 2015) were outstanding in respect of which the performance period has not expired. For the 2016 allocations, the minimum release of 15% of the allocation is subject to achieving underlying earnings per share (uEPS) growth of 4% compound per annum over the three year period and the full release is subject to uEPS growing by at least 10% compound per annum. For the 2015 allocations, the minimum release of 15% is subject to achieving uEPS growth of 6% compound per annum and the full release is subject to uEPS growing by at least 12% compound per annum. For allocations prior to 2015, the minimum release of 15% is subject to achieving uEPS growth of 6% compound per annum and the full release is subject to uEPS growing by at least 15% compound per annum. The number of allocated shares released will vary on a straight line basis between these points. Allocations will lapse if the uEPS growth is less than the minimum. Allocations in 2014 onwards to the executive directors only are also subject to a deferred release whereby a third is released on the third anniversary of the allocation date and the remaining vested shares are released in equal instalments on the fourth and fifth anniversaries of the allocation date; plus the Remuneration Committee is entitled to claw back the allocations in cases of misstatement or misconduct. Of the 2013 allocations, 32.51% were released during the year.

### Share options

Prior to 31st March 2007 equity settled share options were granted to employees at the average of the market value of the company's shares over the three days prior to the date of grant and had a maximum life of ten years. The number of shares over which options were granted was based on a percentage of the employee's salary and approximately 800 employees were granted options each year. Options granted were subject to a minimum three year performance target of uEPS growth of UK RPI plus 3% per annum. Other performance targets were uEPS growth of UK RPI plus 4% per annum and uEPS growth of UK RPI plus 5% per annum. If the performance targets were not met at the end of the three year performance period, the options would lapse. The 3% and 4% targets were met and so these options were exercisable. The 5% target was not met and so these options lapsed. Gains were capped at 100% of the grant price.

### Deferred bonus

A proportion of the bonus payable to executive directors and members of the Group Management Committee is awarded as shares and deferred for three years. The Remuneration Committee is entitled to claw back the deferred element in cases of misstatement or misconduct or other relevant reason as determined by it.

### All employee share incentive plan (SIP) – UK and Overseas

Under the SIP, all employees with at least one year of service with the group and who are employed by a participating group company are entitled to contribute up to 2.5% of base pay each month, subject to a £125 per month limit. The SIP trustees buy shares (partnership shares) at market value each month with the employees' contributions. For each partnership share purchased, the group purchases two shares (matching shares) which are allocated to the employee. In the UK SIP, if the employee sells or transfers partnership shares within three years from the date of allocation, the linked matching shares are forfeited. In the Overseas SIP, partnership shares and matching shares are subject to a three year holding period and cannot be sold or transferred during that time.

### 401k approved savings investment plans (401k plans)

In the US there are two 401k plans, one for salaried employees and one for hourly employees. Salaried employees may contribute up to 50% of their base pay and hourly employees up to 20% of their base pay, both subject to a statutory limit. Salaried employees choosing Johnson Matthey Plc shares matching are matched 100% of the first 4% contributed and hourly employees are matched 50% of the first 6% contributed. Employees may contribute after one month of service and are eligible for matching after one year of service.

# Notes on the Accounts

for the year ended 31st March 2017



## 14 Share-based payments (continued)

Further details of the directors' remuneration under share-based payment plans are given in the Remuneration Report on pages 97 to 116.

Share options were exercised on a regular basis throughout the first four months of the year. The average share price during this period was 2,930.3 pence (2016: exercised on a regular basis over the year and the average share price over that year was 2,801.1 pence). Activity relating to share options was:

| | **2017 Number of options** | **2017 Weighted average exercise price pence** | 2016 Number of options | 2016 Weighted average exercise price pence |
|---|---|---|---|---|
| Outstanding at the start of the year | **5,845** | **1,282.0** | 19,967 | 1,246.5 |
| Forfeited during the year | **(1,312)** | **1,282.0** | (2,240) | 1,129.3 |
| Exercised during the year | **(4,533)** | **1,282.0** | (11,882) | 1,251.1 |
| Outstanding and exercisable at the end of the year | **–** | | 5,845 | 1,282.0 |

Details of share options outstanding at the end of the year are:

| | **2017 Number of options** | **2017 Weighted average remaining life years** | 2016 Number of options | 2016 Weighted average remaining life years |
|---|---|---|---|---|
| **Range of exercise price** | | | | |
| 1,200 pence to 1,300 pence | **–** | **–** | 5,845 | 0.3 |

The fair value of the shares allocated during the year under the LTIP was 3,066.3 pence per share allocation (2016: 2,718.8 pence per share allocation). The fair value was based on the share price at the date of allocation of 3,273.0 pence (2016: 2,915.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.18% (2016: 2.33%).

Activity relating to the LTIP was:

| | **2017 Number of allocated shares** | 2016 Number of allocated shares |
|---|---|---|
| Outstanding at the start of the year | **2,138,725** | 2,262,365 |
| Allocated during the year | **881,548** | 807,172 |
| Forfeited during the year | **(144,373)** | (124,364) |
| Released during the year | **(226,858)** | (105,881) |
| Expired during the year | **(473,281)** | (700,567) |
| Outstanding at the end of the year | **2,175,761** | 2,138,725 |

The fair value of the shares awarded during the year under the deferred bonus was 3,000.4 pence per share award (2016: 2,656.3 pence per share award), based on the share price at the date of award of 3,273.0 pence (2016: 2,915.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.18% (2016: 2.33%).

Activity relating to the deferred bonus was:

| | **2017 Number of awarded shares** | 2016 Number of awarded shares |
|---|---|---|
| Outstanding at the start of the year | **69,237** | 57,844 |
| Awarded during the year | **16,008** | 43,868 |
| Released during the year | **(1,289)** | (32,475) |
| Outstanding at the end of the year | **83,956** | 69,237 |

196,276 (2016: 227,014) matching shares under the SIP and 14,870 (2016: 34,684) shares under the 401k plans were allocated to employees during the year. They are nil cost awards on which performance conditions are substantially completed at the date of grant. Consequently the fair value of these awards is based on the market value of the shares at that date.

The total expense recognised during the year in respect of equity settled share-based payments, taking into account expected lapses due to leavers and the probability that EPS performance conditions will not be met, was £17.1 million (2016: £4.3 million).

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits

### 15a Group

The group operates a number of post-employment retirement and medical benefit plans around the world, the forms of which vary with conditions and practices in the countries concerned. The retirement plans in the UK, US and other countries include both defined contribution and defined benefit plans.

For defined contribution plans, retirement benefits are determined by the value of funds arising from contributions paid in respect of each employee and the investment returns on those contributions prior to retirement. The group also makes payments to employees' personal pension plans.

For defined benefit plans, which include final salary, career average and other types of plans with committed pension payments, the retirement benefits are based on factors such as the employee's pensionable salary and length of service. The majority of the group's final salary and career average defined benefit retirement plans are now closed to new entrants but remain open to ongoing accrual for current members.

The group's principal defined benefit retirement plans are funded through separate fiduciary or trustee administered funds that are independent of the sponsoring company. The contributions paid to these arrangements are jointly agreed by the sponsoring company and the relevant trustee or fiduciary body after each funding valuation and in consultation with independent qualified actuaries. The plans' assets together with the agreed funding contributions should be sufficient to meet the plans' future pension obligations.

The group's principal post-employment medical plans are in the UK and US and are unfunded arrangements that have been closed to new entrants for over ten years.

**Regulatory framework and governance**

The UK pension plan, the Johnson Matthey Employees Pension Scheme (JMEPS), is a registered arrangement and established under trust law and, as such, is subject to UK pension, tax and trust legislation. It is managed by a corporate trustee, JMEPS Trustees Limited. The trustee board includes representatives appointed by both the parent company and employees and includes an independent chairman.

Although the parent company bears the financial cost of the plan, the trustee directors are responsible for the overall management and governance of JMEPS, including compliance with all applicable legislation and regulations. The trustee directors are required by law to act in the interest of all relevant beneficiaries and to set certain policies; to manage the day to day administration of the benefits; and to set the plan's investment strategy following consultation with the parent company.

UK pensions are regulated by the Pensions Regulator whose statutory objectives and regulatory powers are described on its website: www.thepensionsregulator.gov.uk.

The US pension plans are qualified pension arrangements and are subject to the requirements of the Employee Retirement Income Security Act, the Pension Protection Act 2006 and the Department of Labor and Internal Revenue. The plans are managed by a pension committee which acts as the fiduciary and, as such, is ultimately responsible for the management of the plans' investments; compliance with all applicable legislation and regulations; and overseeing the general management of the plans.

Other trustee or fiduciary arrangements that have similar responsibilities and obligations are in place for the group's other funded defined benefit pension plans outside of the UK and US.

**Benefits**

The UK pension plan is segregated into two sections – a legacy section which provides final salary and career average pension benefits and a cash balance section. The final salary element of the legacy section was closed to future accrual of benefits from 1st April 2010 and the career average element of the legacy section was closed to new entrants on 1st October 2012 but remains open to future accrual for existing members. All new entrants join the cash balance section of the plan.

The legacy section provides benefits to members in the form of a set level of pension payable for life based on the member's length of service and final pensionable salary at retirement or averaged over their career with the parent company. The benefits attract inflation-related increases both before and after retirement.

The cash balance section provides benefits to members at the point of retirement in the form of a cash lump sum. The benefits attract inflation-related increases before retirement but following the payment of the retirement lump sum benefit the plan has no obligation to pay any further benefits to the member.

The group operates two defined benefit pension plans in the US. The hourly pension plan is for unionised employees and provides a fixed retirement benefit for life based upon years of service. The salaried pension plan provides retirement benefits for life based on the member's length of service and final pensionable salary (averaged over the last five years). The salaried plan benefits attract inflation-related increases before leaving but are non-increasing thereafter. On retirement, members in either plan have the option to take the cash value of their benefit instead of a lifetime annuity in which case the plan has no obligation to pay any further benefits to the member.

The US salaried pension plan was closed to new entrants on 1st September 2013 but remains open to future accrual for existing members. All new non-unionised US employees now join a defined contribution plan.

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits (continued)

### 15a Group (continued)

**Funding**

UK legislation requires that pension plans are funded prudently and that when undertaking a funding valuation (every three years) assets are taken at their market value and the liabilities are determined based on a set of prudent assumptions set by the trustee following consultation with their appointed actuary. The assumptions used for funding valuations may therefore differ to the actuarial assumptions used for IAS 19 accounting purposes.

The last funding valuation of JMEPS was carried out as at 1st April 2015. This valuation showed that there was a deficit of £69 million in the legacy section of the plan, or £28 million after taking account of the future additional deficit funding contributions from the special purpose vehicle (SPV) set up in January 2013. To address the deficit, the parent company agreed to continue to make deficit contributions of £23.1 million per year up to 31st December 2019. The valuation also revealed a surplus of £2 million in the defined benefit cash balance section.

The SPV was set up to provide additional deficit reduction contributions and to provide greater security to the trustee. The group invested £50.0 million in a bond portfolio which is beneficially held by the SPV. The income generated by the SPV is used to make annual distributions of £3.5 million to JMEPS for a period of up to 25 years. These annual distributions are only payable if the legacy section of JMEPS continues to be in deficit. This bond portfolio is held as a non-current available-for-sale investment (note 21) and the group's liability to pay the income to the plan is not a plan asset under IAS 19, although it is for actuarial funding valuation purposes. The SPV is exempt from the requirement to prepare audited annual accounts as it is included on a consolidated basis in these accounts.

In accordance with the governing documentation of JMEPS, any future plan surplus would be returned to the parent company by way of a refund assuming gradual settlement of the liabilities over the lifetime of the plan. As such, there are no adjustments required in respect of IFRIC 14 – 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction'.

The last annual review of the US defined benefit pension plans was carried out by a qualified actuary as at 1st July 2016 which showed a surplus of US $2.2 million. The assumptions used for funding valuations may differ to the actuarial assumptions used for IAS 19 accounting purposes.

Similar funding valuations are undertaken on the group's other defined benefit pension plans outside of the UK and US in accordance with prevailing local legislation.

**Risk management**

The group is exposed to a number of risks relating to its post-retirement pension plans, the most significant of which are:

| Risk | Mitigation |
|---|---|
| **Market (investment) risk**<br>Asset returns may not move in line with the liabilities and may be subject to volatility. | The group's various plans have highly diversified investment portfolios, investing in a wide range of assets that provide reasonable assurance that no single security or type of security could have a material adverse impact on the plan.<br>A de-risking strategy is in place to reduce volatility in the plans as a result of the mismatch between the assets and liabilities. As the funding level of the plans improve and hit pre-agreed triggers, plan investments are switched from return seeking assets to liability matching assets.<br>The plans also implement partial currency hedging on their overseas assets to mitigate currency risk. |
| **Interest rate (discount rate) risk**<br>Liabilities are sensitive to movements in bond yields (interest rates), with lower interest rates leading to an increase in the valuation of liabilities, albeit the impact on the plan's funding level will be partially offset by an increase in the value of its bond holdings. | The group's defined benefit plans hold a high proportion of their assets in government or corporate bonds, which provide a natural hedge against falling interest rates.<br>In the UK, this interest rate hedge is extended by the use of interest rate swaps. The swaps are held with several banks to reduce counterparty risk. |
| **Inflation risk**<br>Liabilities are sensitive to movements in inflation, with higher inflation leading to an increase in the valuation of liabilities. | Where plan benefits provide inflation-related increases, the plan holds some inflation-linked assets which provide a natural hedge against higher than expected inflation increases.<br>In the UK, this inflation hedge is extended by the use of inflation rate swaps. The swaps are held with several banks to reduce counterparty risk. |
| **Longevity risk**<br>The majority of the group's defined benefit plans provide benefits for the life of the member, so the liabilities are sensitive to life expectancy, with increases in life expectancy leading to an increase in the valuation of liabilities. | The group has closed most of its defined benefit pension plans to new entrants replacing them with either a cash balance plan or defined contribution plans, both of which are unaffected by life expectancy.<br>For the plans where a benefit for life continues to be payable, prudent mortality assumptions are used that appropriately allow for a future improvement in life expectancy. These assumptions are reviewed on a regular basis to minimise the risk of using an inappropriate assumption. |

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits (continued)

### 15a Group (continued)

**Financial assumptions**

Qualified independent actuaries have updated the funding valuations under IAS 19 of the group's major defined benefit plans to 31st March 2017. The assumptions used are chosen from a range of possible actuarial assumptions which, due to the long term nature of the plans, may not necessarily be borne out in practice. The main financial assumptions used were:

| | 2017 UK plans % | 2017 US plans % | 2017 Other plans % | 2016 UK plans % | 2016 US plans % | 2016 Other plans % |
|---|---|---|---|---|---|---|
| First (2016: first 2) year's rate of increase in salaries | **3.10** | **3.00** | **2.59** | 3.00 | 3.00 | 2.50 |
| Ultimate rate of increase in salaries | **3.85** | **3.00** | **2.59** | 3.75 | 3.00 | 2.50 |
| Rate of increase in pensions in payment | **3.05** | **–** | **1.12** | 2.90 | – | 1.05 |
| Discount rate | **2.60** | **4.10** | **2.15** | 3.70 | 4.00 | 2.43 |
| Inflation | | **2.20** | **1.61** | | 2.20 | 1.53 |
| – UK RPI | **3.10** | | | 3.00 | | |
| – UK CPI | **2.10** | | | 2.20 | | |
| Current medical benefits cost trend rate | **5.40** | **2.95** | **–** | 5.40 | 6.90 | – |
| Ultimate medical benefits cost trend rate | **5.40** | **2.95** | **–** | 5.40 | 4.50 | – |

**Demographic assumptions**

The mortality assumptions are based on country-specific mortality tables and where appropriate include an allowance for future improvements in life expectancy. In addition, where credible data exists, actual plan experience is taken into account. The group's most substantial pension liabilities are in the UK and the US where, using the mortality tables adopted, the expected future lifetime of average members currently at age 65 and average members at age 65 in 25 years' time (i.e. members who are currently aged 40 years) is respectively:

| | Currently age 65 | | Age 65 in 25 years | |
|---|---|---|---|---|
| | UK plan | US plans | UK plan | US plans |
| Male | **21.6** | **21.4** | **23.8** | **23.5** |
| Female | **24.2** | **23.4** | **26.5** | **25.4** |

**Sensitivities**

The calculations of the defined benefit obligations are sensitive to the assumptions used. The following summarises the estimated impact of a change in the assumption on the group's main plans while holding all other assumptions constant. This sensitivity analysis may not be representative of the actual change as it is unlikely that the change in assumptions would occur in isolation of one another.

A 0.1% change in the discount rate and rate of increase in salaries would have the following increases / (decreases) on the pension plans' defined benefit obligations at 31st March 2017:

| | 0.1% increase | | 0.1% decrease | |
|---|---|---|---|---|
| | UK plan £ million | US plans £ million | UK plan £ million | US plans £ million |
| Effect of discount rate | **(36.7)** | **(4.0)** | **37.7** | **4.2** |
| Effect of inflation | **35.4** | **–** | **(34.5)** | **–** |
| Effect of rate of increase in salaries | **2.9** | **1.2** | **(3.0)** | **(1.1)** |

A one year increase in life expectancy would have the following increase on:

| | UK plan £ million | US plans £ million |
|---|---|---|
| Pension defined benefit obligation | **61.1** | **5.4** |

A 1% point change in the assumed medical cost trend rates would have the following increase / (decrease) on:

| | 1% point increase | | 1% point decrease | |
|---|---|---|---|---|
| | UK plan £ million | US plan £ million | UK plan £ million | US plan £ million |
| Post-retirement medical plan defined benefit obligation | **1.3** | **–** | **(1.1)** | **–** |

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits (continued)

### 15a Group (continued)

**Estimated effect on future cash flows**

It is estimated that the group will contribute about £70 million to the post-employment defined benefits plans during the year ending 31st March 2018.

The maturity profile of the defined benefit obligations will also affect future cash flows. The estimated weighted average durations of the defined benefit obligations of the main plans at 31st March 2017 are:

| | UK pension years | UK post-retirement medical benefits years | US pensions years | US post-retirement medical benefits years |
|---|---|---|---|---|
| Weighted average duration | **20.1** | **13.3** | **13.0** | **14.4** |

**Financial information**

Movements in the fair value of the plan assets during the year were:

| | UK pension £ million | UK post-retirement medical benefits £ million | US pensions £ million | US post-retirement medical benefits £ million | Other £ million | Total £ million |
|---|---|---|---|---|---|---|
| At 1st April 2015 | 1,538.9 | – | 249.9 | – | 40.5 | 1,829.3 |
| Interest income | 52.6 | – | 9.3 | – | 0.8 | 62.7 |
| Return on plan assets excluding interest | (27.6) | – | (8.6) | – | (5.0) | (41.2) |
| Employee contributions | 4.1 | – | 0.8 | 0.3 | 0.2 | 5.4 |
| Company contributions | 59.9 | 0.4 | 8.2 | 1.0 | 1.6 | 71.1 |
| Benefits paid | (47.1) | (0.4) | (12.1) | (1.3) | (1.2) | (62.1) |
| Exchange adjustments | – | – | 7.4 | – | 2.5 | 9.9 |
| At 31st March 2016 | 1,580.8 | – | 254.9 | – | 39.4 | 1,875.1 |
| Interest income | 58.6 | – | 11.1 | – | 1.1 | 70.8 |
| Return on plan assets excluding interest | 303.3 | – | (1.5) | – | 1.4 | 303.2 |
| Employee contributions | 4.0 | – | 0.8 | 0.4 | 0.3 | 5.5 |
| Company contributions | 56.2 | 0.4 | 9.6 | 1.2 | 2.4 | 69.8 |
| Benefits paid | (55.0) | (0.4) | (21.2) | (1.6) | (1.5) | (79.7) |
| Exchange adjustments | – | – | 38.5 | – | 4.2 | 42.7 |
| **At 31st March 2017** | **1,947.9** | **–** | **292.2** | **–** | **47.3** | **2,287.4** |

The fair values of plan assets were:

| | **2017 UK pension £ million** | **2017 US pensions £ million** | **2017 Other £ million** | 2016 UK pension £ million | 2016 US pensions £ million | 2016 Other £ million |
|---|---|---|---|---|---|---|
| Quoted corporate bonds | **1,068.6** | **143.3** | **0.4** | 896.9 | 124.8 | 4.3 |
| Inflation and interest rate swaps | **73.1** | **–** | **–** | 31.2 | – | – |
| Quoted government bonds | **25.6** | **96.8** | **–** | 14.5 | 82.2 | – |
| Cash and cash equivalents | **52.2** | **0.7** | **0.4** | 34.3 | 1.1 | 0.4 |
| Quoted equity | **654.0** | **51.4** | **1.9** | 535.5 | 46.8 | 1.7 |
| Unquoted equity | **16.9** | **–** | **–** | 10.9 | – | – |
| Property | **57.5** | **–** | **0.2** | 57.5 | – | 0.2 |
| Insurance policies | **–** | **–** | **44.4** | – | – | 32.8 |
| | **1,947.9** | **292.2** | **47.3** | 1,580.8 | 254.9 | 39.4 |

The defined benefit pension plans do not invest directly in Johnson Matthey Plc shares and no property or other assets owned by the pension plans are used by the group.

The assets for the cash balance section of the UK plan are held separately from the assets of the legacy section. At 31st March 2017 the defined benefit obligation related to the contributory cash balance section was £32.7 million and the fair value of the plan assets was £32.3 million.

Past service costs in the UK pension plan were pension enhancements for eligible employees who have been made redundant. A past service credit arose in the US post-retirement medical benefits plan due to plan amendments capping the group's contribution towards medical coverage by limiting the increase in medical inflation to a cost of living increase and giving retirees a choice between the current Platinum plan and a Gold plan.

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits (continued)

### 15a Group (continued)

**Financial information** (continued)

Movements in the defined benefit obligation during the year were:

| | UK pension £ million | UK post-retirement medical benefits £ million | US pensions £ million | US post-retirement medical benefits £ million | Other £ million | Total £ million |
|---|---|---|---|---|---|---|
| At 1st April 2015 | (1,616.1) | (11.0) | (276.5) | (52.7) | (72.8) | (2,029.1) |
| Current service cost – in operating profit | (37.4) | – | (9.8) | (1.3) | (2.4) | (50.9) |
| Current service cost – capitalised | (0.6) | – | – | – | – | (0.6) |
| Past service costs | (5.4) | – | (0.5) | 7.1 | – | 1.2 |
| Interest cost | (55.5) | (0.4) | (10.4) | (1.9) | (1.3) | (69.5) |
| Curtailment gains | – | – | 1.2 | – | – | 1.2 |
| Employee contributions | (4.1) | – | (0.8) | (0.3) | (0.2) | (5.4) |
| Remeasurements due to changes in: | | | | | | |
| Demographic assumptions | 73.4 | (0.2) | 1.5 | 2.3 | 0.2 | 77.2 |
| Financial assumptions | 118.6 | 0.7 | 14.8 | (1.8) | 11.5 | 143.8 |
| Benefits paid | 47.1 | 0.4 | 12.1 | 1.3 | 1.2 | 62.1 |
| Transferred from liabilities classified as held for sale | – | – | – | – | (0.7) | (0.7) |
| Exchange adjustments | – | – | (7.9) | (1.3) | (5.0) | (14.2) |
| At 31st March 2016 | (1,480.0) | (10.5) | (276.3) | (48.6) | (69.5) | (1,884.9) |
| Current service cost – in operating profit | (28.5) | – | (10.1) | (0.8) | (2.2) | (41.6) |
| Current service cost – capitalised | (1.0) | – | – | – | – | (1.0) |
| Past service costs | (2.5) | – | – | 16.8 | – | 14.3 |
| Interest cost | (55.0) | (0.4) | (12.2) | (1.8) | (1.7) | (71.1) |
| Employee contributions | (4.0) | – | (0.8) | (0.4) | (0.3) | (5.5) |
| Remeasurements due to changes in: | | | | | | |
| Demographic assumptions | 76.8 | 2.2 | 5.8 | 0.5 | 2.1 | 87.4 |
| Financial assumptions | (402.3) | (1.3) | 1.8 | (2.8) | (4.7) | (409.3) |
| Benefits paid | 55.0 | 0.4 | 21.2 | 1.6 | 1.5 | 79.7 |
| Exchange adjustments | – | – | (41.7) | (6.7) | (6.8) | (55.2) |
| **At 31st March 2017** | **(1,841.5)** | **(9.6)** | **(312.3)** | **(42.2)** | **(81.6)** | **(2,287.2)** |

Under the US Medicare legislation, a government subsidy is receivable as the US post-retirement medical benefits plan is actuarially equivalent to the Medicare Prescription Drug Act. Also, there is an insurance policy taken out to reinsure the pension commitments of one of the other small pension plans which does not meet the definition of a qualifying insurance policy. These are accounted for as reimbursement rights and are shown on the balance sheet in post-employment benefits net assets.

Movements in the reimbursement rights during the year were:

| | UK pension £ million | UK post-retirement medical benefits £ million | US pensions £ million | US post-retirement medical benefits £ million | Other £ million | Total £ million |
|---|---|---|---|---|---|---|
| At 1st April 2015 | – | – | – | 6.1 | – | 6.1 |
| Interest income | – | – | – | 0.2 | – | 0.2 |
| Return on assets excluding interest | – | – | – | 0.3 | – | 0.3 |
| Reimbursement to company | – | – | – | (0.1) | – | (0.1) |
| Transferred from assets classified as held for sale | – | – | – | – | 0.5 | 0.5 |
| Exchange adjustments | – | – | – | 0.2 | – | 0.2 |
| At 31st March 2016 | – | – | – | 6.7 | 0.5 | 7.2 |
| Interest income | – | – | – | 0.3 | – | 0.3 |
| Return on assets excluding interest | – | – | – | 0.3 | – | 0.3 |
| Reimbursement to company | – | – | – | (0.1) | – | (0.1) |
| Exchange adjustments | – | – | – | 1.1 | 0.2 | 1.3 |
| **At 31st March 2017** | **–** | **–** | **–** | **8.3** | **0.7** | **9.0** |

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits (continued)

### 15a Group (continued)

**Financial information** (continued)

The net post-employment benefit assets and liabilities were:

| | UK pension £ million | UK post-retirement medical benefits £ million | US pensions £ million | US post-retirement medical benefits £ million | Other £ million | Total £ million |
|---|---|---|---|---|---|---|
| **At 31st March 2017** | | | | | | |
| Defined benefit obligation | **(1,841.5)** | **(9.6)** | **(312.3)** | **(42.2)** | **(81.6)** | **(2,287.2)** |
| Fair value of plan assets | **1,947.9** | **–** | **292.2** | **–** | **47.3** | **2,287.4** |
| Reimbursement rights | **–** | **–** | **–** | **8.3** | **0.7** | **9.0** |
| Net post-employment benefit assets and liabilities | **106.4** | **(9.6)** | **(20.1)** | **(33.9)** | **(33.6)** | **9.2** |
| **At 31st March 2016** | | | | | | |
| Defined benefit obligation | (1,480.0) | (10.5) | (276.3) | (48.6) | (69.5) | (1,884.9) |
| Fair value of plan assets | 1,580.8 | – | 254.9 | – | 39.4 | 1,875.1 |
| Reimbursement rights | – | – | – | 6.7 | 0.5 | 7.2 |
| Net post-employment benefit assets and liabilities | 100.8 | (10.5) | (21.4) | (41.9) | (29.6) | (2.6) |

These are included in the balance sheet as:

| | **2017 Post-employment benefit net assets £ million** | **2017 Employee benefit obligations £ million** | **2017 Total £ million** | 2016 Post-employment benefit net assets £ million | 2016 Employee benefit obligations £ million | 2016 Total £ million |
|---|---|---|---|---|---|---|
| UK pension plan | **106.4** | **–** | **106.4** | 100.8 | – | 100.8 |
| UK post-retirement medical benefits plan | **–** | **(9.6)** | **(9.6)** | – | (10.5) | (10.5) |
| US pension plans | **–** | **(20.1)** | **(20.1)** | – | (21.4) | (21.4) |
| US post-retirement medical benefits plan | **8.3** | **(42.2)** | **(33.9)** | 6.7 | (48.6) | (41.9) |
| Other plans | **1.9** | **(35.5)** | **(33.6)** | 1.6 | (31.2) | (29.6) |
| Total post-employment plans | **116.6** | **(107.4)** | **9.2** | 109.1 | (111.7) | (2.6) |
| Other long term employee benefits | | **(4.4)** | | | (3.4) | |
| **Total long term employee benefit obligations** | | **(111.8)** | | | (115.1) | |

Amounts recognised in the income statement for long term employment benefits were:

| | **2017 £ million** | 2016 £ million |
|---|---|---|
| **Operating profit** | | |
| Current service cost | **(41.6)** | (50.9) |
| Past service costs | **14.3** | 1.2 |
| Curtailment gains | **–** | 1.2 |
| Defined benefit post-employment costs charged to operating profit | **(27.3)** | (48.5) |
| Defined contribution plans' expense | **(17.6)** | (14.9) |
| Other long term employee benefits | **(1.0)** | (0.5) |
| Charge to operating profit | **(45.9)** | (63.9) |
| **Finance costs** | | |
| Interest on plan liabilities | **(71.1)** | (69.5) |
| Interest income on plan assets | **70.8** | 62.7 |
| Interest income on reimbursement rights | **0.3** | 0.2 |
| Charge to finance costs | **–** | (6.6) |
| **Charge to consolidated income statement** | **(45.9)** | (70.5) |

# Notes on the Accounts

for the year ended 31st March 2017

## 15 Post-employment benefits (continued)

### 15b Parent company

The parent company is the sponsoring employer of the group's UK defined benefit pension plan and the UK post-retirement medical benefits plan. There is no contractual agreement or stated policy for charging the net defined benefit cost for the plans to the individual group entities. The parent company recognises the net defined benefit cost for these plans and information is disclosed in note 15a.

## 16 Property, plant and equipment

### 16a Group

| | Freehold land and buildings £ million | Long and short leasehold £ million | Plant and machinery £ million | Assets in the course of construction £ million | Total £ million |
|---|---|---|---|---|---|
| **Cost** | | | | | |
| At 1st April 2015 | 492.2 | 17.4 | 1,529.6 | 110.5 | 2,149.7 |
| Additions | 3.6 | 3.0 | 58.8 | 125.1 | 190.5 |
| Acquisitions | – | 0.1 | 2.7 | – | 2.8 |
| Reclassifications | 14.0 | 1.7 | 68.2 | (83.9) | – |
| Disposals | (0.8) | – | (25.0) | (0.1) | (25.9) |
| Sale of business | – | – | – | (0.2) | (0.2) |
| Exchange adjustments | 14.7 | 0.6 | 25.9 | 2.8 | 44.0 |
| At 31st March 2016 | 523.7 | 22.8 | 1,660.2 | 154.2 | 2,360.9 |
| Additions | 3.2 | 0.3 | 38.3 | 156.0 | 197.8 |
| Acquisitions (note 36) | 0.1 | – | 0.8 | – | 0.9 |
| Reclassifications | 15.3 | 1.7 | 70.1 | (87.1) | – |
| Disposals | (0.6) | (0.2) | (22.8) | (0.4) | (24.0) |
| Exchange adjustments | 46.4 | 2.6 | 136.1 | 13.9 | 199.0 |
| At 31st March 2017 | 588.1 | 27.2 | 1,882.7 | 236.6 | 2,734.6 |
| **Accumulated depreciation and impairment** | | | | | |
| At 1st April 2015 | 167.7 | 7.6 | 892.3 | 1.3 | 1,068.9 |
| Charge for the year | 16.7 | 1.4 | 109.8 | – | 127.9 |
| Impairment losses | 16.6 | 2.3 | 56.2 | 3.6 | 78.7 |
| Disposals | (0.8) | – | (24.1) | – | (24.9) |
| Sale of business | – | 0.1 | 0.7 | – | 0.8 |
| Exchange adjustments | 6.3 | 0.4 | 16.4 | 0.1 | 23.2 |
| At 31st March 2016 | 206.5 | 11.8 | 1,051.3 | 5.0 | 1,274.6 |
| Charge for the year | 18.4 | 2.3 | 118.2 | – | 138.9 |
| Impairment losses | – | 0.2 | 0.1 | – | 0.3 |
| Reversal of impairment losses | – | – | (1.5) | – | (1.5) |
| Disposals | (0.5) | (0.2) | (21.4) | – | (22.1) |
| Exchange adjustments | 19.8 | 1.4 | 87.5 | 0.6 | 109.3 |
| At 31st March 2017 | 244.2 | 15.5 | 1,234.2 | 5.6 | 1,499.5 |
| **Carrying amount at 31st March 2017** | **343.9** | **11.7** | **648.5** | **231.0** | **1,235.1** |
| Carrying amount at 31st March 2016 | 317.2 | 11.0 | 608.9 | 149.2 | 1,086.3 |
| Carrying amount at 1st April 2015 | 324.5 | 9.8 | 637.3 | 109.2 | 1,080.8 |

The carrying amount of plant and machinery includes £0.2 million (2016: £0.5 million) in respect of assets held under finance leases.

Compensation received for impaired or lost property, plant and equipment was £0.3 million (2016: £0.2 million).

Finance costs capitalised were £4.7 million (2016: £2.2 million) and the capitalisation rate used to determine the amount of finance costs eligible for capitalisation was 3.5% (2016: 4.0%).

The impairment losses and reversal of impairment losses are adjustments made to last year's major impairment and restructuring charges (2016: all the impairment losses were included in major impairment and restructuring charges, except for £0.1 million of plant and equipment and £0.3 million of assets in the course of construction that were impaired as a result of the sale of Fine Chemicals' Research Chemicals business and so were included in profit on sale or liquidation of businesses).

# Notes on the Accounts

for the year ended 31st March 2017

## 16 Property, plant and equipment (continued)

### 16b Parent company

| | Freehold land and buildings £ million | Long and short leasehold £ million | Plant and machinery £ million | Assets in the course of construction £ million | Total £ million |
|---|---|---|---|---|---|
| **Cost** | | | | | |
| At 1st April 2015 | 121.3 | 1.4 | 473.2 | 16.6 | 612.5 |
| Additions | 1.2 | – | 36.7 | 13.2 | 51.1 |
| Acquisitions | – | – | 0.4 | – | 0.4 |
| Reclassifications | 1.5 | 0.2 | 10.7 | (12.4) | – |
| Disposals | – | – | (6.5) | – | (6.5) |
| At 31st March 2016 | 124.0 | 1.6 | 514.5 | 17.4 | 657.5 |
| Additions | 2.5 | – | 13.1 | 20.7 | 36.3 |
| Reclassifications | (0.2) | 0.5 | 7.1 | (7.4) | – |
| Disposals | (0.3) | – | (6.5) | (0.2) | (7.0) |
| At 31st March 2017 | 126.0 | 2.1 | 528.2 | 30.5 | 686.8 |
| **Accumulated depreciation and impairment** | | | | | |
| At 1st April 2015 | 46.3 | 0.5 | 276.1 | – | 322.9 |
| Charge for the year | 3.5 | 0.2 | 31.6 | – | 35.3 |
| Impairment losses | – | – | 20.5 | 0.6 | 21.1 |
| Disposals | – | – | (5.9) | – | (5.9) |
| At 31st March 2016 | 49.8 | 0.7 | 322.3 | 0.6 | 373.4 |
| Charge for the year | 4.2 | 0.1 | 32.4 | – | 36.7 |
| Disposals | (0.3) | – | (5.4) | – | (5.7) |
| At 31st March 2017 | 53.7 | 0.8 | 349.3 | 0.6 | 404.4 |
| **Carrying amount at 31st March 2017** | **72.3** | **1.3** | **178.9** | **29.9** | **282.4** |
| Carrying amount at 31st March 2016 | 74.2 | 0.9 | 192.2 | 16.8 | 284.1 |
| Carrying amount at 1st April 2015 | 75.0 | 0.9 | 197.1 | 16.6 | 289.6 |

The carrying amount of plant and machinery includes £0.1 million (2016: £0.4 million) in respect of assets held under finance leases.

Finance costs capitalised were £2.2 million (2016: £1.8 million) and the capitalisation rate used to determine the amount of finance costs eligible for capitalisation was 3.5% (2016: 4.0%).

## 17 Goodwill

| | Group £ million | Parent company £ million |
|---|---|---|
| **Cost** | | |
| At 1st April 2015 | 547.2 | 121.1 |
| Acquisitions | 8.4 | 2.3 |
| Exchange adjustments | 14.4 | – |
| At 31st March 2016 | 570.0 | 123.4 |
| Acquisitions (note 36) | 7.4 | – |
| Exchange adjustments | 29.7 | – |
| At 31st March 2017 | 607.1 | 123.4 |
| **Impairment** | | |
| At 1st April 2015, 31st March 2016 and 31st March 2017 | – | – |
| **Carrying amount at 31st March 2017** | **607.1** | **123.4** |
| Carrying amount at 31st March 2016 | 570.0 | 123.4 |
| Carrying amount at 1st April 2015 | 547.2 | 121.1 |

# Notes on the Accounts

for the year ended 31st March 2017

## 17 Goodwill (continued)

Goodwill arising on the acquisition of businesses is allocated, at acquisition, to the cash-generating units (CGUs) that are expected to benefit from that business combination. Goodwill is allocated as follows:

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| Emission Control Technologies – Non-light Duty Catalysts | **84.7** | 77.5 | **–** | – |
| Process Technologies | **324.5** | 309.3 | **112.6** | 112.6 |
| Precious Metal Products | **9.1** | 8.2 | **–** | – |
| Fine Chemicals | | | | |
| Macfarlan Smith | **117.1** | 117.1 | **–** | – |
| Pharmaceutical Materials and Services | **28.6** | 25.1 | **1.7** | 1.7 |
| Other | **1.4** | 1.3 | **0.6** | 0.6 |
| New Businesses | | | | |
| Battery Technologies | **21.8** | 21.5 | **8.2** | 8.2 |
| Other | **19.9** | 10.0 | **0.3** | 0.3 |
| | **607.1** | 570.0 | **123.4** | 123.4 |

The group and parent company test goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired. The recoverable amounts of the CGUs are determined using value in use calculations which use cash flow projections based on financial budgets and plans approved by management, covering a three year period. The budgets and plans are based on a number of key assumptions. Assumptions on the likelihood and timing of new product launches are based on management's best estimate of what may happen. Foreign exchange rates are based on actual forward rates at the time the budgets were prepared and are held constant over the budget and plan years. Other assumptions such as market share, expected changes to selling prices, product profitability, precious metal prices and other direct input costs are based on past experience and management's expectations of future changes in the markets using external sources of information where appropriate. These cash flows are then extrapolated using the long term average growth rates for the relevant products, industries and countries in which the CGUs operate. The cash flows are discounted at the group's estimated pre-tax weighted average cost of capital adjusted for the estimated tax cash flows and risk applicable to each CGU.

The key assumptions were:

| | Discount rate | | Long term growth rate | |
|---|---|---|---|---|
| | **2017** | 2016 | **2017** | 2016 |
| Emission Control Technologies – Non-light Duty Catalysts | **9.5%** | 9.2% | **1.6%** | 3.0% |
| Process Technologies | **9.9%** | 9.3% | **2.9%** | 2.9% |
| Fine Chemicals | | | | |
| Macfarlan Smith | **7.4%** | 7.5% | **3.2%** | 3.2% |
| Pharmaceutical Materials and Services | **9.2%** | 9.1% | **3.2%** | 3.2% |
| New Businesses – Battery Technologies | **12.6%** | 11.6% | **5.0%** | 5.0% |

For the Emission Control Technologies – Non-light Duty Catalysts CGU the growth rate for years four to ten is expected to be 3.0% (2016: 3.0%). After that growth is expected to slow and so the long term growth rate above is used for year eleven onwards.

For the Battery Technologies CGU the long term growth rate above is used for year eleven onwards. Over the next decade management expects the business to grow rapidly as its portfolio of battery materials is developed and so the cash flow projections for years four to ten have been extrapolated using a 15.0% (2016: 15.0%) growth rate.

All the impairment tests result in headroom of more than 40% over the carrying value of the relevant CGU's net assets and so it is unlikely that a reasonably possible change in a key assumption would result in an impairment of goodwill.

# Notes on the Accounts

for the year ended 31st March 2017

## 18 Other intangible assets

### 18a Group

| | Customer contracts and relationships £ million | Computer software £ million | Patents, trademarks and licences £ million | Acquired research and technology £ million | Development expenditure £ million | Total £ million |
|---|---|---|---|---|---|---|
| **Cost** | | | | | | |
| At 1st April 2015 | 133.2 | 68.9 | 39.8 | 57.9 | 123.7 | 423.5 |
| Additions | – | 53.2 | 0.1 | – | 13.2 | 66.5 |
| Acquisitions | 7.9 | (0.3) | – | 0.8 | – | 8.4 |
| Disposals | – | (6.5) | – | (0.5) | – | (7.0) |
| Exchange adjustments | 8.8 | 0.6 | 1.1 | 2.5 | 4.6 | 17.6 |
| At 31st March 2016 | 149.9 | 115.9 | 41.0 | 60.7 | 141.5 | 509.0 |
| Additions | – | 34.6 | 13.4 | – | 18.9 | 66.9 |
| Acquisitions (note 36) | 1.3 | 0.3 | 13.4 | 0.5 | – | 15.5 |
| Disposals | – | (1.2) | – | – | – | (1.2) |
| Exchange adjustments | 12.5 | 4.3 | 3.2 | 3.5 | 15.5 | 39.0 |
| At 31st March 2017 | 163.7 | 153.9 | 71.0 | 64.7 | 175.9 | 629.2 |
| **Accumulated amortisation and impairment** | | | | | | |
| At 1st April 2015 | 72.8 | 46.4 | 20.3 | 17.9 | 78.6 | 236.0 |
| Charge for the year | 9.0 | 4.0 | 3.2 | 6.8 | 6.7 | 29.7 |
| Impairment losses | 2.1 | 0.9 | – | 0.5 | 11.9 | 15.4 |
| Disposals | – | (6.4) | – | (0.5) | – | (6.9) |
| Exchange adjustments | 4.6 | 0.3 | 0.9 | 1.1 | 2.9 | 9.8 |
| At 31st March 2016 | 88.5 | 45.2 | 24.4 | 25.8 | 100.1 | 284.0 |
| Charge for the year | 9.2 | 4.7 | 3.7 | 7.6 | 7.7 | 32.9 |
| Disposals | – | (1.1) | – | – | – | (1.1) |
| Exchange adjustments | 8.2 | 3.3 | 2.0 | 1.7 | 9.9 | 25.1 |
| At 31st March 2017 | 105.9 | 52.1 | 30.1 | 35.1 | 117.7 | 340.9 |
| **Carrying amount at 31st March 2017** | **57.8** | **101.8** | **40.9** | **29.6** | **58.2** | **288.3** |
| Carrying amount at 31st March 2016 | 61.4 | 70.7 | 16.6 | 34.9 | 41.4 | 225.0 |
| Carrying amount at 1st April 2015 | 60.4 | 22.5 | 19.5 | 40.0 | 45.1 | 187.5 |

# Notes on the Accounts

for the year ended 31st March 2017

## 18 Other intangible assets (continued)

### 18b Parent company

| | Customer contracts and relationships £ million | Computer software £ million | Patents, trademarks and licences £ million | Acquired research and technology £ million | Development expenditure £ million | Total £ million |
|---|---|---|---|---|---|---|
| **Cost** | | | | | | |
| At 1st April 2015 | – | 32.7 | 6.9 | 11.4 | 10.1 | 61.1 |
| Additions | – | 47.6 | 0.1 | – | 1.1 | 48.8 |
| Acquisitions | 0.4 | – | – | – | – | 0.4 |
| Disposals | – | (0.9) | – | – | – | (0.9) |
| At 31st March 2016 | 0.4 | 79.4 | 7.0 | 11.4 | 11.2 | 109.4 |
| Additions | – | 33.2 | 26.8 | – | 1.2 | 61.2 |
| Disposals | – | (0.2) | – | – | – | (0.2) |
| At 31st March 2017 | 0.4 | 112.4 | 33.8 | 11.4 | 12.4 | 170.4 |
| **Accumulated amortisation and impairment** | | | | | | |
| At 1st April 2015 | – | 17.7 | 0.4 | 0.4 | 7.6 | 26.1 |
| Charge for the year | – | 1.5 | 0.6 | 1.0 | 0.5 | 3.6 |
| Impairment losses | – | 0.5 | – | – | – | 0.5 |
| Disposals | – | (0.9) | – | – | – | (0.9) |
| At 31st March 2016 | – | 18.8 | 1.0 | 1.4 | 8.1 | 29.3 |
| Charge for the year | 0.1 | 1.5 | 1.2 | 1.0 | 0.4 | 4.2 |
| Disposals | – | (0.2) | – | – | – | (0.2) |
| At 31st March 2017 | 0.1 | 20.1 | 2.2 | 2.4 | 8.5 | 33.3 |
| **Carrying amount at 31st March 2017** | **0.3** | **92.3** | **31.6** | **9.0** | **3.9** | **137.1** |
| Carrying amount at 31st March 2016 | 0.4 | 60.6 | 6.0 | 10.0 | 3.1 | 80.1 |
| Carrying amount at 1st April 2015 | – | 15.0 | 6.5 | 11.0 | 2.5 | 35.0 |

## 19 Investments in subsidiaries

| | Cost of investments in subsidiaries £ million | Accumulated impairment £ million | Carrying amount £ million |
|---|---|---|---|
| At 1st April 2015 | 2,067.4 | (186.2) | 1,881.2 |
| Additions | 225.7 | – | 225.7 |
| Impairment loss | – | (6.2) | (6.2) |
| Disposals | (50.7) | – | (50.7) |
| At 31st March 2016 | 2,242.4 | (192.4) | 2,050.0 |
| Additions | 12.4 | – | 12.4 |
| **At 31st March 2017** | **2,254.8** | **(192.4)** | **2,062.4** |

The subsidiaries are shown in note 41.

# Notes on the Accounts

for the year ended 31st March 2017

## 20 Investments in joint venture and associate

| | **2017 £ million** | 2016 £ million |
|---|---|---|
| Investment in joint venture | **5.6** | 4.2 |
| Investment in associate | **16.0** | 15.9 |
| At end of year | **21.6** | 20.1 |

The movements in the year were:

| | Joint venture £ million | Associate £ million | Total £ million |
|---|---|---|---|
| At 1st April 2015 | 3.9 | – | 3.9 |
| Group's share of profit / (loss) for the year | 0.6 | (0.6) | – |
| Group's share of other comprehensive income – currency translation differences | – | 0.3 | 0.3 |
| Group's share of total comprehensive income | 0.6 | (0.3) | 0.3 |
| Dividends | (0.3) | – | (0.3) |
| Additions | – | 16.2 | 16.2 |
| At 31st March 2016 | 4.2 | 15.9 | 20.1 |
| Group's share of profit / (loss) for the year | 1.0 | (0.8) | 0.2 |
| Group's share of other comprehensive income – currency translation differences | 0.4 | 0.9 | 1.3 |
| Group's share of total comprehensive income | 1.4 | 0.1 | 1.5 |
| **At 31st March 2017** | **5.6** | **16.0** | **21.6** |

The group has an 11.1% interest in the ordinary share capital of Shanghai Bi Ke Clean Energy Technology Co Ltd (CECC). In addition, Johnson Matthey Plc has a revenue share agreement with CECC. This agreement and the requirement for unanimous board decisions ensure that the group has a significant influence in CECC and so it is accounted for as an investment in associate. In the parent company, the revenue share agreement is accounted for as a non-current available-for-sale investment (note 21).

## 21 Non-current available-for-sale investments

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| Quoted bonds purchased to fund pension deficit | **54.1** | 49.9 | **–** | – |
| Other quoted investments | **0.3** | 0.8 | **–** | – |
| Unquoted investments | **3.6** | 5.9 | **7.1** | 7.1 |
| | **58.0** | 56.6 | **7.1** | 7.1 |

The quoted bonds and other quoted investments are measured at fair value using level 1 inputs (note 27). There is no active market for the unquoted investments since they are investments in a company that is in the start up phase and in investment vehicles that invest in start up companies and are categorised as level 3 (note 27). The parent company's investment is the revenue share agreement with CECC (note 20). Movements in the unquoted investments in the year are shown below but, given their size, it would be overly onerous to provide additional detail.

| | Group £ million | Parent company £ million |
|---|---|---|
| At 1st April 2015 | 8.4 | – |
| Purchases | – | 4.1 |
| Fair value (loss) / gain recognised in other comprehensive income | (2.5) | 3.0 |
| At 31st March 2016 | 5.9 | 7.1 |
| Impairment loss | (2.3) | – |
| **At 31st March 2017** | **3.6** | **7.1** |

# Notes on the Accounts

for the year ended 31st March 2017

## 22 Inventories

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| Raw materials and consumables | **235.2** | 195.1 | **28.2** | 27.2 |
| Work in progress | **257.2** | 203.7 | **27.1** | 33.5 |
| Finished goods and goods for resale | **279.9** | 254.9 | **68.5** | 62.7 |
| | **772.3** | 653.7 | **123.8** | 123.4 |

The group also holds customers' materials in the process of refining and fabrication and for other reasons.

## 23 Trade and other receivables

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| **Current** | | | | |
| Trade receivables | **951.0** | 774.1 | **164.2** | 147.2 |
| Amounts receivable from long term contract customers | **13.9** | 17.3 | **1.1** | – |
| Amounts receivable from subsidiaries | **–** | – | **907.6** | 706.0 |
| Prepayments and accrued income | **73.3** | 69.3 | **16.2** | 25.3 |
| Value added tax and other sales tax receivable | **44.5** | 44.2 | **13.8** | 10.5 |
| Other receivables | **56.7** | 43.1 | **36.5** | 79.6 |
| **Current trade and other receivables** | **1,139.4** | 948.0 | **1,139.4** | 968.6 |
| **Non-current** | | | | |
| Amounts receivable from subsidiaries | **–** | – | **1,080.5** | 1,040.2 |
| Prepayments and accrued income | **27.5** | 15.4 | **39.9** | 40.9 |
| Other receivables | **0.2** | 0.2 | **–** | – |
| **Non-current trade and other receivables** | **27.7** | 15.6 | **1,120.4** | 1,081.1 |

## 24 Trade and other payables

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| **Current** | | | | |
| Trade payables | **529.1** | 454.2 | **159.6** | 144.1 |
| Amounts payable to long term contract customers | **31.0** | 40.7 | **–** | – |
| Amounts payable to subsidiaries | **–** | – | **2,295.0** | 2,095.0 |
| Accruals and deferred income | **314.6** | 254.9 | **96.2** | 88.5 |
| Other payables | **93.6** | 62.5 | **28.6** | 23.6 |
| **Current trade and other payables** | **968.3** | 812.3 | **2,579.4** | 2,351.2 |
| **Non-current** | | | | |
| Amounts payable to subsidiaries | **–** | – | **505.4** | 478.1 |
| Accruals and deferred income | **0.2** | 0.2 | **–** | – |
| Other payables | **5.7** | 5.7 | **3.3** | 3.0 |
| **Non-current trade and other payables** | **5.9** | 5.9 | **508.7** | 481.1 |

# Notes on the Accounts

for the year ended 31st March 2017

## 25 Long term contracts

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Contract revenue recognised | **60.6** | 79.4 | **1.1** | – |
| Contracts in progress at the year end: | | | | |
| Costs incurred plus recognised profits less recognised losses to date | **265.0** | 337.7 | **0.8** | – |
| Amount of advances received | **27.6** | 42.8 | **0.5** | – |

## 26 Net debt

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| **Non-current borrowings, finance leases and related swaps** | | | | |
| Bank, other loans and related swaps | | | | |
| 3.39% US Dollar Bonds 2028 | **148.2** | 125.1 | **148.2** | 125.1 |
| 3.14% US Dollar Bonds 2025 | **104.3** | 90.6 | **104.3** | 90.6 |
| 3.565% KfW IPEX-Bank GmbH (KfW) US dollar loan 2024 | **40.1** | – | **40.1** | – |
| 3.57% Sterling Bonds 2024 | **65.0** | 65.0 | **65.0** | 65.0 |
| 2.44% Euro Bonds 2023 | **17.2** | 15.8 | **17.2** | 15.8 |
| 2.99% US Dollar Bonds 2023 | **132.4** | 115.0 | **132.4** | 115.0 |
| 3.26% US Dollar Bonds 2022 | **122.9** | 110.9 | **122.9** | 110.9 |
| Euro European Investment Bank (EIB) loan 2022 | **142.1** | 130.8 | **142.1** | 130.8 |
| 4.66% Euro Bonds 2021 | **85.8** | 79.0 | **85.8** | 79.0 |
| KfW US dollar loan 2020 | **40.1** | – | **40.1** | – |
| 1.945% EIB loan 2019 | **106.4** | 97.9 | **106.4** | 97.9 |
| Cross currency interest rate swaps designated as net investment hedges | **6.8** | 1.4 | **6.8** | 1.4 |
| Other repayable from two to three years | **–** | 1.8 | **–** | 1.8 |
| Other repayable from one to two years | **0.1** | 2.4 | **–** | 1.8 |
| Finance leases repayable | | | | |
| From one to two years | **0.1** | 0.2 | **–** | 0.2 |
| Non-current borrowings, finance leases and related swaps | **1,011.5** | 835.9 | **1,011.3** | 835.3 |
| **Current borrowings, finance leases and related swaps** | | | | |
| 5.67% US Dollar Bonds 2016 | **–** | 108.3 | **–** | 108.3 |
| Other bank and other loans | **20.0** | 29.6 | **1.8** | 2.1 |
| Other interest rate swaps held for trading | **–** | 0.2 | **–** | 0.2 |
| Finance leases | **0.2** | 0.4 | **0.2** | 0.4 |
| Current borrowings, finance leases and related swaps excluding bank overdrafts | **20.2** | 138.5 | **2.0** | 111.0 |
| Bank overdrafts | **31.8** | 20.7 | **15.5** | 13.4 |
| Current borrowings, finance leases and related swaps | **52.0** | 159.2 | **17.5** | 124.4 |
| **Total borrowings and finance leases** | **1,063.5** | 995.1 | **1,028.8** | 959.7 |
| Less interest rate swaps designated as fair value hedges | **2.5** | 7.5 | **2.5** | 7.5 |
| Less interest rate swaps designated as fair value hedges – short term | **–** | 2.3 | **–** | 2.3 |
| Less cross currency interest rate swaps designated as cash flow hedges | **14.9** | 3.6 | **14.9** | 3.6 |
| Less other interest rate swaps classified as held for trading – short term | **–** | 2.3 | **–** | 2.3 |
| Less cash and deposits | **330.4** | 304.5 | **247.7** | 226.9 |
| **Net debt** | **715.7** | 674.9 | **763.7** | 717.1 |

The 3.26% US Dollar Bonds 2022 have been swapped into floating rate US dollars. US $100.0 million of the 3.14% US Dollar Bonds 2025 have been swapped into sterling at 2.83%. The interest rate implicit in the finance leases is 5.9% and the lease term ends in 2017. Apart from the bonds, the 2024 KfW loan, the 2019 EIB loan and finance leases shown separately above, plus two loans with a book value of £2.0 million and an average interest rate of 6.3%, all the loans, overdrafts and bank deposits are denominated in various currencies and bear interest at commercial floating rates.

The cross currency and interest rate swaps are measured at fair value using level 2 inputs (note 27). The bonds which are designated as being fair value hedged are remeasured for the fair value changes in respect of the hedged risk using level 2 inputs. The fair values are estimated by discounting the future contractual cash flows using appropriate market sourced data at the balance sheet date.

# Notes on the Accounts

for the year ended 31st March 2017

## 27 Other financial assets and liabilities

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| **Other financial assets** | | | | |
| Forward foreign exchange contracts and options designated as cash flow hedges | **3.8** | 2.7 | **3.8** | 3.5 |
| Forward precious metal price contracts designated as cash flow hedges | **–** | 3.1 | **–** | 3.1 |
| Forward foreign exchange contracts and currency swaps held for trading | **3.7** | 2.6 | **3.8** | 2.6 |
| Embedded derivatives | **–** | 0.1 | **–** | – |
| **Other financial assets** | **7.5** | 8.5 | **7.6** | 9.2 |
| **Other financial liabilities** | | | | |
| Forward foreign exchange contracts and options designated as cash flow hedges | **(6.3)** | (11.6) | **(7.0)** | (12.4) |
| Forward precious metal price contracts designated as cash flow hedges | **(1.5)** | – | **(1.5)** | – |
| Forward foreign exchange contracts and currency swaps held for trading | **(6.4)** | (5.8) | **(7.2)** | (6.6) |
| Foreign exchange swaps designated as hedges of a net investment in foreign operations | **(0.7)** | (0.5) | **–** | – |
| **Other financial liabilities** | **(14.9)** | (17.9) | **(15.7)** | (19.0) |

Fair values are measured using a hierarchy where the inputs are:

- Level 1 – quoted prices in active markets for identical assets or liabilities.
- Level 2 – not level 1 but are observable for that asset or liability either directly or indirectly.
- Level 3 – not based on observable market data (unobservable).

Of the other financial assets listed above, all are measured at fair value using level 2 inputs. All other financial liabilities are measured at fair value using level 2 inputs.

The fair value of forward foreign exchange contracts, forward precious metal price contracts and currency swaps is estimated by discounting the future contractual cash flows using appropriate market sourced data at the balance sheet date.

## 28 Financial risk management

The group's and parent company's activities expose them to a variety of financial risks including credit risk, market risk and liquidity risk. Market risk includes currency risk, interest rate risk and price risk. The main financial risks managed by the group and parent company, under policies approved by the board, are foreign currency risk, interest rate risk, liquidity risk and credit risk. The group and parent company use derivative financial instruments, in particular forward currency contracts and currency swaps, to manage their financial risks associated with their underlying business activities and the financing of those activities. Some derivative financial instruments used to manage financial risk are not designated as hedges and so are classified as 'held for trading'. The group and parent company do not undertake any speculative trading activity in financial instruments.

### 28a Credit risk

Within certain businesses, the group and parent company derive a significant proportion of their revenue from sales to major customers. Sales to individual customers are frequently high if the value of precious metals is included in the price. The failure of any such company to honour its debts could materially impact the group's and parent company's results. The group and parent company derive significant benefit from trading with their large customers and manage the risk at many levels. Each business and division has a credit committee that regularly monitors its exposure. The Audit Committee receives a report every six months that details all significant credit limits, amounts due and amounts overdue within the group and the relevant actions being taken. At 31st March 2017 trade receivables for the group amounted to £951.0 million (2016: £774.1 million) (parent company £164.2 million (2016: £147.2 million)). £690.7 million (2016: £561.7 million) of these receivables at group level (£101.3 million (2016: £102.9 million) at parent company level) arose in Emission Control Technologies (ECT) which mainly supplies the automotive industry including car and truck manufacturers and component suppliers. Although ECT has a wide spread of the available customers, the concentrated nature of this industry means that amounts owed by individual customers can be large. Other parts of the group tend to sell to a larger number of customers and amounts owed tend to be lower. As at 31st March 2017 (and at 31st March 2016) for the group as a whole, no single outstanding balance exceeded 2% of the group's revenue. No assets have been taken possession of as collateral.

The credit profiles of the group's and parent company's customers are obtained from credit rating agencies and are closely monitored. The scope of these reviews includes amounts overdue and credit limits. Generally, payments in the automotive industry and in the other markets in which the group operates are made promptly.

# Notes on the Accounts

for the year ended 31st March 2017



## 28 Financial risk management (continued)

### 28a Credit risk (continued)

Trade receivables are considered impaired when the amount is in dispute, customers are in financial difficulty or for other reasons which imply there is doubt over the recoverability of the debt. Trade receivables can be analysed as:

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| Amounts neither past due nor impaired | **885.1** | 711.9 | **148.9** | 132.1 |
| Amounts past due but not impaired | | | | |
| less than 30 days | **50.0** | 45.9 | **11.2** | 10.4 |
| 30 – 90 days | **9.1** | 9.6 | **1.7** | 3.5 |
| more than 90 days | **6.6** | 7.4 | **1.9** | 1.2 |
| Total past due but not impaired | **65.7** | 62.9 | **14.8** | 15.1 |
| Amounts impaired | **6.9** | 6.6 | **1.7** | 1.2 |
| Specific allowances for bad and doubtful debts | **(6.3)** | (6.6) | **(1.2)** | (1.2) |
| Carrying amount of impaired receivables | **0.6** | – | **0.5** | – |
| Other allowances for bad and doubtful debts | **(0.4)** | (0.7) | **–** | – |
| Trade receivables net of allowances | **951.0** | 774.1 | **164.2** | 147.2 |

Movements in the allowances for impairments were:

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| At beginning of year | **7.3** | 4.9 | **1.2** | 1.0 |
| Charge for year | **2.5** | 4.9 | **0.2** | 0.4 |
| Acquisitions | **0.1** | – | **–** | – |
| Released | **(2.4)** | (1.2) | **(0.2)** | (0.2) |
| Utilised | **(1.5)** | (1.4) | **–** | – |
| Exchange adjustments | **0.7** | 0.1 | **–** | – |
| **At end of year** | **6.7** | 7.3 | **1.2** | 1.2 |

The group's financial assets included in sundry receivables are all current and not impaired. Of the parent company's amounts receivable from subsidiaries £127.7 million is impaired (2016: £127.7 million).

The credit risk on cash and deposits and derivative financial instruments is limited because the counterparties with significant balances are banks with high credit ratings. The exposure to individual banks is monitored frequently against internally defined limits together with the bank's credit ratings and credit default swap prices. As at 31st March 2017, the maximum exposure with a single bank for deposits was £48.5 million (2016: £45.9 million) for the group and £21.9 million (2016: £12.0 million) for the parent company, whilst the largest mark to market exposure for derivative financial instruments to a single bank was £9.6 million (2016: £7.9 million) for the group and parent company. The group and parent company also use money market funds to invest surplus cash thereby further diversifying credit risk and at 31st March 2017 the group's and parent company's exposure to these funds was £211.0 million (2016: £210.8 million). The amounts on deposit at the year end represent the group's and parent company's maximum exposure to credit risk on cash and deposits.

The parent company also guarantees some of its subsidiaries' borrowings, partly through interest netting arrangements, payables and precious metal leases and its exposure at 31st March 2017 was £28.2 million (2016: £27.5 million).

# Notes on the Accounts

for the year ended 31st March 2017

## 28 Financial risk management (continued)

### 28b Foreign currency risk

The group operates globally with a significant amount of its profit earned outside the UK. In order to protect the group's sterling balance sheet and reduce cash flow risk, the group has financed most of its investment in the USA and Europe by borrowing US dollars and euros respectively. Although much of this funding is obtained by directly borrowing the relevant currency, a part is achieved through currency swaps which can be more efficient and reduce costs. To a lesser extent the group has also financed a portion of its investment in China using a currency swap. The group has designated the currency swaps, a US dollar loan and a euro loan (fair value of the loans was £66.6 million (2016: a US dollar loan and a euro loan with fair value of £58.7 million)) as hedges of net investments in foreign operations as they hedge the changes in values of the subsidiaries' net assets against movements in exchange rates.

The main currencies of the net debt after taking into account the effect of the currency swaps were:

| | Group | | Group | | Parent company | | Parent company | |
|---|---|---|---|---|---|---|---|---|
| | **Borrowings 2017 £ million** | Borrowings 2016 £ million | **Cash 2017 £ million** | Cash 2016 £ million | **Borrowings 2017 £ million** | Borrowings 2016 £ million | **Cash 2017 £ million** | Cash 2016 £ million |
| Sterling | **153.8** | 156.2 | **955.8** | 737.0 | **140.7** | 142.6 | **967.0** | 745.5 |
| US dollar | **910.5** | 764.3 | **111.0** | 79.4 | **913.8** | 766.1 | **97.2** | 72.9 |
| Euro | **740.7** | 609.2 | **5.7** | 5.8 | **740.6** | 609.2 | **0.3** | – |
| Hong Kong dollar | **78.4** | 62.8 | **–** | – | **78.4** | 65.4 | **–** | – |
| Chinese renminbi | **40.4** | 38.0 | **66.3** | 60.4 | **40.3** | 37.7 | **25.8** | 19.2 |
| Swedish krona | **0.9** | – | **66.2** | 63.8 | **0.9** | – | **66.0** | 63.7 |
| Canadian dollar | **–** | 0.1 | **24.1** | 8.6 | **–** | – | **24.0** | 8.5 |
| Indian rupee | **14.2** | 6.2 | **16.0** | 10.9 | **–** | – | **–** | – |
| South African rand | **14.8** | 18.3 | **5.8** | 9.4 | **14.8** | 18.3 | **0.4** | 0.1 |
| Brazilian real | **3.1** | 7.0 | **12.7** | 9.9 | **–** | – | **11.7** | 8.3 |
| Swiss franc | **7.3** | 10.3 | **0.4** | 0.5 | **7.3** | 10.3 | **–** | – |
| Japanese yen | **5.6** | 2.7 | **0.5** | 7.6 | **5.6** | 2.6 | **0.5** | 5.3 |
| Argentinian peso | **5.4** | 10.4 | **0.7** | 0.1 | **–** | – | **–** | – |
| Polish zloty | **4.0** | 5.3 | **–** | – | **4.0** | 5.3 | **–** | – |
| Malaysian ringgit | **0.7** | 0.5 | **1.8** | 19.5 | **0.7** | – | **–** | 18.1 |
| Other currencies | **11.8** | 5.1 | **8.9** | 8.6 | **9.8** | 3.6 | **0.3** | 2.4 |
| | **1,991.6** | 1,696.4 | **1,275.9** | 1,021.5 | **1,956.9** | 1,661.1 | **1,193.2** | 944.0 |

The group and parent company use forward exchange contracts, and occasionally purchased currency options, to hedge foreign exchange exposures arising on forecast receipts and payments in foreign currencies. These are designated and accounted for as cash flow hedges. The majority of the cash flows are expected to occur and the hedge effect realised in the income statement in the year ending 31st March 2018.

The main impact of movements in exchange rates on the group's results arises on translation of overseas subsidiaries' profits into sterling. The group's largest exposure is to the US dollar and a 5% (6.5 cent (2016: 7.6 cent)) movement in the average exchange rate for the US dollar against sterling would have had a £10.4 million (2016: £9.8 million) impact on operating profit. The group is also exposed to the euro and a 5% (6.0 cent (2016: 6.8 cent)) movement in the average exchange rate for the euro against sterling would have had a £9.5 million (2016: £6.8 million) impact on operating profit. This exposure is part of the group's economic risk of operating globally which is essential to remain competitive in the markets in which the group operates.

For financial instruments the main exposures are to the US dollar and euro and are due to loans, swaps and cash flow hedges on forecast receipts and payments. A 5% (6.2 cent (2016: 7.2 cent)) movement in the closing exchange rate for the US dollar against sterling would have had a £2.1 million (2016: £4.5 million) impact on operating profit and a £42.3 million (2016: £36.6 million) impact on equity for these instruments. A 5% (5.8 cent (2016: 6.3 cent)) movement in the closing exchange rate for the euro against sterling would have had a £6.8 million (2016: £6.0 million) impact on operating profit and a £43.0 million (2016: £36.9 million) impact on equity for these instruments. However, the impact on operating profit relates primarily to the cash flow hedging instruments hedging the forecast receipts and payments whose cash flows have occurred in the year and so would be offset by similar movements in the hedged items. Similarly, the impact on equity relates primarily to foreign exchange positions used to hedge the subsidiaries' net assets and so would be offset by an equal and opposite movement in the value of the relevant subsidiaries' net assets. The remaining impact on equity of £2.4 million (2016: £2.1 million) for the US dollar and £6.3 million (2016: £6.8 million) for the euro relates to cash flow hedging instruments hedging the forecast receipts and payments whose cash flows have yet to occur.

# Notes on the Accounts

for the year ended 31st March 2017

## 28 Financial risk management (continued)

### 28c Interest rate risk

The group's and parent company's interest rate risk arises from their fixed rate borrowings (fair value risk) and floating rate borrowings (cash flow risk). Their policy is to optimise interest cost and reduce volatility in reported earnings and equity. They manage their risk by reviewing the profile of their debt regularly and by selectively using interest rate and cross currency swaps to maintain borrowings in appropriate currencies and at competitive rates. The group and parent company have designated one (2016: three) US dollar fixed rate to US dollar floating rate swap as a fair value hedge as it hedges the changes in fair value of bonds attributable to changes in interest rates. The losses on the interest rate swaps in the year ended 31st March 2017 were £7.5 million (2016: £0.2 million) and the gains on the bonds attributable to the hedged risk were £6.4 million (2016: £0.6 million). The group and parent company have designated the US dollar fixed interest rate to sterling fixed interest rate cross currency swap as a cash flow hedge as it hedges the movement in the cash flows of the hedged bond attributable to changes in the US dollar / sterling exchange rate. Its cash flows are expected to occur in 2025 when the bond which it hedges matures and so the exchange effect on it is expected to be realised in the income statement in 2025. The interest element is realised in the income statement each year. At 31st March 2017, 99% (2016: 96%) of the group's net debt and 92% (2016: 90%) of the parent company's net debt were at fixed rates with an average interest rate of 3.07% (2016: 2.99%). The remaining debt is funded on a floating rate basis. Based on the group's net debt funded at floating rates, after taking into account the effect of the swaps, a 1% change in all interest rates would have a £0.1 million (2016: £0.2 million) impact on the group's profit before tax. This is within the range the board regards as acceptable.

### 28d Fair value of financial instruments

The fair value of financial instruments is approximately equal to book value except for:

| Group | 2017 Carrying amount £ million | 2017 Fair value £ million | 2016 Carrying amount £ million | 2016 Fair value £ million |
|---|---|---|---|---|
| US Dollar Bonds 2016, 2022, 2023, 2025 and 2028 | **(507.8)** | **(503.2)** | (549.9) | (550.8) |
| Euro Bonds 2021 and 2023 | **(103.0)** | **(119.6)** | (94.8) | (111.8) |
| Euro EIB loan 2019 | **(106.4)** | **(111.8)** | (97.9) | (103.1) |
| Sterling Bonds 2024 | **(65.0)** | **(73.8)** | (65.0) | (69.4) |
| KfW US dollar loan 2024 | **(40.1)** | **(41.7)** | – | – |
| Other | **(2.0)** | **(2.0)** | (6.4) | (6.1) |

| Parent company | 2017 Carrying amount £ million | 2017 Fair value £ million | 2016 Carrying amount £ million | 2016 Fair value £ million |
|---|---|---|---|---|
| Amounts receivable from subsidiaries | **1,988.1** | **2,076.8** | 1,746.2 | 1,835.2 |
| US Dollar Bonds 2016, 2022, 2023, 2025 and 2028 | **(507.8)** | **(503.2)** | (549.9) | (550.8) |
| Euro Bonds 2021 and 2023 | **(103.0)** | **(119.6)** | (94.8) | (111.8) |
| Euro EIB loan 2019 | **(106.4)** | **(111.8)** | (97.9) | (103.1) |
| Sterling Bonds 2024 | **(65.0)** | **(73.8)** | (65.0) | (69.4) |
| KfW US dollar loan 2024 | **(40.1)** | **(41.7)** | – | – |
| Other | **(2.0)** | **(2.0)** | (5.7) | (5.7) |

The fair values are calculated using level 2 inputs (note 27) by discounting future cash flows to net present values using appropriate market interest rates prevailing at the year end.

There were no transfers of any financial instrument between the levels of the fair value hierarchy (note 27) during the year.

### 28e Liquidity risk

The group's and parent company's policy on funding capacity is to ensure that they always have sufficient long term funding and committed bank facilities in place to meet foreseeable peak borrowing requirements. At 31st March 2017 the group and parent company had borrowings under committed bank facilities of £ nil (2016: £ nil). The group and parent company also have a number of uncommitted facilities, including metal leases, and overdraft lines at their disposal.

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| **Undrawn committed bank facilities** | | | | |
| Expiring in more than one year but not more than two years | **398.6** | 372.1 | **398.6** | 372.1 |
| Expiring in more than two years | **100.0** | 100.0 | **100.0** | 100.0 |
| | **498.6** | 472.1 | **498.6** | 472.1 |

## 5. Accounts

# Notes on the Accounts

for the year ended 31st March 2017

## 28 Financial risk management (continued)

### 28e Liquidity risk (continued)

The maturity analyses for financial liabilities showing the remaining contractual undiscounted cash flows, including future interest payments but excluding unamortised transaction costs, were:

| **Group as at 31st March 2017** | **Within 1 year £ million** | **1 to 2 years £ million** | **2 to 5 years £ million** | **After 5 years £ million** | **Total £ million** |
|---|---|---|---|---|---|
| Bank overdrafts | **31.8** | **–** | **–** | **–** | **31.8** |
| Bank and other loans – principal | **20.0** | **1.5** | **232.4** | **760.1** | **1,014.0** |
| Bank and other loans – interest payments | **25.6** | **62.7** | **61.6** | **61.6** | **211.5** |
| Finance lease obligations | **0.2** | **0.1** | **–** | **–** | **0.3** |
| Financial liabilities in trade and other payables | **890.4** | **0.1** | **2.0** | **0.9** | **893.4** |
| Total non-derivative financial liabilities | **968.0** | **64.4** | **296.0** | **822.6** | **2,151.0** |
| Foreign exchange forwards, options and swaps – payments | **990.4** | **0.3** | **–** | **–** | **990.7** |
| Foreign exchange forwards, options and swaps – receipts | **(976.6)** | **(0.3)** | **–** | **–** | **(976.9)** |
| Total derivative financial liabilities | **13.8** | **–** | **–** | **–** | **13.8** |

| **Group as at 31st March 2016** | Within 1 year £ million | 1 to 2 years £ million | 2 to 5 years £ million | After 5 years £ million | Total £ million |
|---|---|---|---|---|---|
| Bank overdrafts | 20.7 | – | – | – | 20.7 |
| Bank and other loans – principal | 134.4 | 1.9 | 178.8 | 644.3 | 959.4 |
| Bank and other loans – interest payments | 29.8 | 22.0 | 62.7 | 61.6 | 176.1 |
| Finance lease obligations | 0.4 | 0.2 | – | – | 0.6 |
| Financial liabilities in trade and other payables | 736.4 | 0.4 | 1.2 | 1.2 | 739.2 |
| Total non-derivative financial liabilities | 921.7 | 24.5 | 242.7 | 707.1 | 1,896.0 |
| Foreign exchange forwards, options and swaps – payments | 793.3 | – | – | – | 793.3 |
| Foreign exchange forwards, options and swaps – receipts | (773.0) | – | – | – | (773.0) |
| Total derivative financial liabilities | 20.3 | – | – | – | 20.3 |

| **Parent company as at 31st March 2017** | **Within 1 year £ million** | **1 to 2 years £ million** | **2 to 5 years £ million** | **After 5 years £ million** | **Total £ million** |
|---|---|---|---|---|---|
| Bank overdrafts | **15.5** | **–** | **–** | **–** | **15.5** |
| Bank and other loans – principal | **1.8** | **1.5** | **232.4** | **760.1** | **995.8** |
| Bank and other loans – interest payments | **22.0** | **62.7** | **61.6** | **61.6** | **207.9** |
| Finance lease obligations | **0.2** | **–** | **–** | **–** | **0.2** |
| Financial liabilities in trade and other payables | **2,574.1** | **0.1** | **1.6** | **506.1** | **3,081.9** |
| Total non-derivative financial liabilities | **2,613.6** | **64.3** | **295.6** | **1,327.8** | **4,301.3** |
| Foreign exchange forwards, options and swaps – payments | **1,050.0** | **1.9** | **–** | **–** | **1,051.9** |
| Foreign exchange forwards, options and swaps – receipts | **(1,038.3)** | **(1.9)** | **–** | **–** | **(1,040.2)** |
| Total derivative financial liabilities | **11.7** | **–** | **–** | **–** | **11.7** |

| **Parent company as at 31st March 2016** | Within 1 year £ million | 1 to 2 years £ million | 2 to 5 years £ million | After 5 years £ million | Total £ million |
|---|---|---|---|---|---|
| Bank overdrafts | 13.4 | – | – | – | 13.4 |
| Bank and other loans – principal | 106.7 | 1.8 | 178.8 | 644.3 | 931.6 |
| Bank and other loans – interest payments | 26.2 | 22.0 | 62.7 | 61.6 | 172.5 |
| Finance lease obligations | 0.4 | 0.2 | – | – | 0.6 |
| Financial liabilities in trade and other payables | 2,342.9 | 0.1 | 1.0 | 479.1 | 2,823.1 |
| Total non-derivative financial liabilities | 2,489.6 | 24.1 | 242.5 | 1,185.0 | 3,941.2 |
| Foreign exchange forwards, options and swaps – payments | 825.9 | – | – | – | 825.9 |
| Foreign exchange forwards, options and swaps – receipts | (809.7) | – | – | – | (809.7) |
| Total derivative financial liabilities | 16.2 | – | – | – | 16.2 |

# Notes on the Accounts

for the year ended 31st March 2017

## 28 Financial risk management (continued)

### 28f Offsetting financial assets and liabilities

The group and parent company only offset financial assets and liabilities when they currently have a legally enforceable right to offset the recognised amounts and they intend to either settle on a net basis or realise the asset and settle the liability simultaneously. The following financial assets and liabilities are subject to offsetting, enforceable master netting arrangements or similar agreements:

| **Group as at 31st March 2017** | **Gross financial assets / (liabilities) £ million** | **Amounts set off £ million** | **Net amounts in balance sheet £ million** | **Related amounts not set off £ million** | **Net £ million** |
|---|---|---|---|---|---|
| Cash and cash equivalents – cash and deposits | **401.7** | **(71.3)** | **330.4** | **–** | **330.4** |
| Other financial assets | **7.5** | **–** | **7.5** | **(6.4)** | **1.1** |
| Cash and cash equivalents – bank overdrafts | **(103.1)** | **71.3** | **(31.8)** | **–** | **(31.8)** |
| Other financial liabilities | **(14.9)** | **–** | **(14.9)** | **6.4** | **(8.5)** |

| **Group as at 31st March 2016** | Gross financial assets / (liabilities) £ million | Amounts set off £ million | Net amounts in balance sheet £ million | Related amounts not set off £ million | Net £ million |
|---|---|---|---|---|---|
| Cash and cash equivalents – cash and deposits | 362.6 | (58.1) | 304.5 | – | 304.5 |
| Other financial assets | 8.5 | – | 8.5 | (4.9) | 3.6 |
| Cash and cash equivalents – bank overdrafts | (78.8) | 58.1 | (20.7) | – | (20.7) |
| Other financial liabilities | (17.9) | – | (17.9) | 4.9 | (13.0) |

| **Parent company as at 31st March 2017** | **Gross financial assets / (liabilities) £ million** | **Amounts set off £ million** | **Net amounts in balance sheet £ million** | **Related amounts not set off £ million** | **Net £ million** |
|---|---|---|---|---|---|
| Cash and cash equivalents – cash and deposits | **267.0** | **(19.3)** | **247.7** | **–** | **247.7** |
| Other financial assets | **7.6** | **–** | **7.6** | **(7.5)** | **0.1** |
| Cash and cash equivalents – bank overdrafts | **(34.8)** | **19.3** | **(15.5)** | **–** | **(15.5)** |
| Other financial liabilities | **(15.7)** | **–** | **(15.7)** | **7.5** | **(8.2)** |

| **Parent company as at 31st March 2016** | Gross financial assets / (liabilities) £ million | Amounts set off £ million | Net amounts in balance sheet £ million | Related amounts not set off £ million | Net £ million |
|---|---|---|---|---|---|
| Cash and cash equivalents – cash and deposits | 243.1 | (16.2) | 226.9 | – | 226.9 |
| Other financial assets | 9.2 | – | 9.2 | (5.1) | 4.1 |
| Cash and cash equivalents – bank overdrafts | (29.6) | 16.2 | (13.4) | – | (13.4) |
| Other financial liabilities | (19.0) | – | (19.0) | 5.1 | (13.9) |

### 28g Capital management

The group's policy for managing capital is to maintain an efficient balance sheet to ensure that the group always has sufficient resources to be able to invest in future growth. The group has a long term target of a return on invested capital (underlying operating profit divided by average capital employed over the year) of 20% to ensure focus on efficient use of the group's capital. See the section on return on invested capital in the Financial Review on page 46 for more information. The group also has a long term target of net debt (including post tax pension deficits) to EBITDA of between 1.5 and 2.0 times although in any given year it may fall outside this range depending on future plans. See the section on capital structure in the Financial Review on page 46 for more information.

Net debt (including post tax pension deficits) is reduced for the quoted bonds purchased to fund the UK pension deficit. Since the UK pension plan is in surplus, the pension deficits do not include the UK plan and so an amendment has been made to the definition of net debt (including post tax pension deficits) to reduce it for these bonds (net of the related deferred tax) only when the UK pension plan is in deficit. As a result, the 2016 net debt (including post tax pension deficits) to EBITDA has been restated.

# Notes on the Accounts

for the year ended 31st March 2017

## 28 Financial risk management (continued)

### 28g Capital management (continued)

| | Group 2017 £ million | 2016 restated £ million |
|---|---|---|
| Average net debt | **878.5** | 691.0 |
| Average equity | **1,937.1** | 1,909.2 |
| **Average capital employed** | **2,815.6** | 2,600.2 |
| Net debt | **715.7** | 674.9 |
| Pension deficits | **55.6** | 52.6 |
| Bonds purchased to fund pensions (excluded when UK pension plan is in surplus) | **–** | – |
| Related deferred taxation | **(12.8)** | (28.4) |
| **Net debt (including post tax pension deficits)** | **758.5** | 699.1 |
| Operating profit | **493.2** | 418.9 |
| Add back depreciation and amortisation | **171.8** | 157.6 |
| Impairment of acquired intangibles | **–** | 2.6 |
| Profit on sale or liquidation of businesses | **–** | (130.0) |
| Major impairment and restructuring charges | **–** | 141.0 |
| **Earnings before interest, tax, depreciation and amortisation (EBITDA)** | **665.0** | 590.1 |
| Return on invested capital | **18.2%** | 17.3% |
| Net debt (including post tax pension deficits) to EBITDA | **1.1 times** | 1.2 times |

## 29 Provisions and contingent liabilities

### 29a Group

| | Restructuring provisions £ million | Warranty and technology provisions £ million | Other provisions £ million | Total £ million |
|---|---|---|---|---|
| At 1st April 2016 | 26.4 | 17.2 | 18.3 | 61.9 |
| Charge for year | 4.0 | 1.1 | 0.1 | 5.2 |
| Acquisitions (note 36) | – | 0.2 | 0.7 | 0.9 |
| Utilised | (18.9) | (0.5) | (2.9) | (22.3) |
| Released | (0.6) | (7.2) | (2.6) | (10.4) |
| Unwinding of discount | – | – | 0.7 | 0.7 |
| Exchange adjustments | 1.3 | 0.7 | 1.4 | 3.4 |
| **At 31st March 2017** | **12.2** | **11.5** | **15.7** | **39.4** |

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Current | **21.0** | 41.3 |
| Non-current | **18.4** | 20.6 |
| **Total provisions** | **39.4** | 61.9 |

The restructuring provisions arise across the group and are expected to be fully spent by 31st March 2018.

The warranty and technology provisions represent management's best estimate of the group's liability under warranties granted and remedial work required under technology licences, based on past experience in Emission Control Technologies, Process Technologies and New Businesses. Warranties generally cover a period of up to three years.

The other provisions include environmental, onerous contracts and legal provisions arising across the group. Amounts provided reflect management's best estimate of the expenditure required to settle the obligations at the balance sheet date. They are expected to be fully spent over the next 16 years.

# Notes on the Accounts

for the year ended 31st March 2017

## 29 Provisions and contingent liabilities (continued)

### 29b Parent company

| | Restructuring provisions £ million | Other provisions £ million | Total £ million |
|---|---|---|---|
| At 1st April 2016 | 8.1 | 16.5 | 24.6 |
| Charge for year | 1.5 | 4.3 | 5.8 |
| Utilised | (6.3) | (1.6) | (7.9) |
| Released | (0.6) | – | (0.6) |
| Unwinding of discount | – | 0.4 | 0.4 |
| **At 31st March 2017** | **2.7** | **19.6** | **22.3** |

| | **2017 £ million** | 2016 £ million |
|---|---|---|
| Current | **4.5** | 11.2 |
| Non-current | **17.8** | 13.4 |
| **Total provisions** | **22.3** | 24.6 |

The restructuring provisions arise across the company and are expected to be fully spent by 31st March 2018.

The other provisions include onerous contracts, legal provisions and provisions to buy metal to cover positions created by the parent company selling metal belonging to subsidiaries. Amounts provided reflect management's best estimate of the expenditure required to settle the obligations at the balance sheet date.

Details of guarantees given by the parent company are disclosed in note 28a.

## 30 Deferred taxation

### 30a Group

| | Property, plant and equipment £ million | Post-employment benefits £ million | Provisions £ million | Inventories £ million | Intangibles £ million | Other £ million | Total deferred tax (assets) / liabilities £ million |
|---|---|---|---|---|---|---|---|
| At 1st April 2015 | 67.6 | (39.3) | (21.8) | (15.6) | 39.6 | 17.9 | 48.4 |
| (Credit) / charge to income | (15.8) | (1.3) | 4.4 | 2.9 | (5.1) | (2.3) | (17.2) |
| Acquisitions | – | – | – | – | 1.4 | 0.8 | 2.2 |
| Tax on items taken directly to or transferred from equity | – | 39.1 | – | – | – | 2.0 | 41.1 |
| Exchange adjustments | 0.6 | (1.1) | 0.3 | 0.2 | 2.1 | 0.6 | 2.7 |
| At 31st March 2016 | 52.4 | (2.6) | (17.1) | (12.5) | 38.0 | 19.0 | 77.2 |
| (Credit) / charge to income | (5.1) | 8.4 | (0.9) | 0.3 | (9.0) | 13.8 | 7.5 |
| Acquisitions (note 36) | (0.1) | – | (0.7) | (0.1) | 0.5 | (0.9) | (1.3) |
| Tax on items taken directly to or transferred from equity | – | (2.0) | – | – | – | 0.7 | (1.3) |
| Exchange adjustments | 6.8 | (3.6) | (2.7) | (0.7) | 4.3 | 1.2 | 5.3 |
| **At 31st March 2017** | **54.0** | **0.2** | **(21.4)** | **(13.0)** | **33.8** | **33.8** | **87.4** |

| | **2017 £ million** | 2016 £ million |
|---|---|---|
| Deferred tax assets | **(25.6)** | (22.2) |
| Deferred tax liabilities | **113.0** | 99.4 |
| | **87.4** | 77.2 |

Deductible temporary differences, unused tax losses and unused tax credits not recognised on the balance sheet total £119.8 million (2016: £113.9 million) of which £22.0 million is expected to expire within 5 years, £2.7 million within 5 to 10 years and £95.1 million carry no expiry date.

Deferred tax liabilities have not been recognised on temporary differences of £1,327.7 million (2016: £936.5 million) associated with investments in subsidiaries.

# Notes on the Accounts

for the year ended 31st March 2017

## 30 Deferred taxation (continued)

### 30b Parent company

| | Property, plant and equipment £ million | Post-employment benefits £ million | Provisions £ million | Inventories £ million | Intangibles £ million | Other £ million | Total deferred tax (assets) / liabilities £ million |
|---|---|---|---|---|---|---|---|
| At 1st April 2015 | 20.0 | (7.0) | (0.4) | (10.5) | 0.4 | 7.3 | 9.8 |
| (Credit) / charge to income | (11.9) | (1.6) | – | 3.4 | 0.1 | 0.1 | (9.9) |
| Tax on items taken directly to or transferred from equity | – | 34.2 | – | – | – | 1.1 | 35.3 |
| At 31st March 2016 | 8.1 | 25.6 | (0.4) | (7.1) | 0.5 | 8.5 | 35.2 |
| (Credit) / charge to income | (6.0) | 2.6 | (1.0) | 0.1 | – | (0.6) | (4.9) |
| Tax on items taken directly to or transferred from equity | – | (3.2) | – | – | – | 0.1 | (3.1) |
| **At 31st March 2017** | **2.1** | **25.0** | **(1.4)** | **(7.0)** | **0.5** | **8.0** | **27.2** |

Deductible temporary differences, unused tax losses and unused tax credits not recognised on the balance sheet are £2.0 million (2016: £3.0 million) and have no expiry date.

## 31 Share capital

| | Number | £ million |
|---|---|---|
| **Issued and fully paid ordinary shares** | | |
| At 1st April 2015 | 210,642,995 | 220.7 |
| Effect of share consolidation | (11,702,389) | – |
| **At 31st March 2016 and 31st March 2017** | **198,940,606** | **220.7** |

Details of outstanding share options, allocations under the company's long term incentive plan and awards under the deferred bonus which have yet to mature are disclosed in note 14.

At the last annual general meeting on 20th July 2016, shareholders approved a resolution for the company to make purchases of its own shares up to a maximum number of 19,353,343 ordinary shares of 110 49/53 pence each. The resolution remains valid until the conclusion of this year's annual general meeting. The company will purchase its own shares when the board believes it to be in the best interests of the shareholders generally and will result in an increase in earnings per share.

The group and parent company's employee share ownership trust (ESOT) also buys shares on the open market and holds them in trust for employees participating in the group's executive share option schemes and long term incentive plan. At 31st March 2017 the ESOT held 1,743,333 shares (2016: 1,789,390 shares) which had not yet vested unconditionally in employees. Computershare Trustees (CI) Limited, as trustee for the ESOT, has waived its dividend entitlement.

The total number of treasury shares held was 5,407,176 (2016: 5,407,176) at a total cost of £91.7 million (2016: £91.7 million).

## 32 Tax effects relating to other comprehensive income

| | **2017** | | | 2016 | | |
|---|---|---|---|---|---|---|
| | **Before tax £ million** | **Tax £ million** | **Net of tax £ million** | Before tax £ million | Tax £ million | Net of tax £ million |
| Currency translation differences | **165.2** | **(0.6)** | **164.6** | 24.1 | – | 24.1 |
| Cash flow hedges | **(1.4)** | **0.2** | **(1.2)** | 5.6 | (2.0) | 3.6 |
| Fair value losses on net investment hedges | **(21.0)** | **–** | **(21.0)** | (1.2) | (2.7) | (3.9) |
| Fair value gains / (losses) on available-for-sale investments | **7.0** | **–** | **7.0** | (5.5) | – | (5.5) |
| Remeasurements of post-employment benefit assets and liabilities | **(18.4)** | **2.0** | **(16.4)** | 180.1 | (39.1) | 141.0 |
| **Total other comprehensive income** | **131.4** | **1.6** | **133.0** | 203.1 | (43.8) | 159.3 |

# Notes on the Accounts

for the year ended 31st March 2017



## 33 Other reserves

### 33a Group

| | Capital redemption reserve £ million | Foreign currency translation £ million | Available-for-sale reserve £ million | Hedging reserve £ million | Total other reserves £ million |
|---|---|---|---|---|---|
| At 1st April 2015 | 6.5 | (20.3) | 5.4 | (12.6) | (21.0) |
| Cash flow hedges – losses taken to equity | – | – | – | (4.0) | (4.0) |
| Cash flow hedges – transferred to income statement | – | – | – | 10.0 | 10.0 |
| Cash flow hedges – transferred to non-financial liabilities | – | – | – | (0.4) | (0.4) |
| Fair value losses on net investment hedges taken to equity | – | (11.7) | – | – | (11.7) |
| Fair value losses on net investment hedges transferred to income statement | – | 10.5 | – | – | 10.5 |
| Fair value losses on available-for-sale investments | – | – | (5.0) | – | (5.0) |
| Currency translation differences on foreign currency net investments and related loans taken to equity | – | 32.5 | – | – | 32.5 |
| Currency translation differences transferred to income statement | – | (8.5) | – | – | (8.5) |
| Tax on items taken directly to or transferred from equity | – | (2.7) | – | (2.0) | (4.7) |
| At 31st March 2016 | 6.5 | (0.2) | 0.4 | (9.0) | (2.3) |
| Cash flow hedges – losses taken to equity | – | – | – | (8.1) | (8.1) |
| Cash flow hedges – transferred to income statement | – | – | – | 6.8 | 6.8 |
| Cash flow hedges – transferred to non-financial assets | – | – | – | (0.1) | (0.1) |
| Fair value losses on net investment hedges taken to equity | – | (21.0) | – | – | (21.0) |
| Fair value gains on available-for-sale investments | – | – | 4.5 | – | 4.5 |
| Fair value losses on available-for-sale investments transferred to income statement | – | – | 2.0 | – | 2.0 |
| Currency translation differences on foreign currency net investments and related loans taken to equity | – | 165.2 | – | – | 165.2 |
| Tax on items taken directly to or transferred from equity | – | (0.6) | – | 0.2 | (0.4) |
| **At 31st March 2017** | **6.5** | **143.4** | **6.9** | **(10.2)** | **146.6** |

Cash flow hedges transferred to the income statement are included in:

| | **2017 £ million** | 2016 £ million |
|---|---|---|
| Revenue | **9.2** | 1.4 |
| Cost of sales | **(3.0)** | 8.2 |
| Administrative expenses | **0.2** | – |
| Finance costs | **0.4** | 0.4 |
| | **6.8** | 10.0 |

### 33b Parent company

| | Capital redemption reserve £ million | Foreign currency translation £ million | Available-for-sale reserve £ million | Hedging reserve £ million | Total other reserves £ million |
|---|---|---|---|---|---|
| At 1st April 2015 | 6.5 | (3.4) | – | (12.0) | (8.9) |
| Cash flow hedges – losses taken to equity | – | – | – | (0.5) | (0.5) |
| Cash flow hedges – transferred to income statement | – | – | – | 5.3 | 5.3 |
| Fair value gains on available for sale investments | – | – | 3.0 | – | 3.0 |
| Currency translation differences on foreign operations taken to equity | – | 0.6 | – | – | 0.6 |
| Tax on items taken directly to or transferred from equity | – | – | – | (1.1) | (1.1) |
| At 31st March 2016 | 6.5 | (2.8) | 3.0 | (8.3) | (1.6) |
| Cash flow hedges – losses taken to equity | – | – | – | (3.2) | (3.2) |
| Cash flow hedges – transferred to income statement | – | – | – | 1.3 | 1.3 |
| Currency translation differences on foreign operations taken to equity | – | 2.5 | – | – | 2.5 |
| Tax on items taken directly to or transferred from equity | – | – | – | 0.3 | 0.3 |
| **At 31st March 2017** | **6.5** | **(0.3)** | **3.0** | **(9.9)** | **(0.7)** |

# Notes on the Accounts

for the year ended 31st March 2017

## 34 Gross cash flows

### 34a Purchases of non-current assets and investments

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Purchases of property, plant and equipment | **193.6** | 191.0 | **35.8** | 50.1 |
| Purchases of intangible assets | **65.9** | 62.5 | **64.9** | 48.7 |
| Investment in subsidiaries | **–** | – | **12.4** | 225.7 |
| Purchases of available-for-sale investments | **–** | – | **–** | 7.1 |
| | **259.5** | 253.5 | **113.1** | 331.6 |

### 34b Purchases of businesses

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Purchases of businesses | **21.1** | 22.8 | **–** | 2.6 |
| Cash acquired with businesses | **(1.4)** | (4.9) | **–** | – |
| Consideration refunded for prior years' acquisitions | **–** | (1.8) | **–** | – |
| Consideration paid for prior years' acquisitions | **–** | 0.5 | **–** | 0.4 |
| | **19.7** | 16.6 | **–** | 3.0 |

### 34c Net proceeds from sale of businesses

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Sale of businesses | **–** | 246.9 | **–** | – |
| Cash disposed of with businesses | **–** | (2.3) | **–** | – |
| | **–** | 244.6 | **–** | – |

### 34d Net cost of ESOT transactions in own shares

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Purchase of own shares by ESOT | **(6.2)** | (3.3) | **(6.2)** | (3.3) |
| Release of own shares by ESOT | **0.1** | 0.2 | **0.1** | 0.2 |
| | **(6.1)** | (3.1) | **(6.1)** | (3.1) |

### 34e Proceeds from additional borrowings

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Proceeds from borrowings falling due within one year | **–** | 9.7 | **–** | 2.1 |
| Proceeds from borrowings falling due after more than one year | **80.8** | 124.7 | **80.8** | 124.7 |
| | **80.8** | 134.4 | **80.8** | 126.8 |

### 34f Repayment of borrowings and finance leases

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Repayment of borrowings falling due within one year | **128.9** | 211.2 | **115.9** | 191.0 |
| Repayment of borrowings falling due after more than one year | **3.9** | – | **–** | – |
| Capital element of finance lease rental payments | **0.4** | 0.4 | **0.4** | 0.4 |
| | **133.2** | 211.6 | **116.3** | 191.4 |

# Notes on the Accounts

for the year ended 31st March 2017



## 35 Cash and cash equivalents

| | Group | | Parent company | |
|---|---|---|---|---|
| | **2017 £ million** | 2016 £ million | **2017 £ million** | 2016 £ million |
| Cash and deposits | **330.4** | 304.5 | **247.7** | 226.9 |
| Bank overdrafts | **(31.8)** | (20.7) | **(15.5)** | (13.4) |
| **Cash and cash equivalents** | **298.6** | 283.8 | **232.2** | 213.5 |

## 36 Acquisitions

If all the acquisitions in the year had been completed on 1st April 2016, the revenue for the group would have been £12,032.0 million and its profit for the year £384.3 million.

The group's long term strategy is to establish new businesses in adjacent markets with strong growth potential that align to the group's technology competences. Therefore from time to time the group acquires businesses in order to further that aim and better understand the technologies in that market. One of these new businesses is its Water Technologies business and two acquisitions for this business were made during the year. On 1st April 2016, the group acquired 100% of the share capital of MIOX Corporation, a developer and supplier of advanced water disinfectant technology. On 31st May 2016, the group acquired 100% of the share capital of Finex Oy, a supplier of advanced polymer resin technology. The goodwill arising on these acquisitions is attributable to opportunities to access expertise in this area and anticipated future synergies.

The fair value of the net assets acquired, consideration paid, goodwill arising on these transactions, acquisition-related expenses and contribution to the group's results since acquisition were:

| | **MIOX £ million** | **Finex £ million** |
|---|---|---|
| **Net assets acquired** | | |
| Property, plant and equipment | **0.2** | **0.7** |
| Intangible assets | **14.3** | **1.2** |
| Inventories | **1.1** | **0.6** |
| Trade and other receivables | **0.6** | **1.1** |
| Cash and cash equivalents | **0.7** | **0.7** |
| Current other borrowings | **(0.7)** | **–** |
| Trade and other payables | **(2.4)** | **(1.0)** |
| Current income tax assets | **–** | **0.1** |
| Deferred income tax assets / (liabilities) | **1.5** | **(0.2)** |
| Provisions | **(0.9)** | **–** |
| Non-current other borrowings | **(3.7)** | **(0.4)** |
| Total net assets acquired | **10.7** | **2.8** |
| Goodwill on acquisition | **4.2** | **3.2** |
| | **14.9** | **6.0** |
| **Satisfied by** | | |
| Purchase consideration – cash | **14.9** | **6.0** |
| Acquisition-related costs charged to administrative expenses | **0.2** | **0.2** |
| Revenue since acquisition | **4.3** | **6.0** |
| (Loss) / profit since acquisition | **(1.6)** | **0.2** |
| Trade and other receivables – gross contractual amounts receivable | **0.7** | **1.1** |
| Trade and other receivables – estimate of amounts not expected to be collected | **0.1** | **–** |

None of the goodwill arising on acquisitions completed during the year is expected to be deductible for tax purposes.

## 37 Precious metal operating leases

The group leases, rather than purchases, precious metals to fund temporary peaks in metal requirements provided market conditions allow. These leases are from banks for specified periods (typically a few months) and for which the group pays a fee. These arrangements are classified as operating leases. The group holds sufficient precious metal inventories to meet all the obligations under these lease arrangements as they fall due. At 31st March 2017 precious metal leases were £77.0 million (2016: £70.3 million).

# Notes on the Accounts

for the year ended 31st March 2017

## 38 Commitments

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| Future capital expenditure contracted but not provided | **18.9** | 39.6 | **2.2** | 12.8 |
| Future minimum amounts payable under non-cancellable operating leases | | | | |
| Within one year | **18.9** | 19.3 | **2.9** | 2.6 |
| From one to five years | **38.4** | 30.6 | **8.7** | 8.1 |
| After five years | **39.4** | 42.8 | **11.2** | 13.1 |
| | **96.7** | 92.7 | **22.8** | 23.8 |
| Future minimum sublease payments expected to be received under non-cancellable operating leases | **0.1** | – | **–** | – |
| Future minimum amounts payable under finance leases | | | | |
| Within one year | **0.2** | 0.4 | **0.2** | 0.4 |
| From one to five years | **0.1** | 0.2 | **–** | 0.2 |
| Present value of finance lease obligations | **0.3** | 0.6 | **0.2** | 0.6 |

The group and parent company lease some of its property, plant and equipment which are used by the group and parent company in their operations.

## 39 Transactions with related parties

Transactions between the parent company and its subsidiaries, which are related parties, have been eliminated on consolidation and so are only disclosed for the parent company's accounts. The group's joint venture and associate are related parties. Guarantees of subsidiaries' liabilities are disclosed in note 28a.

| | Group 2017 £ million | Group 2016 £ million | Parent company 2017 £ million | Parent company 2016 £ million |
|---|---|---|---|---|
| **Trading transactions with joint venture** | | | | |
| Purchases of goods | **4.5** | 3.2 | **4.5** | 1.5 |
| **Trading transactions with associate** | | | | |
| Rendering of services | **0.7** | 1.8 | **–** | – |
| Amounts receivable from long term contract customers | **–** | 1.8 | **–** | – |
| Trade payables | **(0.1)** | (0.3) | **–** | (0.3) |
| **Trading transactions with subsidiaries** | | | | |
| Sale of goods | **–** | – | **1,848.2** | 1,645.0 |
| Purchases of goods | **–** | – | **502.5** | 375.5 |
| Income from service charges | **–** | – | **34.8** | 37.7 |
| Amounts receivable from subsidiaries | **–** | – | **198.7** | 152.4 |
| Amounts payable to subsidiaries | **–** | – | **192.7** | 35.0 |
| Loans to subsidiaries | **–** | – | **1,789.4** | 1,593.8 |
| Loans from subsidiaries | **–** | – | **2,607.7** | 2,538.1 |

The group's post-employment benefits plans are related parties and the group's and parent company's transactions with them are disclosed in note 15.

The transactions with key management personnel are described in note 13c.

# Notes on the Accounts

for the year ended 31st March 2017



## 40 Key sources of estimation uncertainty

Determining the carrying amounts of some assets and liabilities requires estimation of the effects of uncertain future events on those assets and liabilities at the balance sheet date. The group and parent company have made appropriate estimates when applying the accounting policies, but the actual outcome may differ from those calculated.

The key sources of estimation uncertainty at the balance sheet date which have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are:

**Post-employment benefits**

The group's and parent company's defined benefit plans are assessed annually by qualified independent actuaries. The details of the plans and assumptions used are described in note 15.

**Goodwill, other intangible assets and other assets**

Annual impairment reviews of goodwill of £607.1 million (parent company £123.4 million) are performed which require various assumptions (note 17). Other intangible assets which are not yet being amortised are also subject to annual impairment reviews. Other assets are assessed for impairment when there is a triggering event that provides evidence that an asset may be impaired. Impairment reviews are based on discounted cash flow projections. Actual outcomes could vary significantly from such estimates. Factors such as changes in discount rates, long term growth rates, presence of competition, technical obsolescence and lower than anticipated sales could lead to shorter lives or impairment.

**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 then reasonable estimates may be used to determine the tax charge and associated tax provisions included in the accounts. The group faces a number of audits in jurisdictions around the world and, in some cases, is in dispute with the tax authorities. The issues under discussion are often complex and can require many years to resolve. If the tax eventually payable or reclaimable differs then the difference will be charged or credited in the accounts for the year in which it is determined. Management believes its position on all its audits and disputes is robust and its tax provisions are appropriate. It is possible that some of these provisions may reduce in the future to the extent that any tax authority challenge is unsuccessful, or matters lapse following expiry of the relevant statutes of limitation.

**Refining process and stock takes**

The group's and parent company's refining and fabrication businesses process significant quantities of precious metal and, similar to many industrial activities, losses may arise during processing. The refining businesses alone process over four million oz of platinum group metals each year. The extent of process losses depends on many factors, including the nature of material being refined, the specific refining processes applied and the processes' efficiency. Judgment is therefore required in estimating the amount of such losses when setting process loss provisions. Also stock takes, particularly at the refining businesses, involve estimation of volumes in the refining system and the subsequent sampling and assaying of material to assess the precious metal content. In addition, the results of sampling and assaying and therefore the stock take itself are only available some time after the date of the stock take. In setting process loss provisions and assessing the stock take results, management takes account of the complexity of the stock take process, past experience, the ability to extract precious metals from the refining process and other factors when estimating losses and gains.

# Notes on the Accounts

for the year ended 31st March 2017

## 41 Related undertakings

A full list of related undertakings at 31st March 2017 (comprising subsidiaries, joint ventures and associates) is set out below. Those held directly by the parent company are marked with an asterisk (*) and those held jointly by the parent company and a subsidiary are marked with a cross (+). All the companies are wholly owned unless otherwise stated. All the related undertakings are involved in the principal activities of the group. Unless otherwise stated, the share class of each related undertaking comprises ordinary shares only.

| Entity | Registered address |
|---|---|
| +Johnson Matthey Argentina S.A. | Tucumán 1 Piso 4, CP 1049, Buenos Aires, Argentina |
| Johnson Matthey (Aust) Ltd | 64 Lillee Crescent, Tullamarine VIC 3043, Australia |
| +Johnson Matthey Holdings Limited | 64 Lillee Crescent, Tullamarine VIC 3043, Australia |
| Johnson Matthey Belgium BVBA | Pegasuslaan 5, 1831 Diegem, Belgium |
| Tracerco Europe BVBA | 1731 Zellik, Z3 Doornveld 115, Belgium |
| The Argent Insurance Co. Limited | Clarendon House, 2 Church Street, Hamilton, HM11, Bermuda |
| Johnson Matthey Brasil Ltda | Avenida Macuco, 726, 12th Floor, Edifício International Office, CEP04523-001, Brazil |
| Stepac Brazil Ltda | Rua Itapolis, n° 1921, Pacaembu, São Paulo, 01245-000, Brazil |
| Tracerco do Brasil – Diagnosticos de Processos Industriais Ltda | Rua Victor Civita, 66, bloco 2, salas 501/502, Condomínio Rio Office Park, Barra da Tijuca, Rio de Janeiro, CEP 22775-044, Brazil |
| Johnson Matthey Battery Materials Ltd. | 280 Liberté Ave, Candiac Québec J5R 6X1, Canada |
| Tracerco Radioactive Diagnostic Services Canada Inc. | 1173 Michener Road, Sarnia, Ontario N7S 5G5, Canada |
| Johnson Matthey Argillon (Shanghai) Emission Control Technologies Ltd. | No. 298, East Rong Le Road, Songjiang District, Shanghai, China |
| Johnson Matthey Battery Materials (Changzhou) Co., Ltd. | 1 Xin Wei Liu Road, Changzhou Export Processing Zone, Changzhou, Jiangsu Province, China |
| Johnson Matthey Chemical Process Technologies (Shanghai) Company Limited | Room 1066, Building 1, No 215 Lian He Bei Lu, Fengxian District, Shanghai, China |
| Johnson Matthey Formox (Beijing) Trading Ltd | 2007C, 20th Floor, No. 21 Building, No.5 Community, Shu Guang Xi Lane, Chaoyang District, Beijing, China |
| Johnson Matthey Process Technologies (Beijing) Co., Ltd. | Unit No. 2001-2007A, No. 21 Building, Shuguangxi Lane A5, Chaoyang District, Beijing, China |
| Johnson Matthey Research & Development (Yantai) Co., Ltd. | No. 9 Wuxi Road, Yantai Economic and Technology Development Zone, Yantai, Shandong Province, China |
| Johnson Matthey (Shanghai) Catalyst Co., Ltd. | 586 Dongxing Road, Songjiang Industry Zone, Shanghai, 201613, China |
| Johnson Matthey (Shanghai) Chemicals Limited | 588 Dongxing Road, Songjiang Industry Zone, Shanghai, 201613, China |
| Johnson Matthey (Shanghai) Trading Limited | Room 1615B, No. 118 Xinling Road, Waigaoqiao Free Trade Zone, Shanghai, China |
| Johnson Matthey (Tianjin) Chemical Co., Ltd. | Suite 1-1201, BoRun Commercial Plaza, Tianjin Development Zone, China |
| Johnson Matthey (Zhangjiagang) Precious Metal Technology Co., Ltd. | Rm. 1116-1117, The Petrochemical Trading Edifice, Zhangjiagang Free Trade Zone, Jiangsu Province, China |
| Qingdao Johnson Matthey Hero Catalyst Company Limited (51.0%) | New Material Industrial Park, Shiyuan Road, Qinda Industrial Park, Chengyang District, Qingdao, 200331, China |
| Shanghai Bi Ke Clean Energy Technology Co Ltd (11.1%) | Room 427 Building 2 No 351 Guo Shou Jing Road, China (Shanghai) Pilot Free Trade Zone, China |
| Shanghai Johnson Matthey Applied Materials Technologies Co., Ltd | Area A, 1st Floor, Building 7, 298 East Rong Le Road, Songjiang District, Shanghai, China |
| Tracerco China Process Diagnostics & Instrumentation (Shanghai) Co., Ltd. | Building 15, No 16, Lane 193, Nanlu Road, Pudong District, Shanghai, China |
| Johnson Matthey A/S | Frederikssundvej 274D, DK-2700 Brønshøj, Copenhagen, Denmark |
| *AG Holding Ltd | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Cascade Biochem Limited[1] | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Fuel Cell Today Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Ilumink Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *JMEPS Trustees Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Johnson Matthey Battery Systems Engineering Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Johnson Matthey (CM) Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Johnson Matthey Davy Technologies International Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Johnson Matthey Davy Technologies Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Johnson Matthey Fuel Cells Limited (82.5%) | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Johnson Matthey Investments Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Johnson Matthey (Nominees) Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Johnson Matthey Precious Metals Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Johnson Matthey South Africa Holdings Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Johnson Matthey Tianjin Holdings Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |

# Notes on the Accounts

for the year ended 31st March 2017



## 41 Related undertakings (continued)

| Entity | Registered address |
|---|---|
| *Katalco Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Matthey Finance Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Matthey Holdings Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Synetix Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| *Tracerco Limited | 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England |
| Finex Oy | Seppolantie 1, Kotka, 48230, Finland |
| Johnson Matthey Finland Oy | Autokatu 6, 20380 Turku, Finland |
| Kiinteistö Oy Kotkan Huumantie 5 (70%) | c/o Finex Oy, Seppolantie 1, Kotka, 48230, Finland |
| Johnson Matthey SAS | Les Diamants – Immeuble B, 41 rue Delizy, 93500 Pantin, France |
| Johnson Matthey Battery Materials GmbH | Ostenriederstr. 15, 85368 Moosburg a.d. Isar, Germany |
| Johnson Matthey Catalysts (Germany) GmbH | Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany |
| Johnson Matthey Chemicals GmbH | Wardstrasse 17, D-46446 Emmerich am Rhein, Germany |
| Johnson Matthey GmbH & Co. KG[2] | Otto-Volger-Strasse 9b, 65843 Sulzbach, Germany |
| Johnson Matthey Holding GmbH | Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany |
| Johnson Matthey Management GmbH | Otto-Volger-Strasse 9b, 65843 Sulzbach, Germany |
| Johnson Matthey Piezo Products GmbH | Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany |
| Johnson Matthey Redwitz Real Estate (Germany) B.V. & Co. KG[2] | Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany |
| Johnson Matthey Argillon Power Plant Catalysts Holdings (Hong Kong) Limited | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Johnson Matthey Hong Kong Limited | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Johnson Matthey Pacific Limited[3] | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Johnson Matthey Process Technologies Holdings Hong Kong Limited | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Johnson Matthey Tracerco Holdings Hong Kong Limited | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Johnson Matthey Yantai Holdings (Hong Kong) Limited | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Macfarlan Smith (Hong Kong) Limited | Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong |
| Intercat Equipment (Mumbai) Private Limited | Plot No 6A, MIDC Industrial Estate, Taloja, District Raigad, Maharashtra 410208, India |
| Johnson Matthey Chemicals India Private Limited | Plot No 6A, MIDC Industrial Estate, Taloja, District Raigad, Maharashtra 410208, India |
| Johnson Matthey India Private Limited | 103, Ashoka Estate, 24, Barakhamba Road, New Delhi – 110 001, India |
| Johnson Matthey Limited | 1 Stokes Place, St Stephen's Green, Dublin 2, Ireland |
| Stepac L.A. Ltd. | Tefen Industrial Park Bldg. #12, Post Box 73, Tefen, Western Galilee, 2495900, Israel |
| Johnson Matthey Italia S.r.l. | No 2, Via Talucchi, Turin, Italy |
| Johnson Matthey Fuel Cells Japan Limited (82.5%) | 5123-3 Kitsuregawa, Sakura-shi, Tochigi, 329-1412, Japan |
| Johnson Matthey Japan Godo Kaisha | 5123-3 Kitsuregawa, Sakura-shi, Tochigi, 329-1412, Japan |
| Johnson Matthey DOOEL Skopje | TIDZ Skopje 1, 1041 Ilinden, Macedonia |
| *Johnson Matthey Sdn. Bhd. | Suite 16-8, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia |
| Johnson Matthey Services Sdn. Bhd. | Suite 16-10, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia |
| Tracerco Asia Sdn. Bhd. | Suite 16-8, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia |
| Tracerco Asia Services Sdn. Bhd. | Suite 16-8, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia |
| Johnson Matthey de Mexico, S. de R.L. de C.V. | Av. de Margues y Av. de la Canada, 2a Etapa Parque Industrial Bernardo Quintana, El Marques, Queretaro C.P., 76246, Mexico |
| Johnson Matthey Servicios, S. de R.L. de C.V. | Av Ramon Rivera Lara 6620, Parque Industrial Juarez, Chihuahua, Mexico |
| Intercat Europe B.V. | Stationsstraat 50, 3451 BZ, Vleuten, Netherlands |
| Johnson Matthey Advanced Glass Technologies B.V. | Fregatweg 38, 6222 NZ Maastricht, Netherlands |
| Johnson Matthey B.V. | Otto-Volger-Strasse 9b, 65843 Sulzbach/Ts., Germany |
| Johnson Matthey Holdings B.V. | Fregatweg 38, 6222 NZ Maastricht, Netherlands |
| Johnson Matthey Netherlands B.V. | Fregatweg 38, 6222 NZ Maastricht, Netherlands |
| Johnson Matthey Netherlands 2 B.V. | Fregatweg 38, 6222 NZ Maastricht, Netherlands |
| Matthey Finance B.V.[1] | Fregatweg 38, 6222 NZ Maastricht, Netherlands |
| Tracerco Norge AS | Folke Bernadottes vei 38, 5147 Fyllingsdalen, Norway |
| Johnson Matthey Battery Systems Spólka z ograniczoną odpowiedzialnocścią | PL 44-109 Gliwice, ul. Einsteina 36, Poland |
| Johnson Matthey Poland Spólka z ograniczoną odpowiedzialnocścią | Złota 59, 00-120 Warszawa, Warsaw, Poland |
| Macfarlan Smith Portugal, Lda | Largo de São Carlos 3, 1200-410 Lisboa, Portugal |
| Johnson Matthey Catalysts LLC | 1 Transportny Proezd, 660027 Krasnoyarsk, Russia |
| *Anipel Limited | 10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland |
| *Bitrex Limited | 10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland |

# Notes on the Accounts

for the year ended 31st March 2017

## 41 Related undertakings (continued)

| Entity | Registered address |
|---|---|
| Johnson Matthey Battery Systems Limited | Pinsent Masons LLP, 13 Queen's Road, Aberdeen, AB15 4YL, Scotland |
| *Johnson Matthey General Partner (Scotland) Limited | 10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland |
| *Johnson Matthey (Scotland) Limited Partnership[2] | 10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland |
| Macfarlan Smith Limited | Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland |
| *Meconic Limited | 10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland |
| Johnson Matthey Singapore Private Limited | 80 Robinson Road, #02-00 Singapore 068898 |
| Johnson Matthey (Proprietary) Limited | Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa |
| Johnson Matthey Research South Africa (Proprietary) Limited | Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa |
| Johnson Matthey Salts (Proprietary) Limited | Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa |
| Johnson Matthey Catalysts Korea Limited | A-dong 2906-ho, 13 Heungdeok 1-ro, Giheung-gu, Yongin-si, Gyeonggi-do, South Korea |
| Johnson Matthey Korea Limited | 418, Ideok-ro, Iwol-myeon, Jincheon-gun, Chungcheongbuk-do, South Korea |
| Johnson Matthey AB | Viktor Hasselblads gata 8, 421 31 Västra Frölunda, Göteborg, Sweden |
| Johnson Matthey Formox AB | SE-284 80, Perstorp, Sweden |
| Johnson Matthey & Brandenberger AG | Glatttalstrasse 18, 8052 Zurich, Switzerland |
| Johnson Matthey Finance GmbH | Hertensteinstrasse 51, 6004 Lucerne, Switzerland |
| Johnson Matthey Finance Zurich GmbH | Glatttalstrasse 18, 8052 Zurich, Switzerland |
| LiFePO4+C Licensing AG | Hertensteinstrasse 51, 6004 Lucerne, Switzerland |
| Johnson Matthey (Thailand) Limited | 1858/12 Interlink Tower, 5th Floor, Bangna-Trad Road, Bangna Sub-District, Bangna District, Bangkok, Thailand |
| Johnson Matthey Holdings (Thailand) Limited | 1858/12 Interlink Tower, 5th Floor, Bangna-Trad Road, Bangna Sub-District, Bangna District, Bangkok, Thailand |
| Johnson Matthey Services (Trinidad and Tobago) Limited | Queen's Park Place, 17-20 Queens Park West, Port of Spain, Trinidad and Tobago |
| Stepac Ambalaj Malzemeleri Sanayi Ve Ticaret Anonim Sirketi | Mehmetçik Mahallesi Termessos Bulvarı, Ofis 24 İş Merkezi No:18 A1 Blok Kat:3, Daire No: 302 Muratpaşa – Antalya, 07300, Turkey |
| JM Holdings UK LLC | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| JM Holdings US LLC | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Fuel Cells, Inc. (82.5%) | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Holdings, Inc. | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Inc.[4] | 2595 Interstate Drive, Suite 103, Harrisburg, Dauphin County, PA 17110, USA |
| Johnson Matthey Japan, Inc. | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Materials, Inc. | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey North America, Inc. | Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, USA |
| Johnson Matthey Overseas Holdings Inc. | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Pharmaceutical Materials, Inc. | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Process Technologies, Inc. | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Stationary Emissions Control LLC | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey US 2 LLC | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Johnson Matthey Vehicle Testing & Development, LLC | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Matthey Pharmaceutical Alkaloids, LLC (50.0%) | Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, USA |
| MIOX Corporation | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |
| Red Maple LLC (50.0%) | Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA |

In some jurisdictions in which the group operates, share classes are not defined and in these instances, for the purpose of disclosure, these holdings have been classified as ordinary shares.

1 Ordinary and preference shares

2 Limited partnership, no share capital

3 Ordinary and non-cumulative redeemable preference shares

4 Ordinary and series A preferred stock

# Reconciliation of Non-GAAP Measures to GAAP Measures

for the year ended 31st March 2017

The group uses various measures to manage its business which are not defined by generally accepted accounting principles (GAAP). The group's management believes these measures provide valuable additional information to users of the accounts in understanding the group's performance.

## Sales excluding precious metals (sales)

The group believes that sales excluding precious metals is a better measure of the growth of the group than revenue. Total revenue can be heavily distorted by year on year fluctuations in the market prices of precious metals. In addition, in many cases, the value of precious metals is passed directly on to our customers.

## Underlying profit

These are the equivalent GAAP measures adjusted to exclude amortisation of acquired intangibles (note 3), major impairment and restructuring charges, profit or loss on disposal of businesses, significant tax rate changes and, where relevant, related tax effects. The group believes that these measures provide a better guide to the underlying performance of the group. These are reconciled in note 5.

## Working capital (excluding precious metals)

| | 2017 £ million | 2016 £ million |
|---|---|---|
| Inventories | **772.3** | 653.7 |
| Trade and other receivables | **1,139.4** | 948.0 |
| Trade and other payables | **(968.3)** | (812.3) |
| **Total working capital** | **943.4** | 789.4 |
| Less precious metal working capital | **(335.5)** | (256.5) |
| **Working capital (excluding precious metals)** | **607.9** | 532.9 |

## Cash flow conversion

| | 2017 £ million | 2016 £ million |
|---|---|---|
| **Adjusted operating cash flow** | **352.8** | 709.4 |
| Income tax paid | **(58.9)** | (65.8) |
| Pension deficit funding contributions | **(26.6)** | (26.6) |
| Less net purchases of non-current assets and investments | **255.6** | 249.5 |
| **Net cash flow from operations** | **522.9** | 866.5 |
| Adjusted operating cash flow | **352.8** | 709.4 |
| Precious metal working capital increase / (decrease) | **79.0** | (341.9) |
| **Adjusted operating cash flow (excluding precious metal)** | **431.8** | 367.5 |
| **Cash flow conversion** | **84%** | 82% |

## Free cash flow

| | 2017 £ million | 2016 £ million |
|---|---|---|
| **Net cash flow from operations** | **522.9** | 866.5 |
| Interest received | **4.8** | 5.2 |
| Interest paid | **(42.1)** | (33.9) |
| Purchases of non-current assets and investments | **(259.5)** | (253.5) |
| Proceeds from sale of non-current assets and investments | **3.9** | 4.0 |
| Dividends received from joint venture | **–** | 0.3 |
| **Free cash flow** | **230.0** | 588.6 |

## Other

Other non-GAAP measures are reconciled in the relevant note.

# Independent Auditor's Report

to the members of Johnson Matthey Plc only

KPMG

# Opinions and conclusions arising from our audit

## 1. Our opinion on the accounts is unmodified

We have audited the accounts of Johnson Matthey Plc for the year ended 31st March 2017 set out on pages 124 to 173. In our opinion:

- the accounts give a true and fair view of the state of the group's and of the parent company's affairs as at 31st March 2017 and of the group's profit for the year then ended;
- the group accounts have been properly prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU);
- the parent company accounts have been properly prepared in accordance with IFRS as adopted by the EU and as applied in accordance with the provisions of the Companies Act 2006; and
- the accounts have been prepared in accordance with the requirements of the Companies Act 2006; and, as regards the group accounts, Article 4 of the IAS Regulation.

| Overview | | |
|---|---|---|
| **Materiality:** group accounts as a whole | £22.0 million (2016: £20.5 million) 5% (2016: 5%) of profit before tax (2016: adjusted profit before tax) | |
| **Coverage** | 84% (2016: 83%) of group profit before tax | |
| **Risks of material misstatement** | | **vs 2016** |
| **Recurring risks** | Refinery process and stock takes | ◀▶ |
| | Carrying value of goodwill and other intangibles | ▲ |
| | Taxation accounting | ◀▶ |
| | Post-employment benefits | ◀▶ |

# Independent Auditor's Report

to the members of Johnson Matthey Plc only

## 2. Our assessment of risks of material misstatement

We summarise below the risks of material misstatement (unchanged from 2016) that had the greatest effect on our audit, in decreasing order of audit significance (order of significance changed from 2016 with taxation accounting considered more significant than post-employment benefits), our key audit procedures to address those risks and our findings (our results) based on those procedures in order that the company's members as a body may better understand the process by which we arrived at our audit opinion. These procedures were undertaken in the context of, and solely for the purposes of, our statutory audit opinion on the accounts as a whole and consequently the results of these procedures are incidental to that opinion. We do not express discrete opinions on separate elements of the accounts.

| | The Risk | Our Response |
|---|---|---|
| **Refinery process and stock takes**<br>*Refer to page 92 (Audit Committee Report) and page 169 (financial disclosures).* | **Physical quantities:**<br>The group refines a significant amount of metal as set out in note 40. The year end metal inventory quantity is determined from: (i) assay estimates of the metal contained in the carrier material entering and refined metal leaving the refining process, and (ii) estimates of process losses, rolled forward from (iii) assay estimates of the metal content in the plants at the time of stock takes which take place at different times earlier than the financial year end. The year end metal inventory is dependent, first, upon the physical quantities measured in the assay samples in (i) and (iii). The risks of quantity and estimates apply to the group's own metal and material at (ii) being processed for third parties, such that a small variation in estimates could have a material effect on the valuation of inventory in the accounts.<br><br>**Subjective estimate:**<br>Second, the group's inventory quantities are also subject to a significant degree of estimation, including consideration of process loss provisions at (iii), and stock take results, derived from assay samples. Furthermore, the plants process material on behalf of third parties, whereby the group must return pre-agreed recoverable quantities of refined metal to those parties; under recovery or other loss directly impacts the group's own metal inventory. | Our procedures included:<br>– **Controls:** Assessing through observation, interview and reperformance on a sample basis the adequacy of group controls over metal processing and inventory including physical security, metal receipt and dispatch, metal recording, assaying and stock takes;<br>– **Count attendance and design:** Attending physical stock takes to verify adherence to stock take processes and physical quantities counted;<br>– **Count vs system reconciliation:** Seeking to understand and corroborate the reasons for significant or unusual movements in inventory quantities between the accounting records and the physical stock takes. Evaluating the roll forward of inventory from the point of stock take to the year end to assess the potential for misstatement;<br>– **Historical comparisons:** Assessing provisions for inventory loss compared to historical trends and stock take results to assess the likelihood and quantum of processing loss (if any) of metal between the date of the stock take and the year end date; and<br>– **Assessing transparency:** Considering the adequacy of the group's disclosures about the degree of estimation involved in arriving at the measured inventory.<br><br>**Our results:**<br>As a result we found that the valuation of inventory is appropriately stated. |

# Independent Auditor's Report

to the members of Johnson Matthey Plc only

## 2. Our assessment of risks of material misstatement (continued)

| | The Risk | Our Response |
|---|---|---|
| **Carrying value of goodwill and other intangible assets**<br>*Refer to page 92 (Audit Committee Report), page 130 (accounting policy) and pages 149 to 152 and 169 (financial disclosures).* | **Forecast-based valuation:**<br>The group has significant intangible assets and goodwill arising from the acquisition of businesses and investments in new products and technologies. Some investments and recent acquisitions are still at an early stage of commercial development and as such, carry a greater risk that they will not be commercially viable.<br><br>Recoverability of these assets is based on forecasting and discounting future cash flows, which are inherently judgmental. | Our procedures included:<br>– **Assessing methodology:** Obtaining the discounted cash flow models and assessing the principles and integrity of each model;<br>– **Benchmarking assumptions:** Challenging the group's valuation assumptions for its cash flow projections such as discount rates and cost inflation, with reference to internally and externally derived sources;<br>– **Our valuations expertise:** Assessing the inputs based on our own insights and experience and challenging the appropriateness of the discount rate with the assistance of our own valuation specialists;<br>– **Sensitivity analysis:** Performing breakeven analysis on the assumptions noted above;<br>– **Historical comparisons:** Assessing the group's historical forecasting accuracy; and<br>– **Assessing transparency:** Considering the adequacy of the group's disclosures in respect of impairment testing and whether disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions properly reflected the risks inherent in the valuations; and<br><br>**Our results:** As a result of our testing we found that management's assessment that no impairments were required was supported by reasonable assumptions. |
| **Taxation accounting**<br>*Refer to page 92 (Audit Committee Report), page 131 (accounting policy) and page 169 (financial disclosures).* | **Subjective estimate:**<br>The group operates in multiple jurisdictions governed by national tax laws and regulations and is required to estimate the tax effect of cross border transactions including transfer pricing arrangements. Where the precise impact of these laws and regulations on indirect taxes and the tax payable on profits arising in those jurisdictions is unclear, the group seeks to make reasonable estimates to determine the tax charge arising. | Our procedures included:<br>– **Test of details:** Assessed correspondence with the relevant tax authorities including the status of recent and current tax authority audits and enquiries;<br>– **Our taxation expertise:** With the assistance of our own local and international tax specialists, who have knowledge of the relevant indirect and direct tax regimes and experience in their application, analysing and challenging the assumptions used to determine the tax charge and provisioning; and benchmarking assumptions; and<br>– **Assessing transparency:** Considering the adequacy of the group's disclosures in respect of tax and uncertain tax positions.<br><br>**Our results:** From the evidence obtained, we found the level of tax provisioning to be appropriate. |

# Independent Auditor's Report

to the members of Johnson Matthey Plc only



## 2. Our assessment of risks of material misstatement (continued)

| | The Risk | Our Response |
|---|---|---|
| **Post-employment benefits**<br>*Refer to page 92 (Audit Committee Report), page 132 (accounting policy) and pages 142 to 148 (financial disclosures).* | **Subjective valuation:**<br>Small changes in assumptions and estimates used to value the group's post-employment benefit obligations would have a significant effect on the group's financial position. | Our procedures included:<br>– **Our pensions expertise:** Challenging the key assumptions, being the discount rates, inflation rates, and mortality / life expectancies supporting the group's post-employment benefit obligations valuations, with the support of our own actuarial specialists;<br>– **Benchmarking assumptions:** Comparing these key assumptions used against externally derived data;<br>– **Sensitivity analysis:** Performing breakeven analysis on the assumptions noted above; and<br>– **Assessing transparency:** Considering the adequacy of the group's disclosures in respect of the sensitivity of the liabilities to these assumptions.<br>**Our results:** As a result of our testing we found that the post-employment benefit obligations were appropriately stated. |

# Independent Auditor's Report

to the members of Johnson Matthey Plc only

## 3. Our application of materiality and an overview of the scope of our audit

Materiality for the group accounts as a whole was set at £22.0 million (2016: £20.5 million), determined with reference to a benchmark of group profit before tax (2016: adjusted profit before tax), of which it represents 5% (2016: 5%).

We agreed to report to the Audit Committee any corrected or uncorrected identified profit misstatements exceeding £0.5 million (2016: £0.5 million), in addition to other identified misstatements warranting reporting on qualitative grounds.

In establishing the overall approach to our audit, we considered the decentralised nature of the group's operations, the risk profile of countries where the group operates, our historical audit findings and changes taking place within the business. We also considered the financial significance and risks associated with each business together with any local statutory audit requirements.

Of the group's 57 (2016: 55) reporting components, we subjected 44 (2016: 43) to audits for group reporting purposes and 10 (2016: 10) to specified risk focused audit procedures over revenue, inventory and receivables, and 3 (2016: 2) to specified risk focused procedures over inventory including in China, Germany, India, Macedonia, South Africa, the UK and the US. The components for which we performed specified risk focused procedures were not individually financially significant enough to require an audit for group reporting purposes, but did present specific individual risks that needed to be addressed. The components within the scope of our work accounted for 90% of group revenue, 84% of group profit before tax and 84% of group total assets.

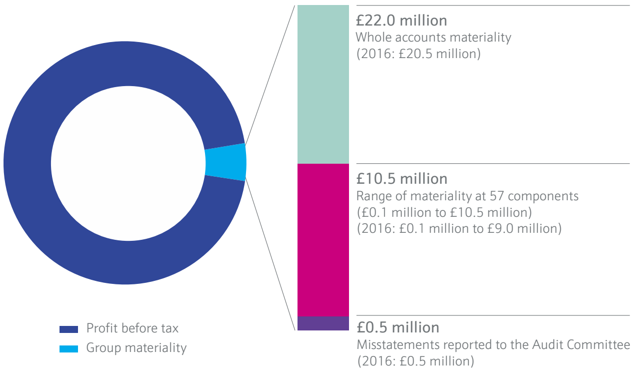
For the remaining components, we performed analysis at an aggregated group level to re-examine our assessment that there were no significant risks of material misstatement within these including through examining reports from local auditors on the results of their statutory audit work. This enables us to consider whether there is a risk of significant misstatement to the group's results that could arise from these businesses. In total these statutory audits comprise 7% of group revenue, 8% of group profit before tax and 9% of group total assets.

The group audit team instructed component auditors as to the significant areas to be covered, including the relevant risks detailed above and the information to be reported back. The group team approved component materiality, which ranged from £0.1 million to £10.5 million (2016: £0.1 million to £9.0 million), having regard to the mix of size and risk profile of the group across the components. The work on 44 of the 57 components was performed by the component auditors and the rest by the group team.

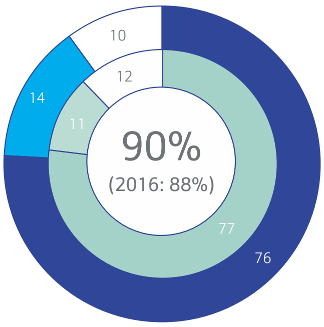
The group audit team visited six component locations (2016: seven) in China, India, Sweden, the Netherlands, UK and the US, including to assess the audit risk and strategy. Telephone conference meetings were also held with these component auditors and all others that were not physically visited. At these visits and meetings, the findings reported to the group audit team were discussed in more detail, and any further work required by the group audit team was then performed by the component auditor.

**Profit before tax (2016 adjusted profit before tax)**
£460.4 million
(2016: £397.3 million)

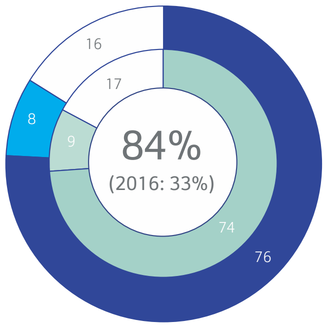
**Materiality**
£22.0 million
(2016: £20.5 million)



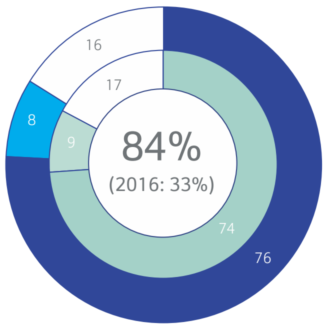

**Group revenue**




**Group profit before tax**




**Group total assets**




- Full scope for group audit purposes 2017
- Specified risk focused audit procedures 2017
- Full scope for group audit purposes 2016
- Specified risk focused audit procedures 2016
- Residual components

# Independent Auditor's Report

to the members of Johnson Matthey Plc only

## 4. Our opinion on other matters prescribed by the Companies Act 2006 is unmodified

The part of the director's Remuneration Report to be audited extends from the Single Figure Table of Remuneration on page 109 to, and including, the Statement of Director's Shareholding on page 113; and in addition comprises the Explanation of Figures on page 110, the Variable Pay – Additional Disclosures, Including Bases of Calculation and Outcomes on pages 110 to 111, long term incentive vesting outcomes on pages 111 and 112, the Pension Entitlements on page 112 and the Payments for Loss of Office on page 113.

In our opinion:

- the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006; and
- the information given in the Strategic Report and the Directors' Report for the financial year is consistent with the accounts.

Based solely on the work required to be undertaken in the course of the audit of the accounts and from reading the Strategic Report and the Directors' Report:

- we have not identified material misstatements in those reports; and
- in our opinion, those reports have been prepared in accordance with the Companies Act 2006.

## 5. We have nothing to report on the disclosures of principal risks

Based on the knowledge we acquired during our audit, we have nothing material to add or draw attention to in relation to:

- the directors' statement of longer term viability on page 47, concerning the principal risks, their management, and, based on that, the directors' assessment and expectations of the group's continuing in operation over the three years to 31st March 2020.

## 6. We have nothing to report in respect of the matters on which we are required to report by exception

Under ISAs (UK and Ireland) we are required to report to you if, based on the knowledge we acquired during our audit, we have identified other information in the annual report that contains a material inconsistency with either that knowledge or the accounts, a material misstatement of fact, or that is otherwise misleading.

In particular, we are required to report to you if:

- we have identified material inconsistencies between the knowledge we acquired during our audit and the directors' statement that they consider that the annual report and accounts taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the group's position and performance, business model and strategy; or
- the Audit Committee Report does not appropriately address matters communicated by us to the Audit Committee.

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company accounts and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Under the Listing Rules we are required to review:

- the directors' statements, set out on page 47, in relation to going concern and longer term viability; and
- the part of the Corporate Governance Statement on page 86 relating to the company's compliance with the 11 provisions of the 2014 UK Corporate Governance Code specified for our review.

We have nothing to report in respect of the above responsibilities.

# Scope and Responsibilities

As explained more fully in the directors' responsibilities statement set out on page 121, the directors are responsible for the preparation of the accounts and for being satisfied that they give a true and fair view. A description of the scope of an audit of accounts is provided on the Financial Reporting Council's website at www.frc.org.uk/auditscopeukprivate. This report is made solely to the company's members as a body and is subject to important explanations and disclaimers regarding our responsibilities, published on our website at www.kpmg.com/uk/auditscopeukco2014b, which are incorporated into this report as if set out in full and should be read to provide an understanding of the purpose of this report, the work we have undertaken and the basis of our opinions.

**Stephen Oxley (Senior Statutory Auditor)**
**for and on behalf of KPMG LLP, Statutory Auditor**
Chartered Accountants
15 Canada Square
London E14 5GL

31st May 2017