

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 auditors' report.

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Consolidated Income Statement

for the year ended 31st March 2020

	Notes	2020 £ million	2019 £ million
Revenue Cost of sales	1,2	14,577 (13,576)	10,745 (9,729)
Gross profit Distribution costs Administrative expenses Net impairment losses on trade and contract receivables Profit / (loss) on disposal of businesses Loss on significant legal proceedings Amortisation of acquired intangibles Major impairment and restructuring charges	27 3 3 3 3	1,001 (126) (313) (23) 2 - (13) (140)	1,016 (126) (316) (8) (12) (17) (14) 8
Operating profit Finance costs Finance income Share of profit of joint venture and associate	1,3 5 5 13	388 (195) 109 3	531 (107) 64
Profit before tax Tax expense	6	305 (50)	488 (75)
Profit for the year	-	255	413
	_	pence	pence
Earnings per ordinary share Basic Diluted	8 8	132.3 132.1	215.2 214.6

Consolidated Statement of Total Comprehensive Income

for the year ended 31st March 2020

	Notes	2020 £ million	2019 £ million
Profit for the year		255	413
Other comprehensive income Items that will not be reclassified to the income statement			
Remeasurements of post-employment benefit assets and liabilities	24	87	(69)
Fair value losses on equity investments at fair value through other comprehensive income	14	(2)	(3)
Tax on items that will not be reclassified to the income statement	7	(21)	13
		64	(59)
Items that may be reclassified to the income statement	_		
Exchange differences on translation of foreign operations	26	65	22
Fair value losses on other investments at fair value through other comprehensive income	26	-	(1)
Amounts credited to hedging reserve	26	_	4
Fair value losses on net investment hedges	26	(8)	(1)
	_	57	24
Other comprehensive income for the year	_	121	(35)
Total comprehensive income for the year		376	378

Consolidated and Parent Company Balance Sheets

as at 31st March 2020

		Group)	Parent con	npany
	Notes	2020 £ million	2019 £ million	2020 £ million	2019 £ million
	- Notes	± million	E IIIIIIOII	£ million	E IIIIIIOII
Assets Non-current assets					
Property, plant and equipment	9	1,403	1,271	290	312
Right-of-use assets	25	88	. –	19	_
Goodwill	10	580	578	115	123
Other intangible assets	11 12	396	336	288	207
Investments in subsidiaries Investments in joint venture and associate	13	23	20	1,921	1,912
Investments at fair value through other comprehensive income	14	49	52	7	7
Other receivables	17	63	39	1,214	1,010
Interest rate swaps	15	34	13	34	13
Deferred tax assets	23 24	66 317	58 209	309	199
Post-employment benefit net assets					
Total non-current assets	_	3,019	2,576	4,197	3,783
Current assets Inventories	16	1,902	1,316	779	430
Current tax assets	70	31	37	779	430
Trade and other receivables ¹	17	2,077	1,553	2,225	1,592
Cash and cash equivalents – cash and deposits		112	90	22	11
Cash and cash equivalents – money market funds	18	192	347	192	347
Other financial assets Assets held for sale	10	28 -	22 7	28 -	23
Total current assets	_	4,342	3,372	3,246	2,403
Total assets	_	7,361	5,948	7,443	6,186
Liabilities	_				·
Current liabilities					
Trade and other payables ¹	19	(2,745)	(1,647)	(4,167)	(2,874)
Lease liabilities	25	(12)	_	(3)	-
Current tax liabilities		(106)	(130)	(31)	(64)
Cash and cash equivalents – bank overdrafts Borrowings and related swaps	20	(31) (331)	(59) (184)	(20) (130)	(33) (107)
Other financial liabilities	18	(50)	(13)	(50)	(14)
Provisions	22	(11)	(20)	(85)	(23)
Total current liabilities	_	(3,286)	(2,053)	(4,486)	(3,115)
Non-current liabilities	_				
Borrowings and related swaps	20	(994)	(1,073)	(994)	(1,066)
Lease liabilities	25 23	(64)	(01)	(16)	(20)
Deferred tax liabilities Employee benefit obligations	24	(74) (104)	(91) (106)	(32) (12)	(39) (10)
Provisions	22	(9)	(9)	(1)	(1)
Other payables	19	(6)	(5)	(514)	(489)
Total non-current liabilities		(1,251)	(1,284)	(1,569)	(1,605)
Total liabilities		(4,537)	(3,337)	(6,055)	(4,720)
Net assets		2,824	2,611	1,388	1,466
Equity			001		
Share capital	26	221	221 148	221 148	221
Share premium Shares held in employee share ownership trust (ESOT)		148 (32)	(45)	(32)	148 (45)
Other reserves	26	142	87	10	8
Retained earnings ²		2,345	2,200	1,041	1,134
Total equity		2,824	2,611	1,388	1,466

 $^{^{\}rm 1}$ $\,$ The parent company prior year comparatives have been restated (see notes 17 and 19).

The accounts were approved by the Board of Directors on 11th June 2020 and signed on its behalf by:

R J MacLeod Directors

The notes on pages 145 to 202 form an integral part of the accounts.

 $^{^2}$ The parent company's profit for the year is £13 million (2019: £263 million).

Consolidated Cash Flow Statement

for the year ended 31st March 2020

	Notes	2020 £ million	2019 £ million
Cash flows from operating activities			
Profit before tax		305	488
Adjustments for:		4-4	
Share of profit of joint venture and associate		(3)	- 12
(Profit) / loss on disposal of businesses Depreciation		(2) 154	12 142
Amortisation		15 4 24	29
Impairment losses / (reversals)		146	(7)
Loss on sale of non-current assets		5	2
Share-based payments		(1)	10
Increase in inventories ¹		(575)	(394)
Increase in receivables ²		(541)	(246)
Increase in payables ³		1,115	416
Decrease in provisions		(6)	(24)
Contributions in excess of employee benefit obligations charge Changes in fair value of financial instruments		(24) 24	(40) (2)
Net finance costs		86	43
Income tax paid		(109)	(95)
Net cash inflow from operating activities		598	334
Cash flows from investing activities			
Interest received		104	61
Purchases of property, plant and equipment		(332)	(215)
Purchases of intangible assets		(111)	(86)
Proceeds from sale of assets held for sale Proceeds from sale of non-current assets		7 1	- 1
Proceeds from sale of hori current assets Proceeds from sale of businesses		· -	2
Net cash outflow from investing activities	-	(331)	(237)
Cash flows from financing activities	-		
Proceeds from borrowings		135	245
Repayment of borrowings		(123)	(2)
Dividends paid to equity shareholders	26	(167)	(156)
Settlement of currency swaps		-	(2)
Interest paid		(202)	(108)
Principal element of lease payments	-	(13)	
Net cash outflow from financing activities	_	(370)	(23)
(Decrease) / increase in cash and cash equivalents		(103)	74
Exchange differences on cash and cash equivalents		(2)	-
Cash and cash equivalents at beginning of year	-	378	304
Cash and cash equivalents at end of year	-	273	378
Cash and deposits		112	90
Money market funds		192	347
Bank overdrafts	_	(31)	(59)
Cash and cash equivalents		273	378

 $^{^{1}}$ £0.5 billion increase in precious metal inventories on higher volumes and metal price increases (see note 16).

 $^{^{2}}$ £0.4 billion increase in amounts receivable under precious metal sale and repurchase agreements (see note 17).

³ £1.0 billion increase in amounts payable under precious metal sale and repurchase agreements (see note 19).

Consolidated Statement of Changes in Equity

for the year ended 31st March 2020

	Share capital £ million	Share premium account £ million	Shares held in ESOT £ million	Other reserves (note 26) £ million	Retained earnings £ million	Total equity £ million
At 1st April 2018	221	148	(48)	62	1,995	2,378
Profit for the year Remeasurements of post-employment benefit assets and liabilities	-	-	-	-	413 (69)	413 (69)
Fair value losses on investments at fair value through other comprehensive income Exchange differences on translation	_	_	-	(4)	_	(4)
of foreign operations	-	-	-	22	_	22
Amounts credited to hedging reserve Fair value losses on net investment hedges	-	_	_	4	_	4
taken to equity Tax on other comprehensive income	_	_	_	(1)	13	(1) 13
Total comprehensive income	_	_	_	21	357	378
Dividends paid (note 26)	-	_	-	_	(156)	(156)
Share-based payments	-	_	_	_	17	17
Cost of shares transferred to employees	_	_	3	_	(10)	(7)
Tax on share-based payments Reclassification		_	_	4	1 (4)	1 –
At 31st March 2019 Impact of adoption of IFRIC 23	221	148	(45) -	87 -	2,200 5	2,611 5
At 31st March 2019 (restated)	221	148	(45)	87	2,205	2,616
Profit for the year Remeasurements of post-employment benefit assets	-	-	-	-	255	255
and liabilities Fair value losses on investments at fair value	_	_	_	_	87	87
through other comprehensive income Exchange differences on translation	_	-	-	(2)	_	(2)
of foreign operations Fair value losses on net investment hedges	_	-	-	65	-	65
taken to equity	_	_	_	(8)	_	(8)
Tax on other comprehensive income	_	-	-	-	(21)	(21)
Total comprehensive income Dividends paid (note 26)				55	321 (167)	376 (167)
Share-based payments	_	_	_	_	5	5
Cost of shares transferred to employees	_	_	13	_	(19)	(6)
At 31st March 2020	221	148	(32)	142	2,345	2,824

Parent Company Statement of Changes in Equity for the year ended 31st March 2020

	Share capital £ million	Share premium account £ million	Shares held in ESOT £ million	Other reserves (note 26) £ million	Retained earnings £ million	Total equity £ million
At 1st April 2018	221	148	(48)	_	1,075	1,396
Profit for the year Remeasurements of post-employment benefit assets	-	-	_	-	263	263
and liabilities	-	_	_	-	(63)	(63)
Amounts credited to hedging reserve	_	_	-	5	-	5
Tax on other comprehensive income	_	_	_	(1)	11	10
Total comprehensive income	_	-	-	4	211	215
Dividends paid (note 26)	_	_	-	-	(156)	(156)
Share-based payments	_	_	_	_	15	15
Cost of shares transferred to employees	_	_	3	_	(8)	(5)
Tax on share-based payments	_	_	_	_	1	1
Reclassification			_	4	(4)	
At 31st March 2019	221	148	(45)	8	1,134	1,466
Impact of adoption of IFRIC 23	-	-	-	-	6	6
At 31st March 2019 (restated)	221	148	(45)	8	1,140	1,472
Profit for the year	-	_	-	-	13	13
Remeasurements of post-employment benefit assets and liabilities	_	_	_	_	89	89
Amounts credited to hedging reserve	_	_	_	2	_	2
Tax on other comprehensive income	-	-	-	-	(20)	(20)
Total comprehensive income	_	-	-	2	82	84
Dividends paid (note 26)	_	_	_	_	(167)	(167)
Share-based payments	_	_	_	_	4	4
Cost of shares transferred to employees	_	_	13	_	(18)	(5)
At 31st March 2020	221	148	(32)	10	1,041	1,388

Accounting policies

for the year ended 31st March 2020

Basis of accounting and preparation - group

The accounts are prepared on a going concern basis in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and interpretations issued by the IFRS Interpretations Committee or the Standing Interpretations Committee (SIC) as adopted by the European Union (EU) and the Companies Act 2006 applicable to companies reporting under IFRS.

COVID-19 has introduced unprecedented uncertainty to the market outlook and, in response to this, we have undertaken extensive reviews of our businesses and projections under a range of potential outcomes. The group has a robust funding position and has tested its performance under a deep recession scenario and stress tested with a more extreme very deep recession scenario. In both scenarios, we have sufficient headroom against committed facilities and key financial covenants in the going concern period (see going concern section on pages 65 and 66).

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 group accounts comprise the accounts of the parent company and 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 recognised 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 recognised in the consolidated accounts at their fair values at the date of acquisition.

Basis of accounting and preparation - parent company

The accounts are prepared on a going concern basis in accordance with Financial Reporting Standard (FRS) 101, Reduced Disclosure Framework, issued in September 2015 and the Companies Act 2006 applicable to companies reporting under FRS 101. The parent company applies the recognition, measurement and disclosure requirements of IFRS as adopted by the EU, but makes amendments where necessary to comply with the Companies Act 2006 and has set out below the FRS 101 disclosure exemptions taken by the parent company:

- the requirements of paragraphs 45(b) and 46 to 52 of IFRS 2, Share-based Payment;
- the requirements of IFRS 7, Financial Instruments: Disclosures;
- the requirements of paragraphs 91 to 99 of IFRS 13, Fair Value Measurement;
- the requirements of the second sentence of paragraph 110 and paragraphs 113(a), 114, 115, 118, 119(a) to (c), 120 to 127 and 129 of IFRS 15, Revenue from Contracts with Customers;
- the requirement in paragraph 38 of IAS 1, Presentation of Financial Statements, to present comparative information in respect of: paragraph 73(e) of IAS 16, Property, Plant and Equipment; and paragraph 118(e) of IAS 38, Intangible Assets;
- the requirements of paragraphs 10(d), 38A, 38B, 40A, 40B, 40C, 40D, 111 and 134 to 136 of IAS 1, Presentation of Financial Statements;
- the requirements of IAS 7, Statement of Cash Flows;
- the requirements of paragraphs 30 and 31 of IAS 8, Accounting Policies, Changes in Accounting Estimates and Errors;
- the requirements of paragraph 17 of IAS 24, Related Party Disclosures;
- the requirements in IAS 24, Related Party Disclosures, to disclose related party transactions entered into between two or more members of a group, provided that any subsidiary which is a party to the transaction is wholly owned by such a member; and
- the requirements of paragraphs 130(f) (ii), 130(f) (iii), 134(d), 134(f) and 135(c) to 135(e) of IAS 36, Impairment of Assets.

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(3) of the Companies Act 2006. Profit for the year is disclosed in the parent company balance sheet and statement of changes in equity.

In the parent company balance sheet, businesses acquired from other group companies are recognised 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.

The parent company prior year comparatives have been restated to increase and decrease current amounts receivable from and payable to subsidiaries by £278 million (see notes 17 and 19).

Accounting policies continued

for the year ended 31st March 2020

Significant accounting policies

The group's and parent company's accounting policies have been applied consistently during the current and prior year, other than where new policies have been adopted (see below). The group's and parent company's significant accounting policies are as follows:

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 the 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 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 recognised in operating profit.

Revenue

Revenue represents income derived from contracts for the provision of goods and services by the parent company and its subsidiaries to customers in exchange for consideration in the ordinary course of the group's activities.

Performance obligations

Upon approval by the parties to a contract, the contract is assessed to identify each promise to transfer either a distinct good or service or a series of distinct goods or services that are substantially the same and have the same pattern of transfer to the customer. Goods and services are distinct and accounted for as separate performance obligations in the contract if the customer can benefit from them either on their own or together with other resources that are readily available to the customer and they are separately identifiable in the contract.

The group typically sells licences to its intellectual property together with other goods and services and, since these licences are not generally distinct in the context of the contract, revenue recognition is considered at the level of the performance obligation of which the licence forms part. Revenue in respect of performance obligations containing bundles of goods and services in which a licence with a sales or usage-based royalty is the predominant item is recognised when sales or usage occur.

Transaction price

At the start of the contract, the total transaction price is estimated as the amount of consideration to which the group expects to be entitled in exchange for transferring the promised goods and services to the customer, excluding sales taxes. Variable consideration, such as trade discounts, is included based on the expected value or most likely amount only to the extent that it is highly probable that there will not be a reversal in the amount of cumulative revenue recognised. The transaction price does not include estimates of consideration resulting from contract modifications until they have been approved by the parties to the contract. The total transaction price is allocated to the performance obligations identified in the contract in proportion to their relative stand-alone selling prices. Many of the group's and parent company's products and services are bespoke in nature and, therefore, stand-alone selling prices are estimated based on cost plus margin or by reference to market data for similar products and services.

Accounting policies continued

for the year ended 31st March 2020

Significant accounting policies (continued)

Revenue (continued)

Revenue recognition

Revenue is recognised as performance obligations are satisfied as control of the goods and services is transferred to the customer.

For each performance obligation within a contract, the group and parent company determine whether it is satisfied over time or at a point in time. Performance obligations are satisfied over time if one of the following criteria is satisfied:

- · the customer simultaneously receives and consumes the benefits provided by the group's and parent company's performance as they perform;
- the group's and parent company's performance creates or enhances an asset that the customer controls as the asset is created or enhanced; or
- the group's and parent company's performance does not create an asset with an alternative use to the group and parent company and they have an enforceable right to payment for performance completed to date.

If the over time criteria are met, revenue is recognised using an input method based on costs incurred to date as a proportion of estimated total contract costs. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised immediately as an expense.

The majority of the metal processed by the group's and parent company's refining businesses is owned by customers and, therefore, revenue is recognised over time on the basis that the group and parent company are enhancing an asset controlled by the customer.

If the over time criteria for revenue recognition are not met, revenue is recognised at the point in time that control is transferred to the customer, which is usually when legal title passes to the customer and the business has the right to payment, for example, 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 or on notification that the goods have been used when they are consignment products located at customers' premises. Most of the group's and parent company's contracts satisfy the point in time criteria.

In the event that the group and parent company enter into bill-and-hold transactions at the specific request of customers, revenue is recognised when the goods are ready for transfer to the customer and when the group and parent company are no longer capable of directing those goods to another use.

Revenue includes sales of precious metal to customers and the precious metal content of products sold to customers.

Linked contracts under which the group and parent company sell or buy precious metal and commit to repurchase or sell the metal in the future are accounted for as finance transactions and no revenue is recognised in respect of the sale leg.

No revenue is recognised by the group or parent company in respect of non-monetary exchanges of precious metal on the basis that the counterparties are in the same line of business.

Consideration payable to customers

Consideration payable to customers in advance of the recognition of revenue in respect of the goods and services to which it relates is capitalised and recognised as a deduction to the revenue recognised upon transfer of the goods and services to the customer.

Costs to fulfil a contract

Contract fulfilment costs in respect of over time contracts are expensed as incurred. Contract fulfilment costs in respect of point in time contracts are accounted for under IAS 2, Inventories.

Contract receivables

Contract receivables represent amounts for which the group and parent company have an unconditional right to consideration in respect of unbilled revenue recognised at the balance sheet date.

Contract liabilities

Contract liabilities represent the obligation to transfer goods or services to a customer for which consideration has been received, or consideration is due, from the customer.

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.

Accounting policies continued

for the year ended 31st March 2020

Significant accounting policies (continued)

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 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 is 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:

- freehold buildings 30 years;
- leasehold improvements life of the lease (or estimated useful life if shorter); and
- plant and machinery 4 to 10 years.

Freehold land is not depreciated.

Goodwill and other intangible assets

Goodwill arises on the acquisition of a business when the fair value of the consideration 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, therefore, 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 are stated at cost less accumulated amortisation and any provisions for impairment. Customer contracts are amortised when the relevant income stream occurs. 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:

- customer contracts and relationships 1 to 15 years;
- capitalised computer software 3 to 10 years;
- patents, trademarks and licences 3 to 20 years;
- acquired research and technology 4 to 10 years; and
- capitalised development currently being amortised 3 to 8 years.

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, the investment in that subsidiary is assessed for an indication of impairment.

Leases - accounting policy applied since 1st April 2019

Leases are recognised as a right-of-use asset, together with a corresponding lease liability, at the date at which the leased asset is available for use.

The right-of-use asset is initially measured at cost, which comprises the initial value of the lease liability, lease payments made (net of any incentives received from the lessor) before the commencement of the lease, initial direct costs and restoration costs. The right-of-use asset is depreciated on a straight-line basis over the shorter of the asset's useful life and the lease term in operating profit.

The lease liability is initially measured as the present value of future lease payments discounted using the interest rate implicit in the lease or, where this rate is not determinable, the group's incremental borrowing rate, which is the interest rate the group would have to pay to borrow the amount necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions. Interest is charged to finance costs at a constant rate of interest on the outstanding lease liability over the lease term.

Payments in respect of short term leases, low-value leases and precious metal leases are charged to the income statement on a straight-line basis over the lease term in operating profit.

The group leases precious metals to fund temporary peaks in metal requirements provided market conditions allow. These leases are from banks for specified periods (less than 12 months) and the group pays a fee which is expensed on a straight-line basis over the lease term in finance costs. The group holds sufficient precious metal inventories to meet all the obligations under these lease arrangements as they fall due.

Accounting policies continued

for the year ended 31st March 2020

Significant accounting policies (continued)

Leases - accounting policy applied until 31st March 2019

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.

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 the group pays a fee which is expensed on a straight-line basis over the lease term in finance costs. The group holds sufficient precious metal inventories to meet all the obligations under these lease arrangements as they fall due.

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

Inventories

Precious metal

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 is valued at the price at which it is contractually committed, 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

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.

Cash and cash equivalents

Cash and deposits comprise cash at bank and in hand and short term deposits with a maturity date of three months or less from the date of acquisition. Money market funds comprise investments in funds that are subject to an insignificant risk of changes in fair value. 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 policies and, therefore, cash and cash equivalents include cash and deposits, money market funds and bank overdrafts. Offset arrangements across group businesses have been applied to arrive at the net cash and overdraft figures.

Financial instruments

Investments and other financial assets

The group and parent company classify their financial assets in the following measurement categories:

- those measured at fair value either through other comprehensive income or through profit or loss; and
- those measured at amortised cost.

At initial recognition, the group and parent company measure financial assets at fair value plus, in the case of financial assets not measured at fair value through profit or loss, transaction costs that are directly attributable to their acquisition.

The group and parent company subsequently measure equity investments at fair value and have elected to present fair value gains and losses on equity investments in other comprehensive income. There is, therefore, no subsequent reclassification of cumulative fair value gains and losses to profit or loss following disposal of the investments.

The group and parent company subsequently measure trade and other receivables and contract receivables at amortised cost, with the exception of trade receivables that have been designated as at fair value through other comprehensive income because the group has certain operations with business models to hold trade receivables for collection or sale. All other financial assets, including short term receivables, are measured at amortised cost less any impairment provision.

For trade and contract receivables, the group and parent company apply the simplified approach permitted by IFRS 9, Financial Instruments, which requires expected lifetime losses to be recognised from initial recognition.

Accounting policies continued

for the year ended 31st March 2020

Significant accounting policies (continued)

Financial instruments (continued)

Derivative financial instruments

The group and parent company use derivative financial instruments, in particular forward currency contracts, currency swaps, interest rate swaps and commodity derivatives 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. For currency swaps designated as instruments in cash flow or net investment hedging relationships, the impact from currency basis spreads is included in the hedge relationship and may be a source of ineffectiveness recognised in the income statement. Derivative financial instruments which are not designated as hedging instruments are classified as at fair value through profit or loss, but are used to manage financial risk. 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. The vast majority of forward precious metal price contracts are entered into and held for the receipt or delivery of precious metal and, therefore, are not recorded at fair value.

Cash flow hedges

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 or the hedge no longer meets the criteria for hedge accounting, 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. If a forward precious metal price contract will be settled net in cash, it is designated and accounted for as a cash flow hedge.

Fair value hedges

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 or the hedge no longer meets the criteria for hedge accounting.

Net investment hedges

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.

Financial liabilities

Borrowings are measured at amortised cost. Those borrowings designated as being in fair value hedge relationships are remeasured for the fair value changes in respect of the hedged risk with these changes recognised in the income statement. All other financial liabilities, including short-term payables, are measured at amortised cost.

Precious metal sale and repurchase agreements

The group and parent company undertake linked contracts to sell or buy precious metal and commit to repurchase or sell the metal in the future. An asset representing the metal which the group and parent company have committed to sell or a liability representing the obligation to repurchase the metal are recognised in trade and other receivables or trade and other payables, respectively.

Accounting policies continued

for the year ended 31st March 2020

Significant accounting policies (continued)

Taxation

Current and deferred tax are recognised in the income statement, except when they relate to items recognised directly in equity, in which case 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 amounts 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.

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 restructuring. Otherwise, material contingent liabilities are disclosed unless the probability of 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.

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

The fair value of shares awarded to employees under the performance share plan, restricted share plan, long term incentive plan and deferred bonus 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 performance 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.

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. Assets are measured at their fair value at the balance sheet date. Liabilities are measured at present value using the projected unit credit method and a discount rate reflecting yields on high quality corporate bonds. 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 financial and demographic assumptions, are recognised in other comprehensive income.

Sources of estimation uncertainty

Determining the carrying amounts of certain assets and liabilities at the balance sheet date requires estimation of the effects of uncertain future events. In the event that actual outcomes differ from those estimated, there may be an adjustment to the carrying amounts of those assets and liabilities within the next financial year. COVID-19 has introduced unprecedented uncertainty to the market outlook and, therefore, has increased the risk of material adjustment to the group's and parent company's financial position during the year ending 31st March 2021, particularly in respect of the carrying value of goodwill, other intangibles and other assets. Other significant risks of material adjustment are the valuation of the liabilities of the defined benefit pension plans and tax provisions. The group and parent company have considered the refining process and stock takes and provisions and contingent liabilities and, whilst not deemed to represent a significant risk of material adjustment to the group's and parent company's financial position during the year ending 31st March 2021, represent important accounting estimates.

Accounting policies continued

for the year ended 31st March 2020

Sources of estimation uncertainty (continued)

Goodwill, other intangibles and other assets

The group and parent company have significant intangible assets from both business acquisitions and investments in new products and technologies. Some of those acquisitions and investments are at an early stage of commercial development and, therefore, carry a greater risk that they will not be commercially viable. Goodwill and intangible assets not yet ready for use are not amortised, but are subject to annual impairment reviews. Other intangible assets are amortised from the time they are first ready for use and, together with other assets, are assessed for impairment when there is a triggering event that provides evidence that they are impaired.

The impairment reviews require the use of estimates of future profit and cash generation based on financial budgets and plans approved by management, generally covering a three-year period, and the pre-tax discount rates used in discounting projected cash flows.

The impact of COVID-19 on the carrying value of the following assets has been considered:

- **Goodwill** The budgets and plans used for the impairment reviews reflect management's estimate of the impact of COVID-19, which is a deep recession involving a period of lower demand followed by an extended recovery period. Whilst headroom has reduced under this scenario, no goodwill impairments have been identified as a direct result of the lower cash flow forecasts. A description of the group's approach to impairment testing and key assumptions, together with sensitivity analysis, is set out in note 10 to the accounts. Goodwill in respect of the Battery Materials LFP business in the New Markets sector has been impaired as a result of a decline in sales during the year and the refocusing of our LFP business (see note 3).
- **Property, plant and equipment** As a result of COVID-19, most of the manufacturing plants in the Clean Air sector outside China were temporarily closed in March 2020, which represents a triggering event that could indicate that they are impaired. The plants have been tested for impairment based on discounted cash flows consistent with our deep recession scenario and, with the exception of three plants which have been impaired as a result of the optimisation of the manufacturing footprint in the Clean Air sector (see note 3), their carrying values are not considered to be impaired (see note 9).
- Trade and contract receivables The group applies the simplified approach to measuring expected credit losses under IFRS 9, Financial Instruments, which requires lifetime expected credit losses to be recognised from initial recognition for trade and contract receivables. A provision matrix is used to calculate lifetime expected credit losses using historical loss rates based on days past due and a broad range of forward-looking information, including country and market growth forecasts. Whilst the group has not experienced significant losses on its trade and contract receivables in the past and has not identified any significant bad debts as a result of the economic slowdown caused by COVID-19, the risk that the group will incur bad debt losses in the future has increased. A high proportion of the group's trade and contract receivables are in the Clean Air sector. Although the Clean Air sector has a wide range of customers, the concentrated nature of the automotive industry means that amounts owed by individual customers can be large and, in the event that one of those customers experiences financial difficulty, there could be a material adverse impact on the group. Expected credit loss provisions on unimpaired trade and contract receivables have been increased, by £18 million, to £21 million (see note 27).
- Advance payments to customers The Clean Air sector makes upfront payments to original equipment manufacturers to secure the award
 of future business. At 31st March 2020, the group held £66 million of advance payments as prepayments (31st March 2019: £26 million),
 which remain expected to be recovered either through new business based on our volume forecasts as updated for the impact of COVID-19,
 repayment or reallocation against other future business (see note 17).

Post-employment benefits

The group's and parent company's defined benefit plans are assessed annually by qualified independent actuaries. The estimate of the liabilities of the plans is based on a number of actuarial assumptions.

There is a range of possible values for each actuarial assumption and the point within that range is estimated to most appropriately reflect the group's and parent company's circumstances. Small changes in these assumptions can have a significant impact on the estimate of the liabilities of the plans. A description of those discount rate and inflation assumptions, together with sensitivity analysis, is set out in note 24 to the group and parent company accounts.

Tax provisions

Tax provisions are determined based on the tax laws and regulations that apply in each of the jurisdictions in which the group operates. Tax provisions are recognised where the impact of those laws and regulations is unclear and it is probable that there will be a tax adjustment representing a future outflow of funds to a tax authority or a consequent adjustment to the carrying value of a tax asset.

Provisions are measured using the best estimate of the most likely amount, being the most likely amount in a range of possible outcomes. The resolution of tax positions taken by the group can take a considerable period of time to conclude and, in some cases, it is difficult to predict the outcome. Group current tax liabilities at 31st March 2020 of £106 million (2019: £130 million) include tax provisions of £106 million (2019: £102 million) and the estimation of the range of possible outcomes is an increase in those liabilities by £106 million (2019: £60 million) to a decrease of £90 million (2019: £61 million). The increase in the range of possible outcomes is mainly due to the consideration of a larger number of potential outcomes following the adoption of IFRIC 23. The estimates made reflect where the group: faces routine tax audits or is in ongoing disputes with tax authorities; has identified potential tax exposures relating to transfer pricing; or is contesting the tax deductibility of certain business costs.

Accounting policies continued

for the year ended 31st March 2020

Sources of estimation uncertainty (continued)

Refining process and stock takes

The group's and parent company's refining businesses process significant quantities of precious metal and there are uncertainties regarding the actual amount of metal in the refining system at any one time. The group's refining businesses process over four million ounces of platinum group metals per annum with a market value of around £8.4 billion. The majority of metal processed is owned by customers and the group and parent company must return pre-agreed quantities of refined metal based on assays of starting materials and other contractual arrangements, such as the timing of the return of metal. The group and parent company calculate the profits or losses of their refining operations based on estimates, including the extent to which process losses are expected during refining. The risk of process losses or gains depends on the nature of the starting material being refined, the specific refining processes applied, the efficiency of those processes and the contractual arrangements.

Stock takes are performed to determine the volume and value of metal within the refining system compared with the calculated estimates, with the variance being a profit or a loss. Stock takes are, therefore, a key control in the assessment of the accuracy of the profit or loss of refining operations. Whilst refining is a complex, large-scale industrial process, the group and parent company have appropriate processes and controls over the movement of material in their refineries.

Provisions and contingent liabilities

The group is involved in various disputes and claims which arise from time to time in the course of its business including, for example, in relation to commercial matters, product quality or liability, employee matters and tax audits. The group is also involved from time to time in the course of its business in legal proceedings and actions, engagement with regulatory authorities and in dispute resolution processes. These are reviewed on a regular basis and, where possible, an estimate is made of the potential financial impact on the group. In appropriate cases a provision is recognised based on advice, best estimates and management judgement. Where it is too early to determine the likely outcome of these matters, no provision is made. Whilst the group cannot predict the outcome of any current or future such matters with any certainty, it currently believes the likelihood of any material liabilities to be low, and that such liabilities, if any, will not have a material adverse effect on its consolidated income, financial position or cash flows. Provisions and contingent liabilities are set out in notes 22 and 31, respectively.

Judgements made in applying accounting policies

The group and parent company use precious metal owned by customers in their production processes. It has been determined that this metal is not controlled by the group or parent company and, therefore, it is not recognised on the balance sheet.

The group and parent company manage precious metal inventories by entering into physically settled forward sales and purchases of metal positions in line with a well established hedging policy. The own use exemption has been adopted for these transactions and, therefore, the group and parent company do not fair value such physically settled contracts.

The group undertakes linked contracts to sell or buy precious metal and commits to repurchase or sell the metal in the future to manage inventory levels. Accordingly, principal cash flows in respect of sale and repurchase agreements are shown as cash flows from operating activities in the cash flow statement rather than cash flows from financing activities. Interest paid and received are shown as cash flows from financing and investing activities, respectively.

In the course of preparing the accounts, no other judgements have been made in the process of applying the group's and parent company's accounting policies, other than those involving estimations, that have had a significant effect on the amounts recognised in the accounts.

Changes in accounting policies

IFRS 16, Leases

IFRS 16 became applicable to the group and parent company on 1st April 2019 and the group and parent company changed their accounting policies as a result of adopting the new standard. The impact of the adoption of IFRS 16 is disclosed in note 34.

IFRIC 23, Uncertainty over Income Tax Treatments

IFRIC 23 became applicable to the group and parent company on 1st April 2019. The interpretation clarifies how to recognise and measure current and deferred income tax assets and liabilities where there is uncertainty over a tax treatment. The group and parent company have adopted IFRIC 23 retrospectively, with the cumulative effect of adoption, a £5 million and £6 million decrease in tax provisions (including interest), respectively, recognised in reserves at 1st April 2019.

Accounting policies continued

for the year ended 31st March 2020

Changes in accounting policies (continued)

Amendments to IFRS 9, IAS 39 and IFRS 7 - Interest rate benchmark reform

The group and parent company have early adopted the amendments to IFRS 9, Financial Instruments, IAS 39, Financial Instruments: Recognition and Measurement, and IFRS 7, Financial Instruments: Disclosures, which relate to interbank offered rates (IBOR) reform and were endorsed by the EU on 6th January 2020. The replacement of benchmark interest rates, such as LIBOR and other IBOR, is a priority for global regulators. The amendments provide relief from applying specific hedge accounting requirements to hedge relationships directly affected by IBOR reform and have the effect that IBOR reform should generally not cause hedge accounting to terminate. There is no financial impact from the early adoption of these amendments.

The group has one IFRS 9 designated hedge relationship that is potentially impacted by IBOR reform: the 3.26% \$150 million Bonds 2022 which have been swapped into floating rate US dollars. This swap references six-month US dollar LIBOR and uncertainty arising from the group's exposure to IBOR reform will cease when the swap matures in 2022. The implications on the wider business of IBOR reform will be assessed during the year.

Other amendments to accounting standards

The following amendments to existing standards were applicable to the group and parent company from 1st April 2019, but did not have a significant effect on their reported results or net assets:

- Amendments to IFRS 9: Prepayment Features with Negative Compensation;
- Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures;
- Amendments to IAS 19: Plan Amendment, Curtailment or Settlement; and
- Annual Improvements to IFRS Standards 2015–2017 Cycle.

Amendments to accounting standards that have been issued, but are not yet effective

The following amendments to existing standards are applicable to the group from 1st April 2020, but are not expected to have a significant effect on its reported results or net assets:

- Amendments to References to the Conceptual Framework in IFRS Standards; and
- Amendments to IAS 1 and IAS 8: Definition of Material.

Non-GAAP measures

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. The group's non-GAAP measures are defined and reconciled to GAAP measures in note 35.

Notes on the accounts

for the year ended 31st March 2020

1 Segmental information

The group has four operating sectors, Clean Air, Efficient Natural Resources, Health and New Markets, and a corporate headquarters that retains certain costs that have not been allocated to the operating sectors. The Group Management Committee (the chief operating decision maker as defined by IFRS 8, Operating Segments) monitors the results of these operating sectors to assess performance and make decisions about the allocation of resources. Each operating sector is represented by a member of the Group Management Committee. These operating sectors represent the group's reportable segments and their principal activities are described on pages 54 to 60. The performance of the group's operating sectors is assessed on sales and underlying operating profit (see note 35). Sales between segments are made at market prices, taking into account the volumes involved.

Revenue, sales and underlying operating profit by sector

Year ended 31st March 2020	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Corporate £ million	Eliminations £ million	Total £ million
Revenue from external customers Inter-segment revenue	6,172 1	7,670 4,291	229 -	506 6	- -	- (4,298)	14,577 -
Revenue	6,173	11,961	229	512	-	(4,298)	14,577
External sales Inter-segment sales	2,617 1	945 134	223 -	385 4	-	- (139)	4,170 -
Sales ¹	2,618	1,079	223	389	-	(139)	4,170
Underlying operating profit ¹	295	256	27	(1)	(38)	-	539

Year ended 31st March 2019	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Corporate £ million	Eliminations £ million	Total £ million
Revenue from external customers Inter-segment revenue	4,948 210	5,074 2,608	259	464 9	-	- (2,827)	10,745
Revenue	5,158	7,682	259	473	_	(2,827)	10,745
External sales	2,719	880	256	359	_	_	4,214
Inter-segment sales	1	111	1	3	_	(116)	_
Sales ¹	2,720	991	257	362	_	(116)	4,214
Underlying operating profit ¹	393	181	43	2	(53)	_	566

¹ Sales and underlying operating profit are non-GAAP measures (see note 35). Underlying operating profit excludes profit or loss on disposal of businesses, gain or loss on significant legal proceedings, together with associated legal costs, amortisation of acquired intangibles and major impairment and restructuring charges.

Notes on the accounts continued

for the year ended 31st March 2020

1 Segmental information (continued)

Impact of exchange rate movements on sales and underlying operating profit by sector

The main impact of exchange rate movements on sales and underlying operating profit is from the translation of the results of foreign operations into sterling.

Average exchange rates		2020	2019
US dollar / £ Euro / £ Chinese renminbi / £		1.271 1.143 8.85	1.310 1.134 8.81
Year ended 31st March 2020 £ million	Year ended 31 At last year's rates £ million	st March 2019 At this year's rates £ million	Change at this year's rates %
Clean Air 2,618 Efficient Natural Resources 1,079 Health 223 New Markets 389 Inter-segment sales (139)	2,720 991 257 362 (116)	2,739 1,002 262 363 (116)	-4 +8 -15 +7
Sales ¹ 4,170	4,214	4,250	-2
Clean Air 295 Efficient Natural Resources 256 Health 27 New Markets (1) Corporate (38)		395 183 44 3 (54)	-25 +40 -38 n/a
Underlying operating profit ¹ 539	566	571	-6

Reconciliation from underlying operating profit to operating profit by sector

Year ended 31st March 2020	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Corporate £ million	Total £ million
Underlying operating profit ¹	295	256	27	(1)	(38)	539
Profit on disposal of businesses	_	_	-	_	2	2
Amortisation of acquired intangibles	(3)	(6)	-	(4)	_	(13)
Major impairment and restructuring charges	(56)	-	(17)	(57)	(10)	(140)
Operating profit	236	250	10	(62)	(46)	388

Year ended 31st March 2019	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Corporate £ million	Total £ million
Underlying operating profit ¹	393	181	43	2	(53)	566
Loss on disposal of businesses	_	_	-	(12)	_	(12)
Loss on significant legal proceedings	_	_	-	_	(17)	(17)
Amortisation of acquired intangibles	(3)	(6)	-	(5)	_	(14)
Major impairment and restructuring charges	_	-	7	_	1	8
Operating profit	390	175	50	(15)	(69)	531

¹ Sales and underlying operating profit are non-GAAP measures (see note 35). Underlying operating profit excludes profit or loss on disposal of businesses, gain or loss on significant legal proceedings, together with associated legal costs, amortisation of acquired intangibles and major impairment and restructuring charges.

Notes on the accounts continued

for the year ended 31st March 2020

1 Segmental information (continued)

Other segmental information

Year ended 31st March 2020 Segmental net assets	Clean Air £ million 1,361	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Corporate ¹ £ million	Total £ million
Net debt (note 35) Post-employment benefit net assets and liabilities Deferred tax net liabilities Provisions and non-current other payables Investments in joint venture and associate		3,23				(1,094) 213 (8) (26) 23
Net assets					-	2,824
Property, plant and equipment Intangible assets	188	73 3	19 13	52 13	19 85	351 114
Capital expenditure	188	76	32	65	104	465
Depreciation Amortisation Impairment losses	64 5 55	48 9 1	21 1 18	12 4 66	9 5 6	154 24 146
Total	124	58	40	82	20	324

¹ The increase in Corporate net assets includes purchases of computer hardware and software to upgrade the group's core IT systems.

Impairment losses include the following:

- £61 million in respect of three manufacturing plants in the Clean Air sector, comprising intangible assets in Corporate (£6 million) and property, plant and equipment in Clean Air (£55 million) (see note 3);
- £57 million in respect of the Battery Materials LFP business in the New Markets sector, comprising goodwill (£7 million), intangible assets (£5 million), property, plant and equipment (£35 million), right-of-use assets (£1 million) and trade and other receivables (£9 million) (see note 3);
- £20 million in respect of development expenditure which had been capitalised in respect of terminated molecules in the Health sector (see note 3); and
- £8 million in respect of the discontinued Battery Materials eLNO demonstration plants in the New Markets sector (see note 9).

Notes on the accounts continued

for the year ended 31st March 2020

1 Segmental information (continued)

Other segmental information (continued)

Year ended 31st March 2019	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Corporate £ million	Total £ million
Segmental net assets	1,339	1,243	496	235	108	3,421
Net debt (note 35) Post-employment benefit net assets and liabilities Deferred tax net liabilities Provisions and non-current other payables Investments in joint venture and associate						(866) 103 (33) (34) 20
Net assets					=	2,611
Property, plant and equipment Intangible assets	124	49 4	18 11	35 13	9 60	235 88
Capital expenditure	124	53	29	48	69	323
Depreciation Amortisation Impairment (reversals) / losses	64 8 -	45 10 (2)	18 1 (7)	9 5 2	6 5 -	142 29 (7)
Total	72	53	12	16	11	164

2 Revenue

Products and services

The group's principal products and services by operating sector and sub-sector are disclosed in the table below, together with information regarding performance obligations and revenue recognition. Revenue is recognised by the group as contractual performance obligations to customers are completed.

Sector	Sub-sector	Primary industry	Principal products and services	Principal performance obligations	Revenue recognition
Clean Air	Light Duty Catalysts	Automotive	Catalysts for cars and other light duty vehicles	Point in time	On despatch or delivery
	Heavy Duty Catalysts	Automotive	Catalysts for trucks, buses and non-road equipment	Point in time	On despatch or delivery
Efficient Natural Resources	Catalyst Technologies	Chemicals / oil and gas	Speciality catalysts and additives Process technology licences	Point in time Over time	On despatch or delivery Based on costs incurred or straight-line over the licence term ¹
			Engineering design services	Over time	Based on costs incurred
	Platinum Group Metal Services	Various	Platinum Group Metal refining and recycling services	Over time	Based on costs incurred
			Other precious metal products	Point in time	On despatch or delivery
			Platinum Group Metal chemical and industrial products	Point in time	On despatch or delivery
	Advanced Glass Technologies	Automotive	Precious metal pastes and enamels	Point in time	On despatch or delivery
	Diagnostic Services	Oil and gas	Detection, diagnostic and measurement solutions	Over time	Based on costs incurred
Health	Generics	Pharmaceuticals	Manufacture of active pharmaceutical ingredients	Point in time	On despatch or delivery
	Innovators	Pharmaceuticals	Development and manufacture of active pharmaceutical ingredients	Over time	Based on costs incurred
New Markets	Alternative Powertrain	Automotive	Battery materials and fuel cell technologies	Point in time	On despatch or delivery
		Consumer goods	Battery systems for a range of applications	Point in time	On despatch or delivery
	Medical Device Components	Pharmaceuticals	Products found in devices used in medical procedures	Point in time	On despatch or delivery
	Life Science Technologies	Pharmaceuticals / agriculture	Advanced catalysts	Point in time	On despatch or delivery

 $^{^{\}rm 1}$ $\,$ Revenue recognition depends on whether the licence is distinct in the context of the contract.

Efficient

Notes on the accounts continued

for the year ended 31st March 2020

2 Revenue (continued)

Revenue from external customers by principal products and services

Clean Air £ million	Natural Resources £ million	Health £ million	New Markets £ million	Total £ million
3,555	6,725	6	121	10,407
831	_	-	_	831
1,742	-	-	_	1,742
_	513	-	_	513
_	298	-	_	298
_	70	-	_	70
_	64	-	_	64
_	-	134	_	134
_	-	89	_	89
_	-	-	237	237
_	-	-	71	71
_	-	-	47	47
44	-	-	30	74
6,172	7,670	229	506	14,577
	£ million 3,555 831 1,742	Clean Air	Clean Air Resources Health Emillion Emillion Emillion Emillion	Clean Air £ million Natural Resources £ million Health £ million New Markets £ million 3,555 6,725 6 121 831 - - - 1,742 - - - - 513 - - - 298 - - - 70 - - - 64 - - - - 134 - - - 89 - - - - 237 - - - 47 44 - - 30

Year ended 31st March 2019	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Total £ million
Metal	2,229	4,194	3	105	6,531
Heavy Duty Catalysts	938	_	_	_	938
Light Duty Catalysts	1,737	_	_	_	1,737
Catalyst Technologies	_	504	_	_	504
Platinum Group Metal Services	_	233	-	_	233
Advanced Glass Technologies	_	75	-	_	75
Diagnostic Services	_	68	-	_	68
Generics	_	_	171	-	171
Innovators	_	_	85	-	85
Alternative Powertrain	_	_	-	206	206
Medical Device Components	_	_	-	70	70
Life Science Technologies	_	_	-	46	46
Other	44	_	_	37	81
Revenue	4,948	5,074	259	464	10,745

Notes on the accounts continued

for the year ended 31st March 2020

2 Revenue (continued)

Revenue from external customers by point in time and over time performance obligations

Year ended 31st March 2020	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Total £ million
Revenue recognised at a point in time Revenue recognised over time	6,172	7,361 309	165 64	502 4	14,200 377
Revenue	6,172	7,670	229	506	14,577
Year ended 31st March 2019	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Total £ million
Revenue recognised at a point in time Revenue recognised over time	4,948	4,869 205	233 26	464	10,514 231
Revenue	4,948	5,074	259	464	10,745

Geographical analysis of revenue from external customers and non-current assets

The group's country of domicile is the UK. Revenue from external customers based on the customer's location and non-current assets based on the location of the assets are disclosed below.

	Reven external	Non-current assets		
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
UK	3,275	1,838	1,007	924
Germany	1,422	1,252	271	266
Rest of Europe	2,125	1,869	366	257
USA	2,750	2,567	483	440
Rest of North America	477	205	48	32
China (including Hong Kong)	2,182	1,199	224	183
Rest of Asia	1,288	1,267	148	124
Rest of World	1,058	548	6	18
		_	2,553	2,244
Investments at fair value through other comprehensive income			49	52
Interest rate swaps			34	13
Deferred tax assets			66	58
Post-employment benefit net assets			317	209
Total	14,577	10,745	3,019	2,576

Major customers

The group received £1.8 billion of revenue from one external customer in the Clean Air sector which represents more than 10% of the group's revenue from external customers during the year ended 31st March 2020 (2019: £1.5 billion of revenue from one external customer in the Clean Air sector).

Unsatisfied performance obligations

At 31st March 2020, for contracts that had an original expected duration of more than one year, the group had unsatisfied performance obligations of £397 million (2019: £323 million), representing contractually committed revenue to be recognised at a future date. Of this amount, £88 million (2019: £38 million) is expected to be recognised within one year and £309 million (2019: £285 million) is expected to be recognised after one year.

Payment terms

The group and parent company supply goods and services on payment terms that are consistent with those standard across the industry and do not have any contracts with a material financing component. Where revenue is recognised over time, payment terms are generally consistent with the timeframe over which revenue is recognised.

Notes on the accounts continued

for the year ended 31st March 2020

3 Operating profit

	2020 £ million	2019 £ million
Operating profit is arrived at after charging / (crediting):		
Total research and development expenditure Less: Development expenditure capitalised	199 (23)	190 (19)
Research and development expenditure charged to the income statement Less: External funding received – from governments – from other organisations	176 (13) (1)	171 (12) (2)
Net research and development expenditure charged to the income statement	162	157
Inventories recognised as an expense Write-down of inventories recognised as an expense Reversal of write-down of inventories from increases in net realisable value Net (gains) / losses on foreign exchange Net losses / (gains) on foreign currency forwards at fair value through profit or loss Past service credit	12,585 70 (17) (17) 24 (20)	8,715 25 (5) 10 (6) (9)
Depreciation of property, plant and equipment Depreciation of right-of-use assets	140 14	142
Depreciation	154	142
Amortisation of internally generated intangible assets included in cost of sales Amortisation of other intangible assets included in – cost of sales – distribution costs – administrative expenses – amortisation of acquired intangibles	3 1 1 7 12	6 2 1 6
Amortisation	24	29
Impairment losses / (reversals) included in administrative expenses: - other intangible assets - property, plant and equipment	1 9	- 2 (2)
 borrowings and related swaps Impairment losses included in amortisation of acquired intangibles: other intangible assets 	1	(2)
Impairment losses / (reversals) included in major impairment and restructuring charges: - goodwill - other intangible assets - property, plant and equipment - right-of-use assets - inventories - trade and other receivables	7 31 90 1 (3) 9	- (7) - -
Impairment losses / (reversals)	146	(7)
	2020 £ million	2019 £ million
Fees payable to the company's auditor and its associates for:		
The audit of these accounts The audit of the accounts of the company's subsidiaries	1.2 2.2	0.9 1.7
Total audit fees¹	3.4	2.6
Audit-related assurance services Other services	0.2 0.4	0.2 0.3
Total non-audit fees	0.6	0.5
Total fees payable to the company's auditor and its associates	4.0	3.1

¹ 2019 excludes overruns of £0.9 million.

No audit fees were paid to other auditors (2019: £nil).

Other non-audit services predominantly comprise immigration services.

Notes on the accounts continued

for the year ended 31st March 2020

3 Operating profit (continued)

The following items are shown separately on the face of the income statement:

- **Profit or loss on disposal of businesses** The group released a residual provision for environmental liabilities of £2 million which had originally been recognised in respect of the disposal of Johnson Matthey Gold and Silver Refining Holdings in March 2015. The time limit on claims was five years and no claims have been received. In the prior year, the group sold its water disinfection business, Miox. After costs, the net proceeds were £2 million which resulted in a loss on sale of £12 million.
- Gain or loss on significant legal proceedings In April 2019, the group paid £17 million in respect of a settlement with a customer on mutually acceptable terms with no admission of fault relating to failures in certain engine systems for which it supplied a component in the US. The settlement was recognised in the prior year on the basis that it confirmed that the group had a present obligation at the prior year end.
- Amortisation of acquired intangibles Amortisation and impairment of intangible assets which arose on the acquisition of businesses totalled £13 million (2019: £14 million).
- Major impairment and restructuring charges The group recognised the following impairments during the year:
 - Clean Air manufacturing plants Investment in new manufacturing plants in Europe and Asia has allowed the Clean Air sector to consolidate its existing capacity into new, more efficient plants. Specifically, we plan to restructure three of our manufacturing plants. As a result, the carrying value of one of the plants has been impaired, by £42 million to £24 million, based on a fair value less costs of disposal assessment, with our assessment of the market value of the plant based on internal data (level 3 inputs see note 28 for the fair value hierarchy). The other two plants have been impaired by £17 million to £3 million and by £2 million to £nil based on a value in use assessment, with discount rates of 13% and 38%, respectively. The impairment comprises intangible assets (£6 million) and property, plant and equipment (£55 million).
 - Battery Materials LFP business We are focusing our science and innovative solutions on cathode materials that are truly market leading, principally eLNO, our ultra-high energy density cathode material and, in addition, our higher performing lithium iron phosphate (LFP). Sales of LFP declined during the year and we are now refocusing our LFP business on the high value segment of the market to better support our eLNO customers and the development of that business. These changes mean that the carrying value of the Battery Materials LFP cash-generating unit has been impaired, by £57 million, to £3 million based on a value in use assessment. The impairment comprises goodwill (£7 million), intangible assets (£5 million), property, plant and equipment (£35 million), right-of-use assets (£1 million) and trade and other receivables (£9 million). The recoverable amount of £3 million reflects residual working capital balances. The discount rate for the purposes of the value in use assessment was 10.7% (2019: 11.9%).
 - Health capitalised development expenditure During the year, a fundamental review of the Health sector's new product introduction process was undertaken to determine how the business will deliver its strategic plan. The organisation was restructured and new employees were recruited to strengthen the sector's technical capabilities. A detailed review of each molecule was performed which considered all assumptions, including market size, number of competitors, molecular process design and technical feasibility. The assessment resulted in the determination to reprioritise the molecules in the pipeline, focusing on the optimal number of projects to sustain a consistent and predictable new product launch process. Consequently, the development of 21 molecules in the pipeline has been terminated. Development expenditure which had been capitalised in respect of the terminated molecules totalling £20 million has been written off during the year. With a focus on fewer molecules, we have made further progress towards delivering an additional circa £100 million of operating profit from our pipeline of generic and innovator active pharmaceutical ingredients.

In addition to the impairments recognised during the year, consultancy costs of £5 million were incurred in respect of the major restructuring initiatives announced in June 2020 and a write off of inventories of £3 million recognised in the Health sector as part of the group's operational efficiency programme announced in March 2017 was released.

In the prior year, £7 million of a prior year impairment of the Health sector's Riverside site was reversed and, in September 2019, the site was sold, with no gain or loss on disposal.

2020

2010

Notes on the accounts continued

for the year ended 31st March 2020

4 Employee information

Employee numbers

	2020	2019
Clean Air	6,087	5,679
Efficient Natural Resources	3,981	3,602
Health	878	879
New Markets	1,927	1,855
Corporate	1,066	973
Monthly average number of employees	13,939	12,988

The number of temporary employees included above at 31st March 2020 is 583 (2019: 526).

The monthly average number of employees in the parent company is 3,020 (2019: 2,965).

	At 31st March 2020			At 31st March 2019		
	Actual employees	Agency staff	Total headcount	Actual employees	Agency staff	Total headcount
Clean Air	6,226	458	6,684	5,919	629	6,548
Efficient Natural Resources	3,988	134	4,122	3,645	163	3,808
Health	907	8	915	858	8	866
New Markets	1,952	381	2,333	1,934	343	2,277
Corporate	1,079	219	1,298	1,043	253	1,296
Year-end headcount	14,152	1,200	15,352	13,399	1,396	14,795

Employee costs

	Group		Parent company	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Wages and salaries	621	593	187	192
Social security costs	68	64	19	20
Post-employment costs	49	56	38	30
Share-based payments	5	17	4	15
Termination benefits	2	1	1	_
Employee benefits expense	745	731	249	257

5 Net finance costs

	2020 £ million	£ million
Net loss on remeasurement of foreign currency swaps held at fair value through profit or loss Interest payable on financial liabilities held at amortised cost and interest on related swaps Interest payable on other liabilities¹ Interest payable on lease liabilities	(5) (43) (144) (3)	(1) (37) (69)
Total finance costs	(195)	(107)
Interest receivable on financial assets held at amortised cost Interest receivable on other assets ¹ Interest on post-employment benefits	4 103 2	3 58 3
Total finance income	109	64
Net finance costs	(86)	(43)

¹ Interest payable and receivable on other liabilities and assets mainly comprises interest on precious metal leases and the amortisation of contango and backwardation on precious metal inventory and sale and repurchase agreements.

Notes on the accounts continued

for the year ended 31st March 2020

6 Tax expense

	2020 £ million	2019 £ million
Current tax Corporation tax on profit for the year Benefit from previously unrecognised tax losses, tax credits or temporary differences Adjustment for prior years	101 (2) (3)	84 - (7)
Total current tax	96	77
Deferred tax Origination and reversal of temporary differences Tax rate adjustments Recognition of previously unrecognised deferred tax assets Adjustment for prior years	(37) 3 (10) (2)	6 (1) (5) (2)
Total deferred tax	(46)	(2)
Tax expense	50	75

The tax expense can be reconciled to profit before tax in the income statement as follows:

	2020 £ million	2019 £ million
Profit before tax	305	488
Tax expense at UK corporation tax rate of 19% (2019: 19%) Effects of:	58	93
Overseas tax rates	(7)	2
Expenses not deductible for tax purposes Losses and other temporary differences not recognised	3 21	3 7
Recognition or utilisation of previously unrecognised tax assets	(10)	(6)
Adjustment for prior years Patent box / Innovation box	(5) (19)	(9) (19)
Other tax incentives	(5)	(4)
Tax rate adjustments Disposal of businesses	2	(1) (2)
Irrecoverable withholding tax	2	6
Other	10	5
Tax expense	50	75

Losses and other temporary differences not recognised includes current year tax losses arising in Canada, South Africa and China which are not expected to be used in the foreseeable future.

Recognition or utilisation of previously unrecognised tax assets is mainly the recognition of tax incentives in Poland.

Adjustments for prior years includes current and deferred tax adjustments in respect of the UK, US and Macedonia, as well as adjustments in respect of provisions for uncertain tax positions.

Other tax incentives includes research and development tax incentives in the US and China and other tax incentives in Poland.

Irrecoverable withholding tax and other include movements in respect of provisions for uncertain tax positions.

Notes on the accounts continued

for the year ended 31st March 2020

7 Tax on other comprehensive income

		2020			2019	
	Before tax £ million	Tax £ million	Net of tax £ million	Before tax £ million	Tax £ million	Net of tax £ million
Items that will not be reclassified to the income statement Remeasurements of post-employment benefit assets and liabilities	87	(18)	69	(69)	13	(56)
Fair value losses on equity investments at fair value through other comprehensive income Tax rate adjustments	(2) -	_ (3)	(2) (3)	(3)	- -	(3)
Items that may be reclassified to the income statement Exchange differences on translation of foreign operations Fair value losses on other investments at fair value through	65	-	65	22	1	23
other comprehensive income	_	-	-	(1)	_	(1)
Amounts credited to hedging reserve	-	-	-	4	(1)	3
Fair value losses on net investment hedges	(8)	-	(8)	(1)	_	(1)
Total other comprehensive income	142	(21)	121	(48)	13	(35)

8 Earnings per ordinary share

	2020	2019
	pence	pence
Basic	132.3	215.2
Diluted	132.1	214.6

Earnings per ordinary share have been calculated by dividing profit for the year by the weighted average number of shares in issue during the year.

	2020	2019
Weighted average number of shares in issue		
Basic	192,437,993	192,128,811
Dilution for long term incentive plans	314,053	559,693
Diluted	192,752,046	192,688,504

Notes on the accounts continued

for the year ended 31st March 2020

9 Property, plant and equipment

Group

578 10 13 (7) - - 13 607 2 3 (3) 18	25 1 1 - (3) - 1 25 - 1 (1)	1,919 60 63 - 11 (40) (2) 45 2,056 33 112	209 164 (77) (1) - - 1 296 316	2,731 235 - (8) 11 (43) (2) 60 2,984 351
13 (7) - - 13 607 2 3 (3) 18	(3) - (3) - 1 25 - 1 (1)	63 - 11 (40) (2) 45 2,056 33 112	(77) (1) - - 1 296 316	(8) 11 (43) (2) 60
(7) - - 13 607 2 3 (3) 18	(3) - 1 25 - 1 (1)	2,056 33 112	(1) - - - 1 296 316	(8) 11 (43) (2) 60 2,984
13 607 2 3 (3)	25 - 1 (1)	11 (40) (2) 45 2,056 33 112	296 316	11 (43) (2) 60 2,984
- 13 607 2 3 (3) 18	(3) - 1 25 - 1 (1)	(40) (2) 45 2,056 33 112	- 1 296 316	(43) (2) 60 2,984
- 13 607 2 3 (3) 18	25 - 1 (1)	(2) 45 2,056 33 112	- 1 296 316	(2) 60 2,984
607 2 3 (3) 18	1 25 - 1 (1)	2,056 33 112	296 316	2,984
607 2 3 (3) 18	25 - 1 (1)	2,056 33 112	296 316	2,984
2 3 (3) 18	- 1 (1)	33 112	316	,
3 (3) 18	1 (1)	112		351
(3) 18	(1)		(110)	
18		(7 -)	(116)	-
	/1\	(75)	(15)	(94)
627	(1)	45	5	67
027	24	2,171	486	3,308
250	15	1,302	9	1,576
19	1	121	1	142
. ,	_	-	1	(5)
. ,	_	_	_	(1)
		. ,		_
		, ,	_	(40)
/	1	33	_	41
268	15	1,414	16	1,713
	2	120	_	140
	1			99
. ,	, ,	, ,	, ,	(88)
10	_	31	_	41
317	17	1,554	17	1,905
310	7	617	469	1,403
339	10	642	280	1,271
328	10	617	200	1,155
	19 (6) (1) (1) -7 268 18 23 (2) 10 317 310 339	19 1 (6) - (1) - (1) 1 - (1) 1 - (3) 7 1 268 15 18 2 23 1 (2) (1) 10 - 317 17 310 7 339 10	19 1 121 (6) - - (1) - - (1) 1 (5) - (3) (37) 7 1 33 268 15 1,414 18 2 120 23 1 60 (2) (1) (71) 10 - 31 317 17 1,554 310 7 617 339 10 642	19 1 121 1 (6) - - 1 (1) - - - (1) 1 (5) 5 - (3) (37) - 7 1 33 - 268 15 1,414 16 18 2 120 - 23 1 60 15 (2) (1) (71) (14) 10 - 31 - 317 17 1,554 17 310 7 617 469 339 10 642 280

Finance costs capitalised were £7 million (2019: £4 million) and the capitalisation rate used to determine the amount of finance costs eligible for capitalisation was 3.0% (2019: 3.2%).

During the year, the group recognised impairments in respect of three Clean Air manufacturing plants (£55 million) and the Battery Materials LFP business (£35 million) which have been included in major impairment and restructuring charges (see note 3) and an impairment in respect of its Battery Materials eLNO demonstration plants (£8 million) which has been included in administrative expenses. The construction of the eLNO demonstration plants was discontinued during the year. The carrying value of the plants was £14 million. Assets with a carrying value of £6 million will be used in the construction of the commercial eLNO plants.

The carrying value of temporarily idle property, plant and equipment at 31 March 2020 is £473 million (31 March 2019: £nil). As a result of COVID-19, most of the manufacturing plants in the Clean Air sector outside China were temporarily closed in March 2020, which represents a triggering event that could indicate that they are impaired. The plants have been tested for impairment based on discounted cash flows consistent with our deep recession scenario and, with the exception of three plants which have been impaired as a result of the optimisation of the manufacturing footprint in the Clean Air sector (see note 3), their carrying values are not considered to be impaired. All of the plants that were temporarily closed are now in operation.

Notes on the accounts continued

for the year ended 31st March 2020

9 Property, plant and equipment (continued)

Parent company

Freehold land and buildings £ million	Leasehold improvements £ million	Plant and machinery £ million	Assets in the course of construction £ million	Total £ million
129 - - (2)	3 - - - -	592 12 2 (19) (6)	51 76 (2) (8) (18)	775 88 - (29) (24)
127	3	581	99	810
61 3 12 (2)	2 - -	400 33 30 (18)	- - 6 (7)	463 36 48 (27)
74	2	445	(1)	520
53	1	136 192	100 51	290 312
	and buildings £ million 129	and buildings improvements £ million 129	and buildings £ million improvements £ million machinery £ million 129 3 592 - - 12 - - 2 (2) - (19) - - (6) 127 3 581 61 2 400 3 - 33 12 - 30 (2) - (18) 74 2 445 53 1 136	Freehold land and buildings £ million Leasehold improvements £ million Plant and machinery £ million the course of construction £ million 129 3 592 51 − − 12 76 − − 2 (2) (2) − (19) (8) − − (6) (18) 127 3 581 99 61 2 400 − 3 − 33 − 12 − 30 6 (2) − (18) (7) 74 2 445 (1)

Finance costs capitalised were £1 million (2019: £2 million) and the capitalisation rate used to determine the amount of finance costs eligible for capitalisation was 3.0% (2019: 3.2%).

During the year, the parent company recognised impairments in respect of a Clean Air manufacturing plant (£42 million) and the Battery Materials eLNO demonstration plant (£6 million).

10 Goodwill

	Group £ million	Parent company £ million
Cost At 1st April 2018 Exchange adjustments	585 4	123
At 31st March 2019 Exchange adjustments	589 9	123
At 31st March 2020	598	123
Impairment At 1st April 2018 and 31st March 2019 Impairment losses	11 7	- 8
At 31st March 2020	18	8
Carrying amount at 31st March 2020	580	115
Carrying amount at 31st March 2019	578	123
Carrying amount at 1st April 2018	574	123

Notes on the accounts continued

for the year ended 31st March 2020

10 Goodwill (continued)

Significant cash-generating units (CGUs)

Goodwill arising on the acquisition of businesses is allocated, at acquisition, to the CGUs that are expected to benefit from that business combination. These CGUs represent the smallest identifiable groups of assets that generate cash inflows that are largely independent of the cash inflows from other groups of assets. Goodwill allocated to the significant CGUs is as follows:

	Group		Parent company	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Clean Air – Heavy Duty Catalysts	88	85	-	_
Efficient Natural Resources - Catalyst Technologies - Diagnostic Services - Other	272 49 2	267 50 3	113 - -	113 - -
Health - Generics¹ - Innovators	117 29	117 27	- 2	- 2
New Markets ²	23	29	-	8
	580	578	115	123

¹ The goodwill recognised on the acquisition of Macfarlan Smith is allocated to the Generics CGU which comprises both the legacy Macfarlan Smith business and the group's other generics businesses reflecting the way that the group monitors and manages its operations.

Impairment testing

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 generally use cash flow projections based on financial budgets and plans covering a three-year period approved by management. The budgets and plans are based on a number of assumptions, including market share, expected changes to selling prices, product profitability, precious metal prices and other direct input costs, based on past experience and management's expectations of future changes in the markets using external sources of information where appropriate. The budgets and plans used for the impairment reviews reflect management's estimate of the impact of COVID-19, which is a deep recession involving a period of lower demand followed by an extended recovery period. The key macro assumptions for our financial year 20/21 under the deep recession scenario are shown on page 65. Further information on the group's current strategic and business planning process is provided in the viability statement on page 75.

Unallocated corporate costs are split between CGUs based on their share of contribution. The three-year cash flows are extrapolated using the long term average growth rates for the relevant products, industries and countries in which the CGUs operate. Pre-tax discount rates, derived from the group's post-tax weighted average cost of capital of 6.5% (2019: 7.6%), adjusted for the risks applicable to each CGU are used to discount these projected risk-adjusted cash flows.

The key assumptions are:

Discor	Discourit rate		growthrate
2020	2019	2020	2019
9.8%	9.5%	-1.2%	-1.0%
8.3% 9.7%	10.3% 10.3%	2.8% 1.3%	2.7% 1.3%
9.9% 8.4%	8.6% 9.2%	2.0% 3.0%	4.0% 3.0%
	9.8% 8.3% 9.7%	202020199.8%9.5%8.3%10.3%9.7%10.3%9.9%8.6%	2020 2019 2020 9.8% 9.5% -1.2% 8.3% 10.3% 2.8% 9.7% 10.3% 1.3% 9.9% 8.6% 2.0%

Discount rate

Long term growth rate

² New Markets comprises CGUs with goodwill balances individually less than £10 million.

Notes on the accounts continued

for the year ended 31st March 2020

10 Goodwill (continued)

Impairment testing (continued)

Different long term growth rates are used for the Clean Air – Heavy Duty Catalysts CGU because of expected macroeconomic trends in the industry in which the business operates. The growth rate for years four to ten is expected to be 1% (2019: 1%). After that, growth is expected to slow and, therefore, the long term growth rate above is used for year 11 onwards.

Different long term growth rates are used for the Health – Generics CGU because of the significant growth expected in the medium term from our existing pipeline of active pharmaceutical ingredients. The growth rate for years four to ten is expected to be 4% (2019: 4%). The long term growth rate above is used for year 11 onwards.

Goodwill of £7 million in the Battery Materials LFP CGU in the New Markets sector has been fully impaired during the year (see note 3). The parent company has impaired £8 million of goodwill during the year, which represents its allocation of the goodwill in the Battery Materials LFP CGU.

Sensitivity analysis

The headroom for the significant CGUs, calculated as the difference between their carrying values including allocated goodwill at 31st March 2020 and the value in use calculations, is shown below. The table also shows, for each significant CGU, the headroom assuming a 1% decrease in the growth rate assumption and a 1% increase in the discount rate assumption used in the value in use calculations.

	Headroom at 31st March 2020 £ million	assuming a 1% decrease in the growth rate £ million	assuming a 1% increase in the discount rate £ million
Clean Air			
– Heavy Duty Catalysts	196	132	123
Efficient Natural Resources			
- Catalyst Technologies	874	655	637
– Diagnostic Services	25	14	12
Health			
- Generics	123	64	58
- Innovators	149	112	110

There are no impairments for the significant CGUs under a very deep recession scenario, which reflects even lower demand followed by a challenging, stuttering recovery. The key macro assumptions for our financial year 20/21 under the very deep recession scenario are shown on page 65.

Notes on the accounts continued

for the year ended 31st March 2020

11 Other intangible assets

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 2018	152	188	69	53	180	642
Additions	_	63	6	_	19	88
Transfer to property, plant and equipment (note 9) Disposals	_	(11) (9)	_	_	_	(11) (9)
Disposals Disposal of businesses	_	(9)	(13)	(1)	(1)	(15)
Exchange adjustments	_	_	1	-	8	9
At 31st March 2019	152	231	63	52	206	704
Additions	_	90	1	-	23	114
Disposals	(7)	(1)	(1)	(3)	(21)	(33)
Exchange adjustments	1	1	1	1	10	14
At 31st March 2020	146	321	64	50	218	799
Accumulated amortisation and impairment						
At 1st April 2018	107	54	35	31	120	347
Charge for the year	6	9	4	4	6	29
Disposals Disposal of businesses	_	(9)	(5)	- (1)	_	(9)
Exchange adjustments	1	_	(5)	(1)	5	(6) 7
At 31st March 2019	114	54	35	34	131	368
Charge for the year	5	10	2	4	3	24
Impairment losses	_	7	2	3	21	33
Disposals	(7)	(1)	(1)	(3)	(21)	(33)
Exchange adjustments	1	1	2	1	6	11
At 31st March 2020	113	71	40	39	140	403
Carrying amount at 31st March 2020	33	250	24	11	78	396
Carrying amount at 31st March 2019	38	177	28	18	75	336
Carrying amount at 1st April 2018	45	134	34	22	60	295

During the year, the group recognised impairments in respect of three Clean Air manufacturing plants (£6 million), the Battery Materials LFP business (£5 million) and development expenditure which had been capitalised in respect of terminated molecules in the Health sector (£20 million) which have been included in major impairment and restructuring charges (see note 3).

Notes on the accounts continued

for the year ended 31st March 2020

11 Other intangible assets (continued)

Parent company

	Computer software £ million	Patents, trademarks and licences £ million	Acquired research and technology £ million	Development expenditure £ million	Total £ million
Cost At 31st March 2019 Additions	190 86	26 1	10	22 12	248 99
At 31st March 2020	276	27	10	34	347
Accumulated amortisation and impairment At 31st March 2019 Charge for the year Impairment losses	20 8 6	2 1 -	4 - 3	15 - -	41 9 9
At 31st March 2020	34	3	7	15	59
Carrying amount at 31st March 2020	242	24	3	19	288
Carrying amount at 31st March 2019	170	24	6	7	207

During the year, the parent company recognised impairments in respect of a Clean Air manufacturing plant (£6 million) and the Battery Materials LFP business (£3 million).

12 Investments in subsidiaries

	Cost of investments in subsidiaries £ million	Accumulated impairment £ million	Carrying amount £ million
At 1st April 2018 Additions	2,255 12	(258)	1,997 12
Disposals	(97)		(97)
At 31st March 2019 Additions Impairment losses	2,170 13 -	(258) - (4)	1,912 13 (4)
At 31st March 2020	2,183	(262)	1,921

 $The parent company \ recognised \ an \ impairment \ during \ the \ year \ in \ respect \ of \ its \ investment \ in \ Johnson \ Matthey \ Argentina \ S.A.$

The parent company's subsidiaries are shown in note 33.

Notes on the accounts continued

for the year ended 31st March 2020

13 Investments in joint venture and associate

		2020 £ million	2019 £ million
Investment in joint venture Investment in associate	-	6 17	5 15
Investments in joint venture and associate	-	23	20
The movements in the year were:			
	Joint venture £ million	Associate £ million	Total £ million
At 1st April 2018 and 31st March 2019 Group's share of profit for the year	5 1	15 2	20
At 31st March 2020	6	17	23

The group has an 11.1% interest in the ordinary share capital of Shanghai Bi Ke Clean Energy Technology Co Ltd (CECC) and has significant influence in this entity as CECC requires unanimous board decisions. As a result, this investment is accounted for as an investment in an associate in the group accounts. In addition, the parent company has a revenue share agreement with CECC which is accounted for as a non-current investment at fair value through other comprehensive income (note 14).

The group has a 51% interest in the ordinary share capital of Qingdao Johnson Matthey Hero Catalyst Company Limited, with the other 49% being owned by Qingdao Hero Chemical Engineering Company Ltd. This investment is accounted for as an investment in joint venture on the basis that the group has joint control over the entity. Directors from both of the owners sit on the board of the company and decisions require unanimous consent.

During the year ended 31st March 2020, the group made purchases from its joint venture and associate totalling £1 million (2019: £1 million).

14 Investments at fair value through other comprehensive income

	Gloup Falent Compan		ссипрану	
	2020	2019	2020	2019
	£ million	£ million	£ million	£ million
Quoted bonds purchased to fund pension deficit	49	52	-	-
Unquoted investments		-	7	7
	49	52	7	7

Parent company

There is no active market for the unquoted investments and, therefore, they are categorised as level 3 (note 28). The parent company's investment is the revenue share agreement with CECC (note 13). Movements in the unquoted investments in the year are shown below:

	Group £ million	company £ million
At 1st April 2018	3	7
Impairment losses	(3)	_
At 31st March 2019 and 31st March 2020		7

15 Interest rate swaps

	Group		Parent company	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Cross currency interest rate swaps designated as cash flow hedges	19	8	19	8
Interest rate swaps designated as fair value hedges	15	5	15	5
Interest rate swaps	34	13	34	13

Notes on the accounts continued

for the year ended 31st March 2020

16 Inventories

	Group		Parent company	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Raw materials and consumables	292	277	43	42
Work in progress	1,289	750	675	311
Finished goods and goods for resale	321	289	61	77
Inventories	1,902	1,316	779	430

Work in progress includes £0.9 billion (31st March 2019: £0.4 billion) of precious metal which is committed to future sales to customers and valued at the price at which it is contractually committed. The impact of COVID-19 has been taken into consideration when assessing the net realisable value of inventories not contractually committed to future sales.

The increase in work in progress reflects an increase in precious metal inventories driven by an increase in metal prices, as well as higher volumes due to reduced demand for production in Clean Air in March 2020 as a result of COVID-19. The impact of higher inventories on the group's working capital is offset by a net increase in amounts payable under precious metal sale and repurchase agreements (see notes 17 and 19).

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

17 Trade and other receivables

	Group		Parent company	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Current				
Trade receivables	1,228	1,204	291	206
Contract receivables	163	43	29	_
Amounts receivable from subsidiaries ^{1, 2}	-	_	1,404	1,223
Prepayments	80	109	41	33
Value added tax and other sales tax receivable	71	33	-	5
Advance payments to customers	8	5	-	_
Amounts receivable under precious metal sale and repurchase agreements	457	97	427	75
Other receivables	70	62	33	50
Trade and other receivables	2,077	1,553	2,225	1,592
Non-current				
Amounts receivable from subsidiaries ³	-	_	1,211	1,009
Value added tax and other sales tax receivable	2	_	-	_
Prepayments	3	18	3	_
Advance payments to customers	58	21	-	1
Other receivables	63	39	1,214	1,010

¹ The parent company prior year comparatives have been restated to increase current amounts receivable from subsidiaries by £278 million. The restated amounts relate to the prior year net presentation of intercompany treasury accounts in different currencies. The parent company does not have an enforceable legal right to set off these amounts and, therefore, they have been restated on a gross basis.

The increase in group contract receivables reflects higher unbilled amounts in respect of sales of precious metal due to metal price increases.

The increase in amounts receivable under precious metal sale and repurchase agreements is more than offset by an increase in amounts payable under precious metal sale and repurchase agreements driven by an increase in metal prices, as well as additional metal available to sell and repurchase due to reduced demand for production in Clean Air in March 2020 as a result of COVID-19 and lower refinery backlogs in Efficient Natural Resources (see notes 16 and 19).

The fair value of the precious metal contracted to be sold by the group under sale and repurchase agreements is £760 million (2019: £113 million).

Of the parent company's amounts receivable from subsidiaries, £153 million is impaired (2019: £131 million). Future expected credit losses on intercompany receivables are immaterial.

The parent company has three intercompany fixed-term loans that are due for repayment within one year. The loans are denominated in Brazilian Real and Malaysian Ringgit and have fixed interest rates between 4.8% and 6.5%. In addition, the parent company has a mixture of trade receivables from subsidiaries, which have limited specific contractual terms, and a number of receivable balances held in different currencies under an intercompany treasury facility that accrues interest at LIBOR +0.81% and are repayable on demand.

³ The parent company has a range of approximately 30 intercompany fixed-rate loans receivable across multiple currencies, with repayment dates ranging from 2022 to 2030. These unsecured loans have a range of interest rates determined by the currency in which they are denominated, ranging from 2.8% on Japanese Yen to 12.5% on Indian Rupee.

Notes on the accounts continued

for the year ended 31st March 2020

18 Other financial assets and liabilities

	Gr	oup	Parent company		
	2020 £ million	2019 £ million	2020 £ million	2019 £ million	
Forward foreign exchange contracts designated as cash flow hedges Forward precious metal price contracts designated as cash flow hedges	4 2	5 1	6 2	5 1	
Forward foreign exchange contracts and currency swaps at fair value through profit or loss	22	16	20	17	
Other financial assets	28	22	28	23	
Forward foreign exchange contracts designated as cash flow hedges Forward foreign exchange contracts and currency swaps at fair value through profit or loss	(10) (40)	(3) (10)	(10) (40)	(4) (10)	
Other financial liabilities	(50)	(13)	(50)	(14)	

19 Trade and other payables

	Gr	Parent company		
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Current				
Trade payables	677	637	261	229
Contract liabilities	134	85	5	17
Amounts payable to subsidiaries ^{1, 2}	_	_	2,372	2,012
Accruals	312	332	117	112
Amounts payable under precious metal sale and repurchase agreements	1,491	525	1,357	483
Other payables	131	68	55	21
Current trade and other payables	2,745	1,647	4,167	2,874
Non-current				
Amounts payable to subsidiaries ³	-	_	510	486
Other payables	6	5	4	3
Other payables	6	5	514	489

¹ The parent company prior year comparatives have been restated to increase current amounts payable to subsidiaries by £278 million. The restated amounts relate to the prior year net presentation of intercompany treasury accounts in different currencies. The parent company does not have an enforceable legal right to set off these amounts and, therefore, they have been restated on a gross basis.

The increase in group contract liabilities reflects a £51 million prepayment received from a customer in respect of sales of precious metal.

The amount of the contract liabilities balance at 31st March 2019 which was recognised in revenue during the year ended 31st March 2020 for the group and parent company was £85 million and £17 million, respectively.

The increase in amounts payable under precious metal sale and repurchase agreements is driven by an increase in metal prices, as well as additional metal available to sell and repurchase due to reduced demand for production in Clean Air in March 2020 as a result of COVID-19 and lower refinery backlogs in Efficient Natural Resources. The increase in amounts payable under precious metal sale and repurchase agreements is partially offset by an increase in amounts receivable under precious metal sale and repurchase agreements (see notes 16 and 17).

The fair value of the precious metal contracted to be repurchased by the group under sale and repurchase agreements is £1,738 million (2019: £502 million).

² The parent company has a mixture of trade payables to subsidiaries, which have limited specific contractual terms, and a number of payable balances held in different currencies under an intercompany treasury facility that accrues interest at one-month LIBOR less 0.125% subject to a minimum of 0% and are repayable on demand.

³ The parent company has a range of approximately ten intercompany fixed-term loans payable, all of which are denominated in sterling. These unsecured loans have repayment dates ranging from 2025 to 2037 and have interest rates between 3.3% and 4.9%.

for the year ended 31st March 2020

20 Borrowings and related swaps

	Group		Parent company	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Non-current				
Bank and other loans				
\$50 million KfW IPEX-Bank GmbH (KfW) loan 2020	-	(38)	_	(38)
4.66% €100 million Bonds 2021	_	(86)	-	(86)
€166 million EIB loan 2022	(148)	(143)	(148)	(143)
3.26% \$150 million Bonds 2022	(128)	(116)	(128)	(116)
2.99% \$165 million Bonds 2023	(134)	(127)	(134)	(127)
2.44% €20 million Bonds 2023	(18)	(17)	(18)	(17)
3.57% £65 million Bonds 2024	(65)	(65)	(65)	(65)
3.565% \$50 million KfW loan 2024	(41)	(38)	(41)	(38)
3.14% \$130 million Bonds 2025	(106)	(100)	(106)	(100)
1.40% €77 million Bonds 2025	(71)	(68)	(71)	(68)
2.54% £45 million Bonds 2025	(45)	(45)	(45)	(45)
3.39% \$180 million Bonds 2028	(146)	(138)	(146)	(138)
1.81% €90 million Bonds 2028	(86)	(80)	(86)	(80)
Other bank and other loans repayable in one to two years	_	(7)	-	_
Cross currency interest rate swaps designated as net investment hedges	(6)	(5)	-	_
Cross currency interest rate swaps designated as fair value hedges	-	-	(6)	(5)
Borrowings and related swaps	(994)	(1,073)	(994)	(1,066)
Current				
1.945% €124 million EIB loan 2019	_	(107)	_	(107)
\$50 million KfW IPEX-Bank GmbH (KfW) Ioan 2020	(41)		(41)	
4.66% €100 million Bonds 2021	(89)	_	(89)	_
Other bank and other loans	(201)	(77)	-	_
Borrowings and related swaps	(331)	(184)	(130)	(107)

The 3.26% \$150 million Bonds 2022 have been swapped into floating rate US dollars. The 1.40% €77 million Bonds 2025 and the 1.81% €90 million Bonds 2028 have been swapped into floating rate euros. \$100 million of the 3.14% \$130 million Bonds 2025 have been swapped into sterling at 2.83%.

All borrowings bear interest at fixed rates with the exception of the KfW loan 2020, the EIB loan 2022 and bank overdrafts, which bear interest at commercial floating rates.

Notes on the accounts continued

for the year ended 31st March 2020

21 Movements in assets and liabilities arising from financing activities

		Non-cash movements					
	2019 £ million	Cash (inflow) / outflow £ million	Transfers £ million	IFRS 16 transition £ million	Foreign exchange movements £ million	Fair value and other movements £ million	2020 £ million
Non-current assets Interest rate swaps	13	-	-	-	_	21	34
Non-current liabilities Borrowings and related swaps Lease liabilities	(1,073) -	- -	131 13	- (66)	(41) -	(11) (11)	(994) (64)
Current liabilities Borrowings and related swaps Lease liabilities	(184)	(12) 13	(131) (13)	- (11)	(4) -	_ (1)	(331) (12)
	-	1	-	(77)	(45)	(2)	
Dividends paid to equity shareholders Interest paid		167 202					
Net cash outflow from financing activities		370					
				Non-cash movements			
		2018 £ million	Cash (inflow) / outflow £ million	Transfers £ million	Foreign exchange movements £ million	Fair value and other movements £ million	2019 £ million
Non-current assets Interest rate swaps	-	6	-	(1)	_	8	13
Non-current liabilities Borrowings and related swaps		(951)	(202)	110	(26)	(4)	(1,073)
Current liabilities							
Borrowings and related swaps		(38)	(39)	(109)		2	(184)
Dividends paid to equity shareholders Interest paid			(241) 156 – 108	_	(26)	6	
Net cash outflow from financing activities		-	23				

for the year ended 31st March 2020

22 Provisions

Group

	Restructuring provisions £ million	Warranty and technology provisions £ million	Other provisions £ million	Total £ million
At 1st April 2018 Charge for the year Utilised Released Exchange adjustments	15 - (8) (4)	9 3 (1) (1)	27 2 (14) (1)	51 5 (23) (6)
At 31st March 2019 Adjustment on adoption of IFRS 16 (note 34)	3 -	10	16 (1)	29 (1)
At 1st April 2019 (restated) Charge for the year Utilised Released	3 - (1)	10 4 (1) (4)	15 5 (8) (3)	28 9 (10) (7)
At 31st March 2020	2	9	9	20

	2020 £ million	2019 £ million
Current	11	20
Non-current	9	9
Total provisions	20	29

Restructuring

The restructuring provisions are expected to be fully utilised by 31st March 2021.

Warranty and technology

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 Clean Air, Efficient Natural Resources and New Markets. Warranties generally cover a period of up to three years.

Other

The other provisions include environmental 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 utilised within the next 15 years.

Notes on the accounts continued

for the year ended 31st March 2020

22 Provisions (continued)

Parent company

	Restructuring provisions £ million	Other provisions £ million	Total £ million
At 1st April 2018	4	18	22
Charge for the year Utilised	(3)	7 (2)	(5)
At 31st March 2019 Adjustment on adoption of IFRS 16 (note 34)	1 –	23 (1)	24 (1)
At 1st April 2019 (restated) Charge for the year	1 –	22 35	23 35
Net sale of metal Utilised	(1)	29 -	29 (1)
At 31st March 2020	-	86	86
		2020 £ million	2019 £ million
Current Non-current		85 1	23 1

The other provisions include provisions to buy metal to cover short positions created by the parent company selling metal to cover price risk on metal owned by subsidiaries. Amounts provided reflect management's best estimate of the expenditure required to settle the obligations at the balance sheet date.

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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 2020 was £177 million (2019: £113 million).

23 Deferred tax

Total provisions

Group

Property, plant and equipment £ million	Post- employment benefits £ million	Provisions £ million	Inventories £ million	Intangibles £ million	Other £ million	deferred tax (assets) / liabilities £ million
21	30	(25)	(10)	21	9	46
8	7	1	(8)	(1)	(9)	(2)
_	_	_	_	_	1	1
- 1	(13) (1)	- (1)	-	- 1	- 1	(13) 1
30	23	(25)	(18)	21	2	33
(6)	9	_	(33)	(10)	(6)	(46)
,			, ,	, ,	, ,	, ,
_	21	_	_	_	_	21
1	(1)	(1)	-	1	-	-
25	52	(26)	(51)	12	(4)	8
	plant and equipment £ million 21 8 - 1 30 (6)	plant and equipment benefits £ million 21	plant and equipment £ million employment benefits £ million Provisions £ million 21 30 (25) 8 7 1 - - - 1 (1) (1) 30 23 (25) (6) 9 - - 21 - 1 (1) (1)	plant and equipment full million employment benefits full million Provisions full million Inventories fullion 21 30 (25) (10) 8 7 1 (8) - - - - - (13) - - 1 (1) (1) - 30 23 (25) (18) (6) 9 - (33) - 21 - - 1 (1) (1) -	plant and equipment £ million employment benefits £ million Provisions £ million Inventories £ million Intangibles £ million 21 30 (25) (10) 21 8 7 1 (8) (1) - - - - - (13) - - - 1 (1) (1) - 1 30 23 (25) (18) 21 (6) 9 - (33) (10) - 21 - - - 1 (1) (1) - 1	plant and equipment equipment employment fmillion Provisions fmillion Inventories fmillion Intangibles fmillion Other fmillion 21 30 (25) (10) 21 9 8 7 1 (8) (1) (9) - - - - - 1 - (13) - - - - - 1 (1) (1) - 1 1 30 23 (25) (18) 21 2 (6) 9 - (33) (10) (6) - 21 - - - - - 1 (1) (1) - 1 - - -

	2020 £ million	2019 £ million
Deferred tax assets Deferred tax liabilities	(66) 74	(58) 91
	8	33

for the year ended 31st March 2020

23 Deferred tax (continued)

Group (continued)

Deductible temporary differences, unused tax losses and unused tax credits not recognised on the balance sheet total £222 million (2019: £157 million), of which £50 million is expected to expire within 5 years, £16 million within 5 to 10 years, £44 million after 10 years and £112 million carry no expiry date.

Deferred tax liabilities have not been recognised on temporary differences of £1,769 million (2019: £1,672 million) associated with investments in subsidiaries.

The recognition of deferred tax assets has been determined by the recoverability of those assets against future tax liabilities as determined by budgets and plans that have been updated for COVID-19 showing future profits in relevant businesses.

The majority of the deferred tax assets and liabilities noted above are anticipated to be realised after more than 12 months.

Parent company

	Property, plant and equipment £ million	Post- employment benefits £ million	Provisions £ million	Inventories £ million	Intangibles £ million	Other £ million	deferred tax (assets) / liabilities £ million
At 1st April 2018	(4)	45	(2)	(5)	_	9	43
Charge / (credit) to the income statement Tax on items taken directly to or transferred	5	6	1	(6)	1	(1)	6
from equity		(11)	-	-	_	1	(10)
At 31st March 2019	1	40	(1)	(11)	1	9	39
(Credit) / charge to income statement Tax on items taken directly to or transferred	(4)	5	1	(32)	_	3	(27)
from equity	_	20	-	_	-	_	20
At 31st March 2020	(3)	65	-	(43)	1	12	32

Deductible temporary differences, unused tax losses and unused tax credits not recognised on the balance sheet are £6 million (2019: £2 million) and have no expiry date.

24 Post-employment benefits

Group

Background

Pension plans

The group operates a number of post-employment retirement and medical benefit plans around the world. 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.

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 closed to new entrants, but remain open to ongoing accrual for current members.

Notes on the accounts continued

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

Background (continued)

Regulatory framework and governance

The UK pension plan, the Johnson Matthey Employees Pension Scheme (JMEPS), is a registered arrangement 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 interests 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 defined benefit 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 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 company. The majority of the benefits attract inflation-related increases both before and after retirement. 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.

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. All new employees join the cash balance section of the plan.

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.

Other post-employment benefits

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.

Maturity profile

The estimated weighted average durations of the defined benefit obligations of the main plans as at 31st March 2020 are:

	Weighted average duration Years
Pensions:	
UK	19
US	13
Post-retirement medical benefits:	
UK	14
US	12

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

Funding

Introduction

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.

UK valuations

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 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, Employee Benefits, accounting purposes.

In January 2013, a special purpose vehicle (SPV), Johnson Matthey (Scotland) Limited Partnership, was set up to provide deficit reduction contributions and greater security to the trustee. The group invested £50 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, on a funding basis. This bond portfolio is held as a non-current investment at fair value through other comprehensive income (see note 14) 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.

A funding valuation of JMEPS was carried out as at 1st April 2018 and showed that there was a deficit of £34 million in the legacy section of the plan. To address this deficit, the parent company agreed to make a contribution of £23 million prior to 31st December 2019, of which £17 million was paid during the year ended 31st March 2020. At 31st March 2018, £43 million remained available within the SPV for future distribution which created an overall surplus of £9 million in the legacy section of the plan at that date. The valuation also showed a surplus in the cash balance section of the plan.

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.

US valuations

The last annual review of the US defined benefit pension plans was carried out by a qualified actuary as at 1st July 2019 and showed that there was a surplus of \$0.7 million on the projected funding basis. The assumptions used for funding valuations may differ to the actuarial assumptions used for IAS 19 accounting purposes.

Other valuations

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.

Notes on the accounts continued

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

Funding (continued)

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				
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.			
	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.			
	The plans implement partial currency hedging on their overseas assets to mitigate currency risk.			
Interest (discount) rate risk				
Liabilities are sensitive to movements in bond yields (interest rates), with lower interest	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.			
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.	In the UK, this interest rate hedge is extended by the use of interest rate swaps, such that approximately 70% of the plan's interest rate risk is currently hedged. The swaps are held with several banks to reduce counterparty risk.			
Inflation risk				
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.			
	In the UK, this inflation hedge is extended by the use of inflation swaps, such that approximately 70% of the plan's inflation risk is currently hedged. The swaps are held with several banks to reduce counterparty risk.			
Longevity risk				
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. During the year ended 31st March 2019, 57% of the members of the career average element of the legacy section of JMEPS elected to switch to the cash balance section as part of a pension plan review.			

Contributions

During the year, total contributions to the group's post-employment defined benefit plans were £52 million (2019: £75 million), including deficit contributions of £17 million (2019: £23 million) in respect of JMEPS. There was a contribution holiday in the US pension plans following an accelerated contribution made during the year ended 31st March 2019.

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.

It is estimated that the group will contribute approximately £50 million to the post-employment defined benefit plans during the year ending 31st March 2021.

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

IAS 19 accounting

Principal actuarial assumptions

Qualified independent actuaries have updated the IAS 19 valuations of the group's major defined benefit plans to 31st March 2020. 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.

Financial assumptions

	2020 UK plan %	2020 US plans %	2020 Other plans %	2019 UK plan %	2019 US plans %	2019 Other plans %
First year's rate of increase in salaries	-	_	2.15	3.85	3.00	2.45
Ultimate rate of increase in salaries	2.60	3.00	2.15	3.85	3.00	2.45
Rate of increase in pensions in payment	2.50	-	1.70	2.95	-	1.50
Discount rate	2.30	3.00	1.87	2.40	3.80	1.82
Inflation		2.20	1.65		2.20	1.60
 UK Retail Prices Index (RPI) 	2.50			3.10		
- UK Consumer Prices Index (CPI)	1.85			2.10		
Current medical benefits cost trend rate	5.40	2.20	-	5.40	2.95	_
Ultimate medical benefits cost trend rate	5.40	2.20	-	5.40	2.95	-

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 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:

ly age 65	Current
US plans	UK plan
85	87
87	90
S plans	

HK nost-

IIS nost-

Financial information

Plan assets

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

-	-	_	19	_	2	21
		_	(20)	_		(90)
_	_	_	_	3	3	52
		_	40 1	1	(1)	10
	(2)	_		_	(1)	63 32
	_	_	, ,	_	_	(4)
2,025	68	-	311	-	52	2,456
		-	21		(1)	20
(66)	(3)	_	(16)	(3)	(2)	(90)
36	18	_	16	2	3	75
2	5	_	1	1	_	9
	3	_	7	_	4	82
	1	_	11	_	1	66
,		_		_	- T	(4)
1 935	44		272		47	2,298
UK pension – legacy section £ million	UK pension – cash balance section £ million	retirement medical benefits £ million	US pensions £ million	retirement medical benefits £ million	Other £ million	Total £ million
	1,935 (3) 53 68 2 36 (66)	legacy section	legacy section £ million cash balance section £ million medical benefits £ million 1,935 44 - (3) - - 53 1 - 68 3 - 2 5 - 36 18 - (66) (3) - - - - 2,025 68 - (3) - - 48 2 - (11) (2) - 2 6 - 27 19 -	UK pension – legacy section £ million UK pension – cash balance section £ million retirement medical benefits £ million US pensions £ million 1,935 44 - 272 (3) - - (1) 53 1 - 11 68 3 - 7 2 5 - 1 36 18 - 16 (66) (3) - (16) - - - 21 2,025 68 - 311 (3) - - (1) 48 2 - 12 (11) (2) - 46 2 6 - 1 27 19 - - (61) (3) - (20)	UK pension – legacy section section £ million UK pension – cash balance section £ million retirement medical benefits £ million us million retirement medical benefits £ million 1,935 44 - 272 - (3) - - (1) - 53 1 - 11 - 68 3 - 7 - 2 5 - 1 1 36 18 - 16 2 (66) (3) - (16) (3) - - - 21 - 2,025 68 - 311 - (3) - - (1) - 48 2 - 12 - (11) (2) - 46 - 2 6 - 1 1 27 19 - - 3 (61) (3) - (20) (4)	UK pension – legacy section section £ million UK pension – cash balance section £ million retirement medical benefits £ million retirement medical benefits £ million retirement medical benefits £ million Other £ million 1,935 44 - 272 - 47 (3) - - (1) - - 53 1 - 11 - 1 68 3 - 7 - 4 2 5 - 1 1 - 36 18 - 16 2 3 (66) (3) - (16) (3) (2) - - - 21 - (1) 2,025 68 - 311 - 52 (3) - - (1) - - 48 2 - 12 - 1 (11) (2) - 46 - (1) 2 6

Notes on the accounts continued

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

Financial information (continued)

Plan assets (continued)

The fair values of plan assets are analysed as follows:

	2020 UK pension – legacy section £ million	2020 UK pension – cash balance section £ million	US pensions £ million	2020 Other £ million	2019 UK pension – legacy section £ million	2019 UK pension – cash balance section £ million	2019 US pensions £ million	2019 Other £ million
Quoted corporate bonds ¹	700	73	178	6	614	67	156	5
Inflation and interest rate swaps	37	-	-	-	86	_	_	_
Quoted government bonds ¹	809	-	150	-	495	_	110	_
Cash and cash equivalents	89	1	8	-	43	1	12	_
Quoted equity	290	16	32	1	680	_	33	2
Unquoted equity	40	-	-	-	42	_	_	_
Property	62	-	-	-	65	_	_	_
Insurance policies	-	-	-	48	-	-	-	45
	2,027	90	368	55	2,025	68	311	52

¹ Prior year comparatives re-presented to increase quoted government bonds by £475 million and to decrease quoted corporate bonds by £475 million in the legacy section of the UK pension plan.

The UK plan's unquoted equities are assets within a pooled infrastructure fund where the underlying assets are a broad range of private infrastructure investments, diversified by geographic region, infrastructure sector, underlying asset type and development stage. These infrastructure assets are valued using widely recognised valuation techniques which use market data and discounted cash flows. The same valuation approach is used to determine the value of the swaps and insurance policies.

The UK plan's property represents an investment in the Blackrock UK Property Fund, which is a unitised fund where the underlying assets are taken at market value. The valuation of the fund is independently audited by KPMG on an annual basis. On 20th March 2020, consistent with other property fund managers, Blackrock suspended dealing in the fund due to a significant decrease in property transactions on which to base the fund valuation as a consequence of the COVID-19 pandemic. The fair value at 31st March 2020 is based on the independent valuation of activity up to 20th March 2020 provided by the fund manager which is subject to material uncertainty. The group considers the fund's value to be materially accurate on the basis that any short term impact of COVID-19 would not reflect the value of these long term investments.

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.

Defined benefit obligation

Movements in the defined benefit obligation during the year were:

	UK pension – legacy section £ million	UK pension – cash balance section £ million	UK post- retirement medical benefits £ million	US pensions £ million	US post- retirement medical benefits £ million	Other £ million	Total £ million
At 1st April 2018	(1,710)	(43)	(9)	(292)	(34)	(82)	(2,170)
Current service cost	(12)	(17)	_	(8)	_	(3)	(40)
Past service credit	7	_	_	2	_	_	9
Interest cost	(46)	(2)	_	(12)	(1)	(2)	(63)
Employee contributions Remeasurements due to changes in:	(2)	(5)	_	(1)	(1)	-	(9)
Financial assumptions	(132)	(6)	_	(5)	(1)	(9)	(153)
Demographic assumptions	3	1	_	(3)	1	1	3
Benefits paid	66	3	_	16	3	2	90
Exchange adjustments	_	_	-	(23)	(4)	2	(25)
At 31st March 2019	(1,826)	(69)	(9)	(326)	(37)	(91)	(2,358)
Current service cost	(8)	(21)	_	(8)	(1)	(3)	(41)
Past service credit	_	_	_	_	10	10	20
Interest cost	(43)	(2)	_	(13)	(1)	(2)	(61)
Employee contributions	(2)	(6)	_	(1)	(1)	_	(10)
Remeasurements due to changes in:							
Financial assumptions	131	8	_	(47)	(5)	3	90
Demographic assumptions	(34)	-	(3)	4	(1)	_	(34)
Benefits paid	61	3	_	20	4	2	90
Exchange adjustments	_	_	_	(21)	(2)	(3)	(26)
At 31st March 2020	(1,721)	(87)	(12)	(392)	(34)	(84)	(2,330)

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

Financial information (continued)

Defined benefit obligation (continued)

A past service credit of £10 million has been recognised in underlying operating profit in respect of changes to the Johnson Matthey Inc. Post-retirement Welfare Plan, effective 1st January 2020. A past service credit of £10 million has been recognised in underlying operating profit in respect of changes to the group's Advanced Glass Technologies Netherlands defined benefit pension plan, effective 1st January 2020.

The net remeasurement gain in the legacy section of the UK pension plan during the year ended 31st March 2020 includes a gain due to changes in financial assumptions mainly reflecting a 60 basis point decrease in inflation, partly offset by a loss due to changes in demographic assumptions reflecting updated mortality assumptions.

Reimbursement rights

A government subsidy is receivable under the US Medicare legislation as the US post-retirement medical benefits plan is actuarially equivalent to the Medicare Prescription Drug Act and there is an insurance policy taken out to reinsure the pension commitments of one of the 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 benefit net assets.

Movements in the reimbursement rights during the year were:

<u> </u>	UK pension – legacy section £ million	UK pension – cash balance section £ million	UK post- retirement medical benefits £ million	US pensions £ million	US post- retirement medical benefits £ million	Other £ million	Total £ million
At 1st April 2018 Return on assets excluding interest			-		8 (1)	1 –	9 (1)
Exchange adjustments	-	-	-	_	1	_	1
At 31st March 2019	_	_	_	_	8	1	9
Return on assets excluding interest	-	_	-	_	(1)	_	(1)
At 31st March 2020	-	-	-	-	7	1	8

Net post-employment benefit assets and liabilities

The net post-employment benefit assets and liabilities are:

	UK pension – legacy section £ million	UK pension – cash balance section £ million	UK post- retirement medical benefits £ million	US pensions £ million	US post- retirement medical benefits £ million	Other £ million	Total £ million
At 31st March 2020 Defined benefit obligation Fair value of plan assets Reimbursement rights	(1,721) 2,027 -	(87) 90 -	(12) - -	(392) 368 -	(34) - 7	(84) 55 1	(2,330) 2,540 8
Net post-employment benefit assets and liabilities	306	3	(12)	(24)	(27)	(28)	218
At 31st March 2019 Defined benefit obligation Fair value of plan assets Reimbursement rights	(1,826) 2,025 -	(69) 68 -	(9) - -	(326) 311 -	(37) - 8	(91) 52 1	(2,358) 2,456 9
Net post-employment benefit assets and liabilities	199	(1)	(9)	(15)	(29)	(38)	107

These are included in the balance sheet as follows:						
	2020	2020	2020	2019	2019	2019
	Post-			Post-	- 1	
	employment benefit	Employee benefit net		employment benefit	Employee benefit net	
	net assets	obligations	Total	net assets	obligations	Total
	£ million	£ million	£ million	£ million	£ million	£ million
UK pension – legacy section	306	-	306	199	_	199
UK pension – cash balance section	3	_	3	_	(1)	(1)
UK post-retirement medical benefits	_	(12)	(12)	_	(9)	(9)
US pensions	_	(24)	(24)	_	(15)	(15)
US post-retirement medical benefits	7	(34)	(27)	8	(37)	(29)
Other	1	(29)	(28)	2	(40)	(38)
Total post-employment plans	317	(99)	218	209	(102)	107
Other long term employee benefits		(5)			(4)	
Total long term employee benefit obligations		(104)			(106)	

Notes on the accounts continued

for the year ended 31st March 2020

24 Post-employment benefits (continued)

Group (continued)

Financial information (continued)

Income statement

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

	2020 £ million	2019 £ million
Administrative expenses Current service cost Past service credit	(4) (41) 20	(4) (40) 9
Defined benefit post-employment costs charged to operating profit Defined contribution plans' expense Other long term employee benefits	(25) (23) (1)	(35) (21) –
Charge to operating profit Interest on post-employment benefits credited to finance income	(49) 2	(56) 3
Charge to profit before tax	(47)	(53)

Statement of total comprehensive income

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

	£ million	£ million
Return on plan assets excluding interest	32	82
Remeasurements due to changes in:		
Financial assumptions	90	(153)
Demographic assumptions	(34)	3
Reimbursement rights – return on assets excluding interest	(1)	(1)
Remeasurements of post-employment benefit assets and liabilities	87	(69)

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Sensitivity analysis

The calculations of the defined benefit obligations are sensitive to the assumptions used. The following summarises the estimated impact on the group's main plans of a change in the assumption 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.

Financial assumptions

A 0.1% change in the discount rate and inflation assumptions would (increase) / decrease the UK and US pension plans' defined benefit obligations at 31st March 2020 as follows:

0.1% i	ncrease	0.1% decrease	
UK plan £ million	US plans £ million	UK plan £ million	US plans £ million
34	5	(36)	(5)
(30)	-	30	-

Demographic assumptions

A one-year increase in life expectancy would increase the UK and US pension plans' defined benefit obligation by £59 million and £8 million, respectively.

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 above.

Land and

Plant and

2020

Notes on the accounts continued

for the year ended 31st March 2020

25 Leases

Leasing activities

The group and parent company lease some of their property, plant and equipment which are used by the group and parent company in their operations. The impact of the group's transition to IFRS 16 is disclosed in note 34.

Right-of-use assets

Group

	Land and buildings £ million	Plant and machinery £ million	Total £ million
At 1st April 2019 on transition to IFRS 16	77	12	89
New leases, remeasurements and modifications	5	8	13
Disposals	_	(1)	(1)
Depreciation charge for the year	(10)	(4)	(14)
Impairment losses	(1)	_	(1)
Exchange adjustments	1	1	2
At 31st March 2020	72	16	88

Parent company

	buildings £ million	machinery £ million	Total £ million
At 1st April 2019 on transition to IFRS 16	13	1	14
New leases, remeasurements and modifications	3	6	9
Depreciation charge for the year	(3)	(1)	(4)
At 31st March 2020	13	6	19

Lease liabilities

	Group £ million	Parent company £ million
Current	12	3
Non-current	64	16
Lease liabilities	76	19

	202	0
	Group £ million	Parent company £ million
Interest expense	3	1

A maturity analysis of lease liabilities is disclosed in note 27.

Other

	202	:0
	Group £ million	Parent company £ million
Total cash outflow for leases	16	5

The expense relating to low-value and short term leases is immaterial.

Notes on the accounts continued

for the year ended 31st March 2020

26 Share capital and other reserves

Share capital

	Number	± million
Issued and fully paid ordinary shares At 1st April 2018, 31st March 2019 and 31st March 2020	198,940,606	221

Details of outstanding allocations under the company's long term incentive plans and awards under the deferred bonus which have yet to mature are disclosed in note 29.

At the last annual general meeting on 17th July 2019, 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 long term incentive plans. At 31st March 2020, the ESOT held 1,011,913 shares (2019: 1,439,984 shares) which had not yet vested unconditionally to 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 (2019: 5,407,176) at a total cost of £92 million (2019: £92 million).

Dividends

	£ million	£ million
2017/18 final ordinary dividend paid – 58.25 pence per share	-	112
2018/19 interim ordinary dividend paid – 23.25 pence per share	-	44
2018/19 final ordinary dividend paid – 62.25 pence per share	120	_
2019/20 interim ordinary dividend paid – 24.50 pence per share	47	-
Total dividends	167	156

A final dividend of 31.125 pence per ordinary share has been proposed by the board which will be paid on 4th August 2020 to shareholders on the register at the close of business on 19th June 2020, subject to shareholders' approval. The estimated amount to be paid is £60 million and has not been recognised in these accounts.

Other reserves

Capital redemption reserve The capital redemption reserve represents the cumulative nominal value of the company's ordinary shares repurchased and subsequently cancelled.

Foreign currency translation reserve The foreign currency translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

Fair value through other comprehensive income reserve The fair value through other comprehensive income reserve represents the equity movements on financial assets held within this category.

Hedging reserve The hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments. All amounts recorded in reserves at year end in relation to cash flow and net investment hedges relate to continuing hedge relationships.

for the year ended 31st March 2020

26 Share capital and other reserves (continued)

Other reserves (continued)

Group

			Не				
	Capital redemption reserve £ million		Fair value through other comprehensive income reserve £ million	Forward currency contracts £ million	Cross currency contracts £ million	Forward metal contracts £ million	Total other reserves £ million
At 1st April 2018	7	56	6	1	(6)	(2)	62
Cash flow hedges – (losses) / gains taken to equity	-	-	_	(4)	7	1	4
Cash flow hedges – transferred to revenue							
(income statement)	-	-	_	1	-	-	1
Cash flow hedges – transferred to foreign exchange					(=)		(=)
(income statement)	_	_	_	_	(5)	_	(5)
Cash flow hedges – transferred to inventory (balance sheet)				1		3	4
Fair value losses on net investment hedges	_	_	_	1	_	3	4
taken to equity	_	(1)	_	_	_	_	(1)
Fair value losses on investments at fair value		(' /					(' ' /
through other comprehensive income	_	_	(4)	_	_	_	(4)
Exchange differences on translation of foreign							
operations taken to equity	-	22	_	_	_	_	22
Tax on items taken directly to or transferred							
from equity	_	1	_	_	_	(1)	_
Reclassification		4				_	4
At 31st March 2019	7	82	2	(1)	(4)	1	87
Cash flow hedges – (losses) / gains taken to equity	-	-	_	(9)	11	2	4
Cash flow hedges – transferred to revenue							
(income statement)	-	-	_	(1)	_	_	(1)
Cash flow hedges – transferred to foreign exchange					(=)		(=)
(income statement)	_	_	_	_	(5)	_	(5)
Cash flow hedges – transferred to inventory (balance sheet)				3		(1)	2
Fair value losses on net investment hedges				J		(1)	_
taken to equity	_	(8)	_	_	_	_	(8)
Fair value losses on investments at fair value		(-)					(-)
through other comprehensive income	-	_	(2)	_	-	-	(2)
Exchange differences on translation of foreign							
operations taken to equity	-	65	_	-	-	-	65
Tax on items taken directly to or transferred					/4:		
from equity	_		_	1	(1)	_	
At 31st March 2020	7	139	-	(7)	1	2	142
-							

Notes on the accounts continued

for the year ended 31st March 2020

26 Share capital and other reserves (continued)

Other reserves (continued)

Parent company

			Hedging reserve				
	Capital redemption reserve £ million	Foreign currency translation reserve £ million	Fair value through other comprehensive income reserve £ million	Forward currency contracts £ million	Cross currency contracts £ million	Forward metal contracts £ million	Total other reserves £ million
At 1st April 2018	7	(4)	3	2	(6)	(2)	_
Cash flow hedges — (losses) / gains taken to equity	-	_	_	(2)	7	1	6
Cash flow hedges — transferred to revenue							
(income statement)	-	-	_	1	-	-	1
Cash flow hedges — transferred to foreign exchange (income statement)	-	-	_	_	(5)	-	(5)
Cash flow hedges — transferred to inventory (balance sheet)	-	_	_	_	-	3	3
Tax on items taken directly to or transferred from equity	_	_	-	_	_	(1)	(1)
Reclassification	-	4	_	_	-	-	4
At 31st March 2019	7	_	3	1	(4)	1	8
Cash flow hedges — (losses) / gains taken to equity	_	_	_	(5)	11	2	8
Cash flow hedges — transferred to foreign exchange (income statement)	_	-	_	_	(5)	_	(5)
Cash flow hedges — transferred to inventory (balance sheet)	_	_	_	_	_	(1)	(1)
Tax on items taken directly to or transferred from equity	_	_	_	1	(1)	_	
At 31st March 2020	7	-	3	(3)	1	2	10

Capital

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 uses return on invested capital (ROIC) to provide a measure of its efficiency in allocating the capital under its control to profitable investments (see note 35). Capital employed is defined as total equity, excluding post tax pension net assets, plus net debt. During the year, the group complied with all externally imposed capital requirements to which it is subject.

27 Financial risk management

The group's activities expose it to a variety of financial risks, including credit risk, market risk and liquidity risk. Market risk includes foreign currency risk, interest rate risk and price risk. The financial risks are managed by the group, under policies approved by the board. The group uses derivative financial instruments, including forward currency contracts, interest rate swaps and currency swaps, to manage the financial risks associated with its underlying business activities and the financing of those activities. Some derivative financial instruments used to manage financial risk are not designated as hedges and, therefore, are classified as at fair value through profit or loss. The group does not undertake any speculative trading activity in financial instruments.

for the year ended 31st March 2020

27 Financial risk management (continued)

Credit risk

Within certain businesses, the group derives a significant proportion of its revenue from sales to major customers. Sales to individual customers are large 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 results. The group derives significant benefit from trading with its customers and manages the risk at many levels. Each sector 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 overdue within the group, and the relevant actions being taken. At 31st March 2020, trade receivables for the group amounted to £1,228 million (2019: £1,204 million), of which £906 million (2019: £928 million) are in Clean Air which mainly supplies car and truck manufacturers and component suppliers in the automotive industry. Although Clean Air has a wide range of customers, the concentrated nature of this industry means that amounts owed by individual customers can be large and, in the event that one of those customers experiences financial difficulty, there could be a material adverse impact on the group. Other parts of the group tend to sell to a larger number of customers and amounts owed tend to be lower. At 31st March 2020, no single outstanding balance exceeded 2% (2019: 2%) of revenue.

The credit profiles of the group's customers are obtained from credit rating agencies where possible and are closely monitored. The scope of these reviews includes amounts overdue and credit limits. The group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, risk associated with the industry and country in which customers operate may also influence the credit risk. The credit quality of customers is assessed by taking into account financial position, past experience and other relevant factors, in particular those based on current market conditions. Generally, payments are made promptly in the automotive industry and in the other markets in which the group operates.

The group applies the simplified approach to measuring expected credit losses under IFRS 9, Financial Instruments, which requires lifetime expected credit losses to be recognised from initial recognition for trade and contract receivables. A provision matrix is used to calculate lifetime expected credit losses using historical loss rates based on days past due and a broad range of forward-looking information, including country and market growth forecasts. This year, expected credit losses on unimpaired trade and contract receivables have increased to £21 million (31st March 2019: £3 million) as a result of the estimated impact of the COVID-19 pandemic on the group, its customers and the countries and markets in which it operates.

Trade receivables are specifically 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. They are written off when there is no reasonable expectation of recovery, based on an estimate of the financial position of the counterparty.

The group's provision matrix for trade and contract receivables is set out below:

	Contract receivables _	Trade receivables					
Year ended 31st March 2020	Total	impaired	Not past due	<30 days overdue	30-90 days overdue	>90 days overdue	Total
Expected credit loss rate (%) Gross carrying value (£ million) Expected credit losses (£ million)	1% 165 (2)	100% 16 (16)	1% 1,132 (15)	2% 86 (2)	7% 17 (1)	11% 12 (1)	1,263 (35)
Net carrying value (£ million)	163					_	1,228
	Contract receivables _			Tr	rade receivables		
Year ended 31st March 2019	Total	Impaired	Not past due	<30 days overdue	30-90 days overdue	>90 days overdue	Total
Expected credit loss rate (%) Gross carrying value (£ million) Expected credit losses (£ million)	43	100% 12 (12)	- 1,094 -	- 80 -	6% 23 (2)	10% 10 (1)	1,219 (15)
Net carrying value (£ million)	43					_	1,204

Movements in the allowance for expected credit losses on trade and contract receivables are as follows:

	2020 £ million	2019 £ million
At beginning of year	15	9
Charge for year	25	9
Utilised	(1)	(2)
Released	(2)	(1)
At end of year	37	15

Notes on the accounts continued

for the year ended 31st March 2020

27 Financial risk management (continued)

Credit risk (continued)

The group's maximum exposure to default on trade and contract receivables is £1,428 million (2019: £1,262 million).

The group's financial assets included in other receivables are all current and not impaired.

The credit risk on cash and deposits and derivative financial instruments is limited because the counterparties with significant balances are banks with strong credit ratings. The exposure to individual banks is monitored frequently against internally-defined limits, together with each bank's credit rating and credit default swap prices. At 31st March 2020, the maximum net exposure with a single bank for cash and deposits was £41 million (2019: £30 million), whilst the largest mark to market exposure for derivative financial instruments to a single bank was £22 million (2019: £7 million). The group also uses money market funds to invest surplus cash thereby further diversifying credit risk and, at 31st March 2020, the group's exposure to these funds was £192 million (2019: £347 million). The amounts on deposit at the year end represent the group's maximum exposure to credit risk on cash and deposits. Expected credit losses on cash and cash equivalents are immaterial.

Foreign currency risk

The group operates globally with a significant amount of its profit earned outside the UK. The main impact of movements in exchange rates on the group's results arises on translation of overseas subsidiaries' profits into sterling. The largest exposure is to the US dollar and a 5% (6.4 cent (2019: 6.6 cent)) movement in the average exchange rate for the US dollar against sterling would have had a £12 million (2019: £13 million) impact on underlying operating profit. The group is also exposed to the euro and a 5% (5.7 cent (2019: 5.7 cent)) movement in the average exchange rate for the euro against sterling would have had a £10 million (2019: £12 million) impact on underlying 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 it operates.

The group matches foreign currency assets and liabilities (where these differ to the functional currency of the relevant subsidiary) to avoid the risk of a material impact on the income statement resulting from movements in exchange rates. The group does, however, have foreign exchange exposure on movements through equity related to cash flow and net investment hedges. A 10% depreciation or appreciation in the US dollar and euro exchange rates against sterling would increase / (decrease) other reserves as follows:

	10% depreciation		10% appreciation	
	2020 £ million	2019 £ million	2020 £ million	2019 £ million
Cash flow hedges	12	6	(15)	(7)
Net investment hedges	21	20	(26)	(25)

For the net investment hedges, these movements would be fully offset in reserves by an opposite movement on the retranslation of the net assets of the overseas subsidiaries.

Investments in foreign operations

To protect the group's sterling balance sheet and reduce cash flow risk, the group has financed most of its investment in the US 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.

The group has designated US dollar and euro loans and a cross currency swap as hedges of net investments in foreign operations as they hedge changes in the value of the subsidiaries' net assets against movements in exchange rates. The change in the value of the net investment hedges from movements in foreign currency exchange rates is recognised in equity and is offset by an equal and opposite movement in the carrying value of the net assets of the subsidiaries. All critical terms of the hedging instruments and hedged items matched during the year and, therefore, hedge ineffectiveness was immaterial. The hedge ratio is 1:1.

Year ended 31st March 2020	US dollar and euro loans¹ £ million	currency swap² £ million	Total £ million
Carrying value of hedging instruments at 31st March 2020	(165)	(6)	(171)
Change in carrying value of hedging instruments recognised in equity during the year Change in fair value of hedged items during the year used to determine hedge effectiveness	(7) 7	(1) 1	(8) 8

Cross

Cross

Notes on the accounts continued

for the year ended 31st March 2020

27 Financial risk management (continued)

Foreign currency risk (continued)

Investments in foreign operations (continued)

Year ended 31st March 2019	US dollar and euro loans¹ £ million	currency swap² £ million	Total £ million
Carrying value of hedging instruments at 31st March 2019	(158)	(5)	(163)
Change in carrying value of hedging instruments recognised in equity during the year Change in fair value of hedged items during the year used to determine hedge effectiveness	(3)	2 (2)	(1)

¹ The designated hedging instruments are the 4.66% €100 million Bonds 2021, \$75 million of the 3.26% \$150 million Bonds 2022 and €17 million of the 2.44% €20 million Bonds 2023.

Forecast receipts and payments in foreign currencies

The group uses forward foreign exchange contracts 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 group's policy is to hedge between 50% and 80% of forecast receipts and payments in foreign currencies.

For hedges of forecast receipts and payments in foreign currencies, the critical terms of the hedging instruments match exactly with the terms of the hedged items and, therefore, the group performs a qualitative assessment of effectiveness. Ineffectiveness may arise if the timing of the forecast transaction changes from what was originally estimated or if there are changes in the credit risk of the group or the derivative counterparty. Hedge ineffectiveness was immaterial during the year. The hedge ratio is 1:1.

Year ended 31st March 2020	US dollar	euro	Other	Total
	£ million	£ million	£ million	£ million
Carrying value of hedging instruments at 31st March 2020 – assets – liabilities	-	1	3	4
	(2)	(3)	(5)	(10)
Change in carrying value of hedging instruments recognised in equity during the year Change in fair value of hedged items during the year used to determine hedge effectiveness	(6) 6		(3) 3	(9) 9
Notional amount ¹	70	111		

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Ctaulina I

Year ended 31st March 2019	Sterling / US dollar £ million	Sterling / euro £ million	Other £ million	Total £ million
Carrying value of hedging instruments at 31st March 2019 – assets – liabilities	1 (1)	2 (1)	2 (1)	5 (3)
Change in carrying value of hedging instruments recognised in equity during the year Change in fair value of hedged items during the year used to determine hedge effectiveness	(3)	1 (1)	(2)	(4) 4
Notional amount ¹	34	106		

¹ The notional amount is the sterling equivalent of the net currency amount purchased or sold.

The weighted average exchange rates on sterling / US dollar and sterling / euro forward foreign exchange contracts are 1.27 and 1.14 (2019: 1.33 and 1.14), respectively. The hedged, highly probable forecast transactions denominated in foreign currencies are expected to occur over the next 12 months.

² The designated hedging instrument is a cross currency swap expiring in 2025 whereby the group pays 2.609% fixed on €77 million and receives 2.83% fixed on £65 million.

Notes on the accounts continued

for the year ended 31st March 2020

27 Financial risk management (continued)

Foreign currency risk (continued)

Foreign currency borrowings

The group has designated a US dollar fixed interest rate to sterling fixed interest rate cross currency swap as a cash flow hedge. This swap hedges the movement in the cash flows on \$100 million of the 3.14% \$130 million bonds 2025 attributable to changes in the US dollar / sterling exchange rate. The currency swap has similar critical terms as the hedged item, such as reference rate, reset dates, payment dates, maturity and notional amount. As all critical terms matched during the year, hedge ineffectiveness was immaterial. The hedge ratio is 1:1. The interest element of the swap is recognised in the income statement each year.

	Cross currer	ncy swap
	2020 £ million	2019 £ million
Carrying value of hedging instruments at 31st March ¹	19	8
Change in carrying value of hedging instruments recognised in equity during the year Change in fair value of hedged items during the year used to determine hedge effectiveness	11 (11)	7 (7)

¹ The designated hedging instrument is a cross currency swap expiring in 2025 whereby the group pays 2.83% fixed on £65 million and receives 3.14% fixed on \$100 million.

Interest rate risk

The group's interest rate risk arises from fixed rate borrowings (fair value risk) and floating rate borrowings (cash flow risk). Its policy is to optimise interest cost and reduce volatility in reported earnings and equity. The group manages its risk by reviewing the profile of debt regularly and by selectively using interest rate swaps to maintain borrowings at competitive rates. At 31st March 2020, 84% (2019: 94%) of the group's net debt was at fixed rates with an average interest rate of 3.6% (2019: 3.1%). The remaining debt is floating rate. Based on the group's net debt at floating rates, after taking into account the effect of the swaps, a 1% change in all interest rates during the current year would have a £2 million impact on the group's profit before tax (2019: immaterial).

The group has designated four (2019: four) fixed rate to floating interest rate swaps as fair value hedges as they hedge the changes in fair value of bonds attributable to changes in interest rates. All hedging instruments have maturities in line with the repayment dates of the hedged bonds and the cash flows of the instruments are consistent. All critical terms of the hedging instruments and hedged items matched during the year and, therefore, hedge ineffectiveness was immaterial. The hedge ratio is 1:1.

2020

2019

	£ million	£ million
Carrying value of hedging instruments at 31st March ¹	15	5
Amortised cost Fair value adjustment	(270) (15)	(259) (5)
Carrying value of hedged items at 31st March ¹	(285)	(264)
Change in carrying value of hedging instruments recognised in profit or loss during the year Change in fair value of hedged items during the year used to determine hedge effectiveness	10 (10)	6 (6)

¹ The hedged items are the 3.26% \$150 million Bonds 2022, 1.40% €77 million Bonds 2025 and 1.81% €90 million Bonds 2028. Interest rate swaps have been contracted with aligned notional amounts and maturities to the bonds with the effect that the group pays an average floating rate of six-month LIBOR plus 0.64% on the US dollar bonds and six-month EURIBOR plus 0.94% on the euro bonds.

Price risk

The group enters into forward precious metal price contracts for the receipt or delivery of precious metal. The group has policies in place to ensure that sales and purchases are matched and, therefore, that it is not exposed to price risk in respect of these contracts.

for the year ended 31st March 2020

27 Financial risk management (continued)

Liquidity risk

The group's policy on funding capacity is to ensure that it always has sufficient long term funding and committed bank facilities in place to meet foreseeable peak borrowing requirements. At 31st March 2020, the group had borrowings under committed bank facilities of £nil (2019: £nil). The group also has a number of uncommitted facilities and overdraft lines at its disposal.

	£ million	£ million
Expiring within one year	125	_
Expiring in more than one year but not more than two years	-	175
Expiring in more than two years	1,000	422
Undrawn committed bank facilities	1,125	597

The maturity analyses for financial liabilities showing the remaining contractual undiscounted cash flows, including future interest payments, at current year exchange rates and assuming floating interest rates remain at the latest fixing rates, are:

At 31st March 2020	Within 1 year £ million	1 to 2 years £ million	2 to 5 years £ million	After 5 years £ million	Total £ million
Bank overdrafts	31	_	_	_	31
Bank and other loans – principal	331	-	528	445	1,304
Bank and other loans – interest payments	30	24	52	24	130
Lease liabilities – principal	12	12	26	26	76
Lease liabilities – interest payments	3	2	5	8	18
Financial liabilities in trade and other payables	2,611	1	2	-	2,614
Total non-derivative financial liabilities	3,018	39	613	503	4,173
Forward foreign exchange contracts – payments	398	-	-	-	398
Forward foreign exchange contracts – receipts	(386)	-	-	-	(386)
Currency swaps – payments	1,236	_	-	_	1,236
Currency swaps – receipts	(1,198)	_		-	(1,198)
Cross currency interest rate swaps – payments	2	2	71	_	75
Cross currency interest rate swaps – receipts	(2)	(2)	(68)		(72)
Total derivative financial liabilities	50	-	3	-	53
At 31st March 2019	Within 1 year £ million	1 to 2 years £ million	2 to 5 years £ million	After 5 years £ million	Total £ million
Bank overdrafts	59	_	_	_	 59
Bank and other loans – principal	184	131	403	529	1,247
Bank and other loans – interest payments	31	27	59	36	153
Financial liabilities in trade and other payables	1,562	1	2	-	1,565
Total non-derivative financial liabilities	1,836	159	464	565	3,024
Forward foreign exchange contracts – payments	227	_	_	-	227
Forward foreign exchange contracts – receipts	(223)	_	_	_	(223)
Currency swaps – payments	612	_	_	_	612
Currency swaps – receipts	(602)	-	-	_	(602)
Cross currency interest rate swaps – payments ¹	2	2	70	_	74
Cross currency interest rate swaps – receipts ¹	(2)	(2)	(70)	_	(74)
Total derivative financial liabilities	14	_	_	_	14

Re-presented to reflect a mutual break clause in the contract which can be exercised by either party in June 2023.

Notes on the accounts continued

for the year ended 31st March 2020

27 Financial risk management (continued)

Offsetting financial assets and liabilities

The group offsets financial assets and liabilities when it currently has a legally enforceable right to offset the recognised amounts and it intends 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 or enforceable master netting arrangements:

At 31st March 2020	assets <i>I</i> (liabilities) £ million	Amounts set off £ million	in balance sheet £ million	Amounts not set off ¹ £ million	Net £ million
Non-current interest rate swaps	34	-	34	(6)	28
Cash and cash equivalents – cash and deposits	112	-	112	-	112
Other financial assets	28	-	28	(21)	7
Cash and cash equivalents – bank overdrafts	(31)	-	(31)	-	(31)
Other financial liabilities	(50)	-	(50)	21	(29)
Non-current borrowings and related swaps	(994)	-	(994)	6	(988)
At 31st March 2019	Gross financial assets / (liabilities) £ million	Amounts set off £ million	Net amounts in balance sheet £ million	Amounts not set off ¹ £ million	Net £ million
Non-current interest rate swaps	13	_	13	(5)	8
Cash and cash equivalents – cash and deposits	95	(5)	90	_	90
Other financial assets	22	-	22	(10)	12
Cash and cash equivalents – bank overdrafts	(64)	5	(59)	_	(59)
Other financial liabilities	(13)	_	(13)	10	(3)
Non-current borrowings and related swaps	(1,073)	-	(1,073)	5	(1,068)

Agreements with derivative counterparties are based on an ISDA Master Agreement. Under these arrangements, whilst the group does not have a legally enforceable right of set off, where certain credit events occur, such as default, the net position receivable from or payable to a single counterparty in the same currency would be taken as owing and all the relevant arrangements terminated.

28 Fair values

Fair value hierarchy

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).

Fair value of financial instruments

Certain of the group's financial instruments are held at fair value. The fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the balance sheet date.

The fair value of forward foreign exchange contracts, interest rate swaps, forward precious metal price contracts and currency swaps is estimated by discounting the future contractual cash flows using forward exchange rates, interest rates and prices at the balance sheet date.

The fair value of trade and other receivables measured at fair value is the face value of the receivable less the estimated costs of converting the receivable into cash.

The fair value of money market funds is calculated by multiplying the net asset value per share by the investment held at the balance sheet date.

There were no transfers of any financial instrument between the levels of the fair value hierarchy during the current or prior years.

for the year ended 31st March 2020

28 Fair values (continued)

Fair value of financial instruments (continued)

	2020 £ million	2019 £ million	Fair value hierarchy Level	Note
Financial instruments measured at fair value				
Non-current				
Investments at fair value through other comprehensive income	49	52	1	14
Interest rate swaps	34	13	2	15
Borrowings and related swaps	(6)	(5)	2	20
Current				
Trade receivables ¹	328	173	2	17
Other receivables ²	72	9	2	17
Cash and cash equivalents – money market funds	192	347	2	
Other financial assets ³	28	22	2	18
Other financial liabilities ³	(50)	(13)	2	18
Financial instruments not measured at fair value				
Non-current				
Borrowings and related swaps	(988)	(1,068)		20
Lease liabilities	(64)	-		25
Current				
Cash and cash equivalents – cash and deposits	112	90		
Cash and cash equivalents – bank overdrafts	(31)	(59)		
Borrowings and related swaps	(331)	(184)		20
Lease liabilities	(12)	_		25

Trade receivables held in a part of the group with a business model to hold trade receivables for collection or sale. The remainder of the group operates a hold to collect business model and receives the face value, plus relevant interest, of its trade receivables from the counterparty without otherwise exchanging or disposing of such instruments.

The fair value of financial instruments, excluding accrued interest, is approximately equal to book value except for:

	20	2020		2019	
	Carrying	Fair	Carrying	Fair	
	amount	value	amount	value	
	£ million	£ million	£ million	£ million	
US Dollar Bonds 2022, 2023, 2025 and 2028	(514)	(496)	(481)	(477)	
Euro Bonds 2021, 2023, 2025 and 2028	(264)	(247)	(251)	(264)	
Euro EIB Ioan 2019 Sterling Bonds 2024 and 2025 KfW US dollar Ioan 2024	(110) (41)	(108) (41)	(107) (110) (38)	(108) (118) (39)	

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

² Other receivables with cash flows that do not represent solely the payment of principal and interest.

 $^{^{\}rm 3}$ Includes forward foreign exchange contracts, forward precious metal price contracts and currency swaps.

Notes on the accounts continued

for the year ended 31st March 2020

29 Share-based payments

After considering expected lapses due to leavers and the probability that performance conditions will not be met, the total expense recognised during the year in respect of equity-settled share-based payments was £5 million (2019: £17 million). The reduction in the expense recognised represents the lower growth in earnings per share achieved during the year ended 31st March 2020 and now forecast for the years ending 31st March 2021 and 2022.

Further details of the directors' remuneration under share-based payment plans are given in the Remuneration Report.

Performance share plan (PSP)

From 2017, shares are awarded to certain of the group's executive directors and senior managers under the PSP based on a percentage of salary and are subject to performance targets over a three-year period.

At 31st March 2020, 1,037,536 shares awarded in 2017, 2018 and 2019 were outstanding (31st March 2019: 684,015 awarded in 2017 and 2018).

The minimum release of 15% of the award is subject to achieving underlying earnings per share (uEPS) growth of 4% compound per annum and the full release is subject to uEPS growing by at least 10% compound per annum. The number of awarded shares released varies on a straight-line basis between these points. Awards lapse if the uEPS growth is less than the minimum. For the 2017 awards, there was no uEPS growth and, therefore, the awards will lapse.

Awards to the executive directors are also subject to a deferred release whereby a third is released on the third anniversary of the award date and the remaining vested shares are released in equal instalments on the fourth and fifth anniversaries of the award date. The Remuneration Committee is entitled to claw back the awards to the executive directors in cases of misstatement or misconduct.

Activity relating to the PSP during the year was:

	awarded shares	awarded shares
utstanding at the start of the year warded during the year orfeited during the year eleased during the year	684,015 442,905 (89,384)	357,562 350,211 (23,647) (111)
nding at the end of the year	1,037,536	684,015

2020

2020

2019

2019

The fair value of the shares awarded during the year under the PSP was 2,964.6 pence per share (2019: 3,442.6 pence per share). The fair value was calculated using a modified Black Scholes model based on the share price at the date of award of 3,210.0 pence (2019: 3,667.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.66% (2019: 2.11%).

At 31st March 2020, the weighted average remaining contracted life of the awarded shares is 1.1 years (2019: 1.5 years).

Restricted share plan (RSP)

From 2017, shares are awarded to certain of the group's senior managers below the board under the RSP based on a percentage of salary. Awards under the RSP are not subject to performance targets. The shares are subject only to the condition that the employee remains employed by the group on the vesting date (three years after the award date).

Activity relating to the RSP during the year was:

	awarded shares	awarded shares
Outstanding at the start of the year Awarded during the year	161,691 125,243	80,047 99,543
Forfeited during the year Released during the year Expired during the year	(29,618) (7,557) (2,738)	(15,270) (2,629)
Outstanding at the end of the year	247,021	161,691

2020

2020

Number of

2019 Number of

2019

Notes on the accounts continued

for the year ended 31st March 2020

29 Share-based payments (continued)

Restricted share plan (RSP) (continued)

The fair value of the shares awarded during the year under the RSP was 2,964.6 pence per share (2019: 3,442.6 pence per share). The fair value was calculated using a modified Black Scholes model based on the share price at the date of award of 3,210.0 pence (2019: 3,667.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.66% (2019: 2.11%).

At 31st March 2020, the weighted average remaining contracted life of the awarded shares is 1.3 years (2019: 1.6 years).

Long term incentive plan (LTIP)

Prior to 2017, shares were awarded to approximately 1,300 of the group's executive directors, senior managers and middle managers under the LTIP based on a percentage of salary and were subject to performance targets over a three-year period.

At 31st March 2020, 71,277 shares awarded in 2016 subject to deferred release as explained below (31st March 2019: 693,691 shares awarded in 2016 and 10,007 shares awarded in 2014 subject to deferred release) were outstanding.

For the 2016 awards, the minimum release of 15% of the award was subject to achieving uEPS growth of 4% compound per annum over the three-year period to 31st March 2019 and the full release was subject to uEPS growing by at least 10% compound per annum. Actual uEPS growth was 7.7%, which represented 67% of the full award. In August 2019, 392,403 shares were released with a further 71,277 shares subject to deferred release.

Awards to the executive directors are subject to a deferred release whereby a third is released on the third anniversary of the award date and the remaining vested shares are released in equal instalments on the fourth and fifth anniversaries of the award date. The Remuneration Committee is entitled to claw back the awards to the executive directors in cases of misstatement or misconduct.

Activity relating to the LTIP during the year was:

	awarded shares	awarded shares
Outstanding at the start of the year Forfeited during the year Released during the year Expired during the year	703,698 (34,059) (402,410) (195,952)	(72,702)
Outstanding at the end of the year	71,277	703,698

Deferred bonus

A proportion of the bonus payable to executive directors and senior managers 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.

Activity relating to the deferred bonus during the year was:

	awarded shares	awarded shares
Outstanding at the start of the year Awarded during the year Released during the year	81,625 42,009 (18,104)	81,781 41,542 (41,698)
Outstanding at the end of the year	105,530	81,625

The fair value of the shares awarded during the year under the deferred bonus was 2,887.0 pence per share (2019: 3,371.0 pence per share). The fair value was calculated using a modified Black Scholes model based on the share price at the date of award of 3,210.0 pence (2019: 3,667.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.66% (2019: 2.11%).

Notes on the accounts continued

for the year ended 31st March 2020

29 Share-based payments (continued)

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 awarded to the employee.

In the UK SIP, if the employee sells or transfers partnership shares within three years of the date of award, 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.

During the year, 227,974 (2019: 190,284) matching shares under the SIP were awarded to employees. These are nil cost awards on which performance conditions are substantially completed at the date of grant and, consequently, the fair value of these awards is based on the market value of the shares at that date.

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 share 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.

During the year, 5,652 (2019: 5,488) shares under the 401k plans were awarded to employees. These are nil cost awards on which performance conditions are substantially completed at the date of grant and, consequently, the fair value of these awards is based on the market value of the shares at that date.

30 Commitments

Group		Parent company	
2020 £ million	2019 £ million	2020 £ million	2019 £ million
41	60	12	5
9	13	-	2
	2020 £ million	2020 2019 £ million £ million	2020 2019 2020 £ million £ million 41 60 12

At 31st March 2020, precious metal leases were £451 million (31st March 2019: £372 million) at year end prices.

31 Contingent liabilities

The group previously disclosed that it had been informed by two customers of failures in certain engine systems for which the group supplied a particular coated substrate as a component for their customers' emissions after-treatment systems. The particular coated substrate was sold to only these two customers. The group has not been contacted by any regulatory authority about these engine system failures. The reported failures have not been demonstrated to be due to the coated substrate supplied by the group. As previously disclosed, we settled with one of these customers on mutually acceptable terms with no admission of fault.

Having reviewed its contractual obligations and the information currently available to it, the group believes it has defensible warranty positions in respect of its supplies of coated substrate for the after-treatment systems in the affected engines remaining at issue. If required, it will vigorously assert its available contractual protections and defences. The outcome of any discussions relating to the matters raised is not certain, nor is the group able to make a reliable estimate of the possible financial impact at this stage, if any. The group works with all its customers to ensure appropriate product quality and we have not received claims in respect of our emissions after-treatment components from this or any other customer. Our vision is for a world that's cleaner and healthier; today and for future generations. We are committed to enabling improving air quality and we work constructively with our customers to achieve this.

2020

2019

Notes on the accounts continued

for the year ended 31st March 2020

32 Transactions with related parties

The group has a related party relationship with its joint venture and associate (note 13), its post-employment benefit plans (note 24) and its key management personnel (below).

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 2020, the GMC had an average of 9 members (2019: 6 members). The only transactions with any key management personnel was compensation charged in the year which was:

	£ million	£ million
Short term employee benefits	6	6
Share-based payments	_	5
Non-executive directors' fees and benefits	1	1
Total compensation of key management personnel	7	12

There were no balances outstanding at 31st March 2020 (2019: £nil). Information on directors' remuneration is given in the Remuneration Report.

Guarantees of subsidiaries' liabilities are disclosed in note 22.

33 Related undertakings

A full list of related undertakings at 31st March 2020 (comprising subsidiaries, joint ventures and associates) is set out below. Those held

	with a cross (+). All the companies are wholly owner	d unless otherwise stated. All the related undertakings are involved in the principal chare class of each related undertaking comprises ordinary shares only. Registered address
+	+ Johnson Matthey Argentina S.A.	Tucumán 1 Piso 4, CP 1049, Buenos Aires, Argentina

+ Johnson Matthey Holdings Limited Johnson Matthey Belgium BVBA Tracerco Europe BVBA The Argent Insurance Co. Limited

Johnson Matthey Brasil Ltda

Stepac Brazil Ltda

Tracerco do Brasil - Diagnosticos de Processos Industriais Ltda

Johnson Matthey Battery Materials Ltd.

Tracerco Radioactive Diagnostic Services Canada Inc. Johnson Matthey Argillon (Shanghai) Emission Control Technologies Ltd.

Johnson Matthey Battery Materials (Changzhou) Co., Ltd.

Johnson Matthey Chemical Process Technologies (Shanghai) Company Limited

Johnson Matthey (China) Trade Co., Ltd

Johnson Matthey Clean Energy Technologies (Beijing) Co., Ltd

Johnson Matthey Process Technologies (Beijing) Co., Ltd.

Johnson Matthey Pharmaceutical Services (Yantai) Co., Ltd.

Johnson Matthey (Shanghai) Catalyst Co., Ltd.

Johnson Matthey (Shanghai) Chemicals Limited

Johnson Matthey (Shanghai) Trading Limited

Johnson Matthey (Tianjin) Chemical Co., Ltd.

Johnson Matthey (Zhangjiagang) Environmental Protection Technology Co., Ltd

Johnson Matthey (Zhangjiagang) Precious Metal Technology Co., Ltd.

64 Lillee Crescent, Tullamarine VIC 3043, Australia

Pegasuslaan 5, 1831 Diegem, Belgium

1731 Zellik, Z3 Doornveld 115, Belgium

Clarendon House, 2 Church Street, Hamilton, HM11, Bermuda Avenida Macuco, 726, 12th Floor, Edifício International Office, CEP04523-001, Brazil

Rua Itapolis, n° 1921, Pacaembu, São Paulo, 01245-000, Brazil

Estrada dos Bandeirantes, 1793, Curicica, Jacarepagua, Rio de Janeiro, Brazil

280 Liberté Ave, Candiac Québec J5R 6X1, Canada

8908 60 Avenue NW, Edmonton AB, T6E 6A6, Canada

No. 298, East Rong Le Road, Songjiang District, Shanghai, China

1 Xin Wei Liu Road, Changzhou Export Processing Zone, Changzhou, Jiangsu Province, China

Room 1066, Building 1, No 215 Lian He Bei Lu, Fengxian District, Shanghai, China

1st, 2nd and 3rd Floor, Building 2, No. 598 Dongxing Road, Songjiang Industrial Zone, Shanghai, China

2007C, 20th Floor, No. 21 Building, No.5 Community, Shuguangxili Lane, Chaoyang District, Beijing, China

Unit No. 2001-2007A, No. 21 Building, Shuquangxili Lane A5, Chaoyang District, Beijing, China

No. 9 Wuxi Road, Yantai Economic and Technology Development Zone, Yantai, Shandong Province, China

586 Dongxing Road, Songjiang Industry Zone, Shanghai, 201613, China

588 Dongxing Road, Songjiang Industry Zone, Shanghai, 201613, China Room 1615B, No. 118 Xinling Road, Shanghai Pilot Free Trade Zone, China

Suite 1-1201, BoRun Commercial Plaza, Tianjin Development Zone, China No. 9 Dongxin Road, Jiangsu Yangtze River International Chemical

Industrial Park, Jiangsu Province, China 48, the west of Beijing Road, Jingang Town, Yangtze River International Chemical Industrial Park, Jiangsu, China

Notes on the accounts continued

for the year ended 31st March 2020

33 Related undertakings (continued)

Qingdao Johnson Matthey Hero Catalyst Company Limited

Shanghai Bi Ke Clean Energy Technology Co Ltd (11.1%)

Shanghai Johnson Matthey Applied Materials Technologies Co., Ltd

Tracerco China Process Diagnostics & Instrumentation (Shanghai) Co., Ltd.

Johnson Matthey A/S

- * AG Holding Ltd
- * Cascade Biochem Limited1 **Ilumink Limited**
- * IMEPS Trustees Limited

Johnson Matthey Battery Systems Engineering Limited Johnson Matthey Davy Technologies International Limited (in liquidation)

- * Johnson Matthey Davy Technologies Limited
- * Johnson Matthey Fuel Cells Limited Johnson Matthey Investments Limited
- * Johnson Matthey (Nominees) Limited
- * Johnson Matthey Precious Metals Limited Johnson Matthey South Africa Holdings Limited Johnson Matthey Tianjin Holdings Limited Matthey Finance Limited
- * Matthey Holdings Limited
- * Tracerco Limited

Finex Ov

Johnson Matthey Finland Oy

Kiinteistö Oy Kotkan Huumantie 5 (70%)

Johnson Matthey SAS

Johnson Matthey Battery Materials GmbH Johnson Matthey Catalysts (Germany) GmbH

Johnson Matthey Chemicals GmbH Johnson Matthey GmbH & Co. KG² Johnson Matthey Holding GmbH Johnson Matthey Management GmbH Johnson Matthey Piezo Products GmbH

Johnson Matthey Redwitz Real Estate (Germany) B.V. & Co. KG² Johnson Matthey Hong Kong Limited

Johnson Matthey Pacific Limited³

Johnson Matthey Process Technologies Holdings Hong Kong

Johnson Matthey Tracerco Holdings Hong Kong Limited

Macfarlan Smith (Hong Kong) Limited

Johnson Matthey Chemicals India Private Limited

Johnson Matthey India Private Limited

Johnson Matthey Limited

Stepac L.A. Ltd.

Johnson Matthey Italia S.r.l. Johnson Matthey Fuel Cells Japan Limited Johnson Matthey Japan Godo Kaisha

Registered address

New Material Industrial Park, Shiyuan Road, Qinda Industrial Park, Chengyang District, Qingdao, 200331, China

Room 427 Building 2 No 351 Guo Shou Jing Road, China (Shanghai) Pilot Free Trade Zone, China

Area A, 1st Floor, Building 7, 298 East Rongle Road, Songjiang District, Shanghai, China

Section G Floor 2, Building 7, 298 East Rongle Road, Songjiang District, Shanghai, China

Lundgrens Advokatpartnerselskab, Tuborg Boulevard 12, 4., 2900 Hellerup,

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

30 Finsbury Square, London, EC2A 1AG

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England 5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

Seppolantie 1, Kotka, 48230, Finland Autokatu 6, 20380 Turku, Finland

c/o Finex Oy, Seppolantie 1, Kotka, 48230, Finland

Les Diamants - Immeuble B, 41 rue Delizy, 93500 Pantin, France

Ostenriederstr. 15, 85368 Moosburg a.d. Isar, Germany Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany

Wardstrasse 17, D-46446 Emmerich am Rhein, Germany

Otto-Volger-Strasse 9b, 65843 Sulzbach, Germany

Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany

Otto-Volger-Strasse 9b, 65843 Sulzbach, Germany

Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany

Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong

Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong

Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon,

Hong Kong Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon,

Hong Kong Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon,

Hong Kong Plot No 6A, MIDC Industrial Estate, Taloja, District Raigad, Maharashtra

410208, India Regus Business Centre, 1st Floor, M-4, South Extension-II, New Dehli, Delhi-DL, 110049, India

13-18 City Quay, Dublin 2, D02 ED70, Ireland

Tefen Industrial Park Bldg. #12, Post Box 73, Tefen, Western Galilee, 2495900, Israel

Corso Trapani 16, 10139, Torino, Italy

5123-3 Kitsuregawa, Sakura-shi, Tochigi, 329-1412, Japan

5123-3 Kitsuregawa, Sakura-shi, Tochiqi, 329-1412, Japan

for the year ended 31st March 2020

33 Related undertakings (continued)

Johnson Matthey DOOEL Skopje

* Johnson Matthey Sdn. Bhd.

Johnson Matthey Services Sdn. Bhd.

Tracerco Asia Sdn. Bhd.

Tracerco Asia Services Sdn. Bhd.

Johnson Matthey de Mexico, S. de R.L. de C.V.

Johnson Matthey Servicios, S. de R.L. de C.V.

Intercat Europe B.V.

Johnson Matthey Advanced Glass Technologies B.V.

Johnson Matthey B.V.

Johnson Matthey Holdings B.V. Johnson Matthey Netherlands B.V.

Johnson Matthey Netherlands 2 B.V.

Matthey Finance B.V.1

Tracerco Norge AS

Johnson Matthey Battery Systems Spólka z ograniczoną odpowiedzialnocścia

Johnson Matthey Poland Spólka z ograniczoną odpowiedzialnocścią

Johnson Matthey Battery Materials Poland Spółka z

ograniczoną odpowiedzialnocścią Macfarlan Smith Portugal, Lda Johnson Matthey Catalysts LLC

International Diol Company (4.3%)

- * Johnson Matthey General Partner (Scotland) Limited
- * Johnson Matthey (Scotland) Limited Partnership²
- * Macfarlan Smith Limited
- * Meconic Limited (in liquidation) Johnson Matthey Singapore Private Limited Johnson Matthey (Proprietary) Limited

Johnson Matthey Research South Africa (Proprietary) Limited

Johnson Matthey Salts (Proprietary) Limited

Johnson Matthey Catalysts Korea Limited

Johnson Matthey Korea Limited

Johnson Matthey AB

Johnson Matthey Formox AB

Johnson Matthey & Brandenberger AG

Johnson Matthey Finance GmbH

Johnson Matthey Finance Zurich GmbH

LiFePO4+C Licensing AG

Johnson Matthey (Thailand) Limited

Johnson Matthey Holdings (Thailand) Limited

Johnson Matthey Services (Trinidad and Tobago) Limited

Stepac Ambalaj Malzemeleri Sanayi Ve Ticaret Anonim Sirketi Johnson Matthey Fuel Cells, Inc.

Registered address

TIDZ Skopje 1, 1041 Ilinden, Macedonia

Suite 16-03, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur Malaysia

Suite 16-03, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia

Suite 16-03, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia

Suite 16-03, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia

Av. de Margues y Av. de la Canada, 2a Etapa Pargue Industrial Bernardo

Quintana, El Marques, Querataro C.P., 76246, Mexico

Av Ramon Rivera Lara 6620, Parque Industrial Juarez, Chihuahua, Mexico

Fregatweg 38, 6222 NZ Maastricht, Netherlands Fregatweg 38, 6222 NZ Maastricht, Netherlands

Otto-Volger-Strasse 9b, 65843 Sulzbach/Ts. Germany

Fregatweg 38, 6222 NZ Maastricht, Netherlands Fregatweg 38, 6222 NZ Maastricht, Netherlands

Fregatweg 38, 6222 NZ Maastricht, Netherlands

Fregatweg 38, 6222 NZ Maastricht, Netherlands

Kokstadflaten 35, 5257 Kokstad, Norway

Plac Marsz. Józefa Piłsudskiego 1, 00-078, Warsaw, Poland

Ul. Alberta Einsteina 6, 44-109, Gliwice, Poland

Plac Marsz. Józefa Piłsudskiego 1, 00-078, Warsaw, Poland

Largo de São Carlos 3, 1200-410 Lisboa, Portugal

1 Transportny Proezd, 660027 Krasnoyarsk, Russia

1st Basic Industrial Road 218, P.O. Box 12021, Jubail Industrial City, 31961, Saudi Arabia

10 Wheatfield Road, Edinburgh, Midlothian, EH11 2OA, Scotland

10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland

10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland

7 Exchange Crescent, Conference Square, Edinburgh, EH3 8AN

4 Shenton Way, #15-01 SGX Centre 2, 068807, Singapore

Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa

Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa

Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa

A-dong 2906-ho, 13 Heungdeok 1-ro, Giheung-gu, Yongin-si, Gyeonggi-do, South Korea

101-2803, Lotte Castle, 109, Mapo-daero, Mapo-gu Seoul, South Korea

Viktor Hasselblads gata 8, 421 31 Västra Frölunda, Göteborg, Sweden

SE-284 80, Perstorp, Sweden

Glatttalstrasse 18, 8052 Zurich, Switzerland Hertensteinstrasse 51, 6004 Lucerne, Switzerland Glatttalstrasse 18, 8052 Zurich, Switzerland

Hertensteinstrasse 51, 6004 Lucerne, Switzerland

1858/12 Interlink Tower, 5th Floor, Debaratna Road, Kwang Bangna Tai, Khet Bangna, Bangkok 10260, Thailand

1858/12 Interlink Tower, 5th Floor, Debaratna Road, Kwang Bangna Tai, Khet Bangna, Bangkok 10260, Thailand

Queen's Park Place, 17-20 Queens Park West, Port of Spain, Trinidad and Tobago

Güzeloba Mah. Rauf Denktaş Cad., No.56/101, Muratpaşa/Antalya, Turkey Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA

Notes on the accounts continued

for the year ended 31st March 2020

33 Related undertakings (continued)

Entity	Registered address
Johnson Matthey Holdings, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Inc. ⁴	Corporation Service Company, 2595 Interstate Drive, Suite 103 PA 17110, USA
Johnson Matthey Japan, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Materials, Inc.	CSC Lawyers Incorporating Service, 2730 Gateway Oaks Drive, Suite 100, Sacramento CA 95833, USA
Johnson Matthey North America, Inc.	Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, 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
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.

34 Changes in accounting policies

This note explains the impact on the group's and parent company's accounts of the adoption of IFRS 16, Leases, that has been applied from 1st April 2019.

IFRS 16 became effective from 1st April 2019, replacing IAS 17, Leases, and related interpretations. Whilst lessor accounting is similar to IAS 17, lessee accounting is significantly different. Under IFRS 16, the group and parent company recognise on the balance sheet a right-of-use asset and a lease liability for future lease payments in respect of all leases unless the underlying assets are of low value or the lease term is 12 months or less. In the income statement, rental expense on the impacted leases is replaced with depreciation on the right-of-use asset and interest expense on the lease liability.

It is unclear whether contracts entered into by the group and parent company to lease metal from third parties constitute leases as defined by IFRS 16. Specifically, it is not clear whether the leased metal represents a defined asset given its fungible nature. However, on the basis that there is no alternative accounting standard applicable to these transactions, the group and parent company have continued to recognise the expense in the income statement on a straight-line basis over the lease term, with no recognition on the balance sheet.

The group and parent company have applied the modified retrospective transition approach and have not restated comparative amounts for the year ended 31st March 2019. Under this approach, the group and parent company have chosen to measure right-of-use assets at 1st April 2019 at an amount equal to the lease liability as adjusted for lease prepayments, accrued lease expenses and onerous lease provisions.

The group and parent company have elected to adopt the following practical expedients on transition:

- not to capitalise a right-of-use lease asset or lease liability where the lease expired before 31st March 2020;
- not to reassess contracts to determine if the contract contains a lease;
- to utilise onerous lease provisions to reduce right-of-use asset values;
- to use hindsight in determining the lease term;
- to exclude initial direct costs from the measurement of the right-of-use asset; and
- · to apply the portfolio approach when determining a discount rate where a group of leases has similar characteristics.

for the year ended 31st March 2020

34 Changes in accounting policies (continued)

Impact of adoption on the primary statements

Group

Income statement

Profit before tax has been reduced by approximately £1 million in the year ended 31st March 2020 as a result of adopting IFRS 16, with operating profit and finance costs increasing by £2 million and £3 million, respectively.

Balance sheet

The following table shows the effect of adopting IFRS 16 on the group's balance sheet at 1st April 2019:

	£ million
Non-current assets Right-of-use assets Other receivables ¹	89 (14)
Total non-current assets	75
Total assets	75
Current liabilities Trade and other payables Lease liabilities	1 (11)
Total current liabilities	(10)
Non-current liabilities Lease liabilities Provisions	(66)
Total non-current liabilities	(65)
Total liabilities	(75)
Net assets	_

¹ Prepayments reclassified as right-of-use assets.

The weighted average incremental borrowing rate applied to lease liabilities was 4.2%.

Cash flow statement

There is no net cash flow impact from the adoption of IFRS 16 for the group. Lease payments of £16 million during the year ended 31st March 2020, including interest, are included in financing rather than operating activities in the consolidated cash flow statement.

Notes on the accounts continued

for the year ended 31st March 2020

34 Changes in accounting policies (continued)

Parent company

Income statement

The adoption of IFRS 16 has not had a material impact on the parent company's profit for the year.

Balance sheet

The following table shows the effect of adopting IFRS 16 on the parent company's balance sheet at 1st April 2019:

	£ million
Non-current assets Right-of-use assets	14
Total non-current assets	14
Total assets	14
Current liabilities Lease liabilities	(3)
Total current liabilities	(3)
Non-current liabilities Lease liabilities Provisions	(12) 1
Total non-current liabilities	(11)
Total liabilities	(14)
Net assets	-

The weighted average incremental borrowing rate applied to lease liabilities was 3.5%.

Impact of adoption on the group's non-GAAP measures

The adoption of IFRS 16 has not had a material impact on the group's non-GAAP measures.

for the year ended 31st March 2020

34 Changes in accounting policies (continued)

Reconciliation between operating lease commitments and lease liabilities

The following tables reconcile between the operating lease commitments disclosed under IAS 17 at 31st March 2019 and the lease liabilities recognised in the balance sheet of the group and parent company on transition to IFRS 16 at 1st April 2019:

Group

	£ million
Future minimum amounts payable under non-cancellable operating leases reported under IAS 17 at 31st March 2019	76
Change in assessment of lease term	22
Low-value or short term leases	(1)
Reclassification of onerous lease provision	1
Impact of discounting lease liabilities	(21)
Lease liabilities recognised on transition to IFRS 16 at 1st April 2019	77
Current	11
Non-current	66
Lease liabilities recognised on transition to IFRS 16 at 1st April 2019	77

Parent company

	£ million
Future minimum amounts payable under non-cancellable operating leases reported under IAS 17 at 31st March 2019 Change in assessment of lease term Reclassification of onerous lease provision	17 1 1
Impact of discounting lease liabilities	(4)
Lease liabilities recognised on transition to IFRS 16 at 1st April 2019	15
Current	3
Non-current	12
Lease liabilities recognised on transition to IFRS 16 at 1st April 2019	15

Notes on the accounts continued

for the year ended 31st March 2020

35 Non-GAAP measures

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. Certain of these measures are financial Key Performance Indicators which measure progress against our strategy.

Definitions

Measure	Definition	Purpose
Sales ¹	Revenue excluding sales of precious metals to customers and the precious metal content of products sold to customers.	Provides a better measure of the growth of the group as revenue can be heavily distorted by year on year fluctuations in the market prices of precious metals and, in many cases, the value of precious metals is passed directly on to customers.
Underlying operating profit ²	Operating profit excluding non-underlying items.	Provides a measure of operating profitability that is comparable over time.
Underlying operating profit margin ^{1, 2}	Underlying operating profit divided by sales.	Provides a measure of how we convert our sales into underlying operating profit and the efficiency of our business.
Underlying profit before tax ²	Profit before tax excluding non-underlying items.	Provides a measure of profitability that is comparable over time.
Underlying profit for the year ²	Profit for the year excluding non-underlying items and related tax effects.	Provides a measure of profitability that is comparable over time.
Underlying earnings per share ^{1, 2}	Underlying profit for the year divided by the weighted average number of shares in issue.	Our principal measure used to assess the overall profitability of the group.
Return on invested capital (ROIC) ¹	Underlying operating profit divided by average total equity, excluding post tax pension net assets, plus average net debt for the same period.	Provides a measure of the group's efficiency in allocating the capital under its control to profitable investments. The group has a long term target of a return on invested capital of 20% to ensure focus on efficient use of the group's capital.
Average working capital days (excluding precious metals) ¹	Monthly average of non-precious metal related inventories, trade and other receivables and trade and other payables (including any classified as held for sale) divided by sales for the last three months multiplied by 90 days.	Provides a measure of efficiency in the business with lower days driving higher returns and a healthier liquidity position for the group.
Free cash flow	Net cash flow from operating activities after net interest paid, net purchases of non-current assets and investments, dividends received from joint venture and associate and the principal element of lease payments.	Provides a measure of the cash the group generates through its operations, less capital expenditure.
Net debt (including post tax pension deficits) to underlying EBITDA	Net debt, including post tax pension deficits and quoted bonds purchased to fund the UK pension (excluded when the UK pension plan is in surplus) divided by underlying EBITDA for the same period.	Provides a measure of the group's ability to repay its debt. The group has a long term target of net debt (including post tax pension deficits) to underlying EBITDA of between 1.5 and 2.0 times, although in any given year it may fall outside this range depending on future plans.

¹ Key Performance Indicator.

Underlying profit measures are before profit or loss on disposal of businesses, gain or loss on significant legal proceedings, together with associated legal costs, amortisation of acquired intangibles, major impairment and restructuring charges and, where relevant, related tax effects. These items have been excluded by management as they are not deemed to be relevant to an understanding of the underlying performance of the business.

for the year ended 31st March 2020

35 Non-GAAP measures (continued)

Underlying profit measures exclude the following non-underlying items which are shown separately on the face of the income statement:

- **Profit or loss on disposal of businesses** The group released a residual provision for environmental liabilities of £2 million which had originally been recognised in respect of the disposal of Johnson Matthey Gold and Silver Refining Holdings in March 2015. The time limit on claims was five years and no claims have been received. In the prior year, the group sold its water disinfection business, Miox. After costs, the net proceeds were £2 million which resulted in a loss on sale of £12 million.
- Gain or loss on significant legal proceedings In April 2019, the group paid £17 million in respect of a settlement with a customer on mutually acceptable terms with no admission of fault relating to failures in certain engine systems for which it supplied a component in the US. The settlement was recognised in the prior year on the basis that it confirmed that the group had a present obligation at the prior year end.
- Amortisation of acquired intangibles Amortisation and impairment of intangible assets which arose on the acquisition of businesses totalled £13 million (2019: £14 million).
- Major impairment and restructuring charges The group recognised the following impairments during the year:
 - Clean Air manufacturing plants Investment in new manufacturing plants in Europe and Asia has allowed the Clean Air sector to consolidate its existing capacity into new, more efficient plants. Specifically, we plan to restructure three of our manufacturing plants. As a result, the carrying value of one of the plants has been impaired, by £42 million to £24 million, based on a fair value less costs of disposal assessment, with our assessment of the market value of the plant based on internal data (level 3 inputs see note 28 for the fair value hierarchy). The other two plants have been impaired by £17 million to £3 million and by £2 million to £11 based on a value in use assessment, with discount rates of 13% and 38%, respectively. The impairment comprises intangible assets (£6 million) and property, plant and equipment (£55 million).
 - Battery Materials LFP business We are focusing our science and innovative solutions on cathode materials that are truly market leading, principally eLNO, our ultra-high energy density cathode material and, in addition, our higher performing lithium iron phosphate (LFP). Sales of LFP declined during the year and we are now refocusing our LFP business on the high value segment of the market to better support our eLNO customers and the development of that business. These changes mean that the carrying value of the Battery Materials LFP cash-generating unit has been impaired, by £57 million, to £3 million based on a value in use assessment. The impairment comprises goodwill (£7 million), intangible assets (£5 million), property, plant and equipment (£35 million), right-of-use assets (£1 million) and trade and other receivables (£9 million). The recoverable amount of £3 million reflects residual working capital balances. The discount rate for the purposes of the value in use assessment was 10.7% (2019: 11.9%).
 - Health capitalised development expenditure During the year, a fundamental review of the Health sector's new product introduction process was undertaken to determine how the business will deliver its strategic plan. The organisation was restructured and new employees were recruited to strengthen the sector's technical capabilities. A detailed review of each molecule was performed which considered all assumptions, including market size, number of competitors, molecular process design and technical feasibility. The assessment resulted in the determination to reprioritise the molecules in the pipeline, focusing on the optimal number of projects to sustain a consistent and predictable new product launch process. Consequently, the development of 21 molecules in the pipeline has been terminated. Development expenditure which had been capitalised in respect of the terminated molecules totalling £20 million has been written off during the year. With a focus on fewer molecules, we have made further progress towards delivering an additional circa £100 million of operating profit from our pipeline of generic and innovator active pharmaceutical ingredients.

In addition to the impairments recognised during the year, consultancy costs of £5 million were incurred in respect of the major restructuring initiatives announced in June 2020 and a write off of inventories of £3 million recognised in the Health sector as part of the group's operational efficiency programme announced in March 2017 was released.

In the prior year, £7 million of a prior year impairment of the Health sector's Riverside site was reversed and, in September 2019, the site was sold, with no gain or loss on disposal.

Notes on the accounts continued

for the year ended 31st March 2020

35 Non-GAAP measures (continued)

Reconciliations to GAAP measures

Sales

See note 1.

Underlying profit measures

profit £ million	before tax £ million	expense £ million	the year £ million
539	455	(72)	383
_	_	-	(10)
			(10)
(140)	(140)	-	(124)
-	-	3	3
388	305	(50)	255
Operating profit £ million	Profit before tax £ million	Tax expense £ million	Profit for the year £ million
566	523	(83)	440
(12)	(12)	4	(8)
(17)	(17)	3	(14)
(14)	(14)	3	(11)
8	8	(2)	6
531	488	(75)	413
	\$\frac{\pmu}{\text{million}}\$ 539 2 (13) (140) 388 Operating profit \(\pmu\) million 566 (12) (17) (14) 8	£ million £ million 539 455 2 2 (13) (13) (140) (140) - 1 - - 388 305 Operating profit before tax £ million 566 523 (12) (17) (17) (17) (14) (14) 8 8	£ million £ million £ million 539 455 (72) 2 2 - (13) (13) 3 (140) (140) 16 - 1 - - - 3 388 305 (50) Operating Profit before tax expense f million f million 566 523 (83) (12) (12) 4 (17) (17) 3 (14) (14) 3 8 8 (2)

Operating

Profit

Profit for

Underlying earnings per share

Underlying profit for the year (£ million) Weighted average number of shares in issue (number) Underlying earnings per share (pence)

2020	2019	
383	440	
192,437,993	192,128,811	
199.2	228.8	

598

104

(202)

(332)

(111)

(13)

52

334

61

(108)

(215)

(86)

_

(13)

Notes on the accounts continued

for the year ended 31st March 2020

35 Non-GAAP measures (continued)

Return on invested capital (ROIC)

Net cash inflow from operating activities

Purchases of intangible assets

Purchases of property, plant and equipment

Proceeds from sale of assets held for sale Proceeds from sale of non-current assets Principal element of lease payments

Interest received

Interest paid

Free cash flow

	2020 £ million	2019 £ million
Underlying operating profit	539	566
Average net debt Average equity	1,489 2,733	1,128 2,541
Average capital employed Less: Average pension net assets Less: Average related deferred taxation	4,222 (212) 32	3,669 (251) 41
Average capital employed (excluding post tax pension net assets)	4,042	3,459
ROIC (excluding post tax pension net assets) ROIC	13.3% 12.8%	16.4% 15.4%
Average working capital days (excluding precious metals)		
	2020 £ million	2019 £ million
Inventories Trade and other receivables Trade and other payables	1,902 2,077 (2,745)	1,316 1,553 (1,647)
Total working capital Less: Precious metal working capital	1,234 (597)	1,222 (590)
Working capital (excluding precious metals)	637	632
Average working capital days (excluding precious metals)	63	59
Free cash flow		
	2020 £ million	2019 £ million

Notes on the accounts continued

for the year ended 31st March 2020

35 Non-GAAP measures (continued)

Net debt (including post tax pension deficits) to underlying EBITDA

	2020 £ million	2019 £ million
Cash and deposits Money market funds Bank overdrafts	112 192 (31)	90 347 (59)
Cash and cash equivalents Borrowings and related swaps – current Borrowings and related swaps – non-current Interest rate swaps – non-current Lease liabilities – current Lease liabilities – non-current	273 (331) (994) 34 (12) (64)	378 (184) (1,073) 13 -
Net debt	(1,094)	(866)
(Decrease) / increase in cash and cash equivalents Less: Increase in borrowings Less: Principal element of lease payments	(103) (12) 13	74 (241) -
Increase in net debt resulting from cash flows New leases, remeasurements and modifications Lease disposals Exchange differences on net debt Other non-cash movements	(102) (13) 1 (47) 10	(167) - - (26) 6
Movement in net debt Net debt at beginning of year Impact of adoption of IFRS 16	(151) (866) (77)	(187) (679) –
Net debt at end of year	(1,094)	(866)
Net debt Add: Pension deficits Add: Related deferred tax	(1,094) (53) 10	(866) (56) 10
Net debt (including post tax pension deficits)	(1,137)	(912)
Underlying operating profit Add back: Depreciation and amortisation excluding amortisation of acquired intangibles	539 166	566 157
Underlying EBITDA	705	723
Net debt (including post tax pension deficits) to underlying EBITDA	1.6	1.3

36 Events after the balance sheet date

The impact of the COVID-19 pandemic on the group's operations is discussed in the risks and uncertainties section on page 69 and its impact on the carrying value of certain assets at 31st March 2020 is discussed on page 142. The group has tested its performance under a deep recession scenario and stress tested with a more extreme very deep recession scenario. Subsequent to the balance sheet date, the group has monitored its trading performance and external factors, such as changes in government restrictions. Key estimates and judgements that impact the balance sheet at 31st March 2020 have been updated to reflect the impact of COVID-19 in the period since 31st March 2020.

The following non-adjusting events have also been identified in the period since 31st March 2020:

- In April 2020, the group secured a further \$300 million of funding from the US private placement market for the next five to seven years; and
- The group secured access to the Bank of England's COVID Corporate Financing Facility (CCFF), with an allocated issuer limit of £300 million which provides additional back-stop liquidity for the next year if needed.

Independent auditors' report

to the members of Johnson Matthey Plc



Report on the audit of the financial statements

Opinion

In our opinion:

- Johnson Matthey Plc's group financial statements and parent company financial statements (the "financial statements") give a true and fair view of the state of the group's and of the parent company's affairs as at 31 March 2020 and of the group's profit and cash flows for the year then ended:
- the group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and Accounts (the "Annual Report"), which comprise: the Consolidated and Parent Company Balance Sheets as at 31 March 2020; the Consolidated Income Statement and Consolidated Statement of Total Comprehensive Income; the Consolidated Cash Flow Statement and the Consolidated and Parent Company Statement of Changes in Equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit Committee.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the parent company.

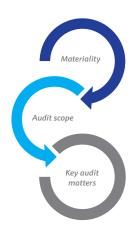
Other than those disclosed in note 3 to the financial statements, we have provided no non-audit services to the group or the parent company in the period from 1 April 2019 to 31 March 2020.

Independent auditors' report continued

to the members of Johnson Matthey Plc

Our audit approach

Overview



- Overall group materiality: £24 million (2019: £25 million), based on approximately 5% of the
 three-year average profit before tax, adjusted for loss on disposal of businesses, loss on significant
 legal proceedings, major impairment and restructuring charges.
- Overall parent company materiality: £18 million (2019: £15 million), based on approximately 1% of total assets but capped at the maximum allocation of group materiality to a component.
- We conducted a full scope audit or specified procedures at 66 components which together accounted for 87% of group revenue and 76% of group profit before taxation.
- We maintained regular contact with our component teams and evaluated the outcome of their audit work.
- Carrying value of goodwill, and capitalised development costs (group, company)
- · Refinery metal accounting (group, company)
- Taxation accounting (group)
- Claims, uncertainties and other provisions (group)
- Covid-19 (group, company)

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

Capability of the audit in detecting irregularities, including fraud

Based on our understanding of the group and industry, we identified that the principal risks of non-compliance with laws and regulations related to the failure to comply with international tax regulations, environmental regulations, health and safety regulations (EHS), and anti-bribery and corruption laws, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries and management bias in accounting estimates. The group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work. Audit procedures performed by the group engagement team and/or component auditors included:

- Discussions with management, internal audit and the group's legal advisors, including consideration of known or suspected instances of non-compliance with laws and regulations and fraud;
- Assessing management's significant judgements and estimates in particular those relating to the carrying value of goodwill and capitalised
 development costs, refinery metal accounting, tax matters and provisions, and the disclosure of significant items in underlying profit; and
- Identifying and testing manual journal entries, in particular any journal entries posted with unusual account combinations.

There are inherent limitations in the audit procedures described above, and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

to the members of Johnson Matthey Plc

Key audit matters

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

Key audit matter

Carrying value of goodwill and capitalised development costs

Refer to the Significant issues considered by the Audit Committee on page 98 and Accounting Policies and notes 3, 10 and 11 to the financial statements.

The group holds goodwill of £580 million (2019: £578 million) and capitalised development costs of £78 million (2019: £75 million) at 31 March 2020.

The group has significant goodwill arising from the acquisition of businesses and the carrying value is dependent on the financial performance of the cash generating unit to which it relates.

The group also has significant capitalised development costs, most notably in the Health business, which are at an early stage of their commercial life cycle and, as such, carry a greater risk that they will not be commercially viable.

The impairment reviews performed by management constitute a significant estimate, and changes in the assumptions can result in materially different impairment charges or available headroom. Certain assets are subject to annual impairment assessment, while others with a finite life are reviewed if a triggering event has been identified.

The impairment assessments prepared by management reflect its best estimates of the impact of COVID-19 on future forecasts and key assumptions. The nature of these estimates mean that they are inherently judgemental and therefore an area of focus in our audit procedures.

Management included enhanced disclosure to explain its key judgements and estimates as part of the Accounting Policies and in note 10.

How our audit addressed the key audit matter

Goodwill – We obtained management's value in use goodwill impairment models and tested and evaluated the reasonableness of key assumptions, operating cash flow forecasts, long term growth rates, and discount rates.

We agreed the forecast cash flows to Board approved budgets which had been updated to reflect the estimated impact of COVID-19, assessed how these budgets are compiled and understood key related judgements and estimates. This included those assumptions and models used to forecast the impact of COVID-19. Further information is provided in our COVID-19 key audit matter.

We assessed management's historical forecasting accuracy by comparing the prior year forecasts with actual results. This informed the assumptions applied to our independent sensitivity analysis.

We performed work over each material CGU. The nature and extent of work was commensurate with the level of headroom and sensitivity of the CGU to impairment. Our testing was focused on the key assumptions in management's latest forecasts and we corroborated the assumptions to supporting evidence (which included both internal and external sources of evidence).

We engaged our valuations experts to assess the long-term growth rate and discount rate for each CGU by comparison with third party information, past performance and relevant risk factors. Our procedures included considering the overall level of risk in the future cash flow projections.

We tested the mathematical integrity of the forecasts and of the value in use model, audited the allocation of central costs to the CGUs and agreed the carrying values in management's impairment models to underlying accounting records.

We assessed management's sensitivity analysis and performed our own independent sensitivity analysis to assess whether a reasonable downside change in the key assumptions could give rise to a material impairment.

Capitalised development costs – We obtained the impairment trigger assessment and the impairment models for a sample of the molecules from management. Management performed a detailed review of each molecule and terminated the development of 21 molecules. Management has assumed the net realisable value to be £nil based on the intention not to bring the molecules to market. We selected a sample of molecules that continue to be developed, and tested management's key assumptions including the market size, forecast market share and operating margin expected for each product. We corroborated certain assumptions to external data points and performed sensitivity analysis for other data points.

As a result of our work, we agreed with management's conclusions with respect to the recoverability of the goodwill and capitalised development costs and the impairments recognised.

We have assessed management's disclosures in light of the impairment testing performed and the impact of COVID-19.We consider the disclosures made to be reasonable and to appropriately present the sensitivities relevant to the goodwill.

Independent auditors' report continued

to the members of Johnson Matthey Plc

Key audit matter

Refinery metal accounting

Refer to the Significant issues considered by the Audit Committee on page 99 and to the Accounting Policies in the financial statements.

The group refines a significant amount of metal. Complex estimates are applied in determining the year-end inventory balances including:

- Estimation of the level of metal contained in the carrier material entering the refining process, the refined metal that leaves the refining process, and the residual metal balance at year end;
- (ii) Estimates of the metal at the refineries at the time of stock takes, and the subsequent sampling and assaying to assess the precious metal content on stock take date;
- (iii) Estimates of the process losses of precious metals that may be lost during the refining and fabrication process, and the adequacy of these provisions at year-end; and
- (iv) Estimates of the net realisable value of unhedged metal held at year-end

As part of its refining activities, the group processes material on behalf of third parties, whereby the group must return pre-agreed recoverable quantities of refined metal to those parties at an agreed date. Any metal retained in excess of this pre-agreed quantity is retained by the group. As such, the group's year-end metal inventory is reduced or increased dependent on its ability to recover metal as part of its refining operations.

The majority of metal processed at refineries is owned by customers and is not held on the financial balance sheet of the group. As such, the group performs a metal balance sheet reconciliation to ensure quantities of precious metals held at year-end are appropriately understood, classified as either owned by Johnson Matthey or the customer and reconciled to its financial position.

This ensures that only the group owned inventory is recorded on the balance sheet, and that the price allocated to this owned inventory is at the lower of cost and net realisable value.

The refining process and its associated estimates are deemed a significant risk, as a small variation in underlying estimates or classification could result in a material change to the quantity or valuation of inventory.

How our audit addressed the key audit matter

We evaluated the design and operation of key controls at the main refining locations over stock takes, and metal assaying procedures.

We tested that the metal balance sheet was prepared and reviewed on a monthly basis.

We tested the classification of precious metals at year-end on the metal balance sheet, to determine if metal was owned by the group or the customer. Our procedures included sending confirmations to customers, and testing the customer metal that was in the refining process, but not contractually due.

We assessed management's policy for recognising stock take gains and losses arising from the stock takes that occurred during the year. We attended physical stock counts (in person, or virtually, using live-feed video equipment) at sites where these were performed by management. The purpose was to verify existence of inventory and adherence to the group's stock take processes, and the reasonableness of stock take gains and losses that have been recorded at these sites.

We assessed the underlying controls that have been implemented by management, to monitor potential inventory gains or losses through the refining process.

We assessed provisions for inventory process losses compared to historical trends and stock take results, to assess the likelihood and quantum of processing losses (if any) of metal between the date of the stock take and the year-end date.

We tested that all unhedged metal was being held at the lower of cost and net realisable value, on an individual metal by metal methodology, with reference to external metal price data.

We considered the adequacy of the group's disclosures about the degree of estimation involved in arriving at the value of metal inventory.

We are satisfied that the metal inventory balances were appropriately recognised at a supportable value, and in line with relevant group accounting policies.

to the members of Johnson Matthey Plc

Key audit matter

Taxation accounting

Refer to the Significant issues considered by the Audit Committee on page 99 and the Accounting Policies in the financial statements.

The group operates in a number of international jurisdictions, and as a result there is risk of uncertain tax exposures arising around the group, as well as heightened risk around estimates in determining the tax effect of cross border transactions including transfer pricing arrangements.

The group adopted IFRIC 23, 'Uncertainty over Income Tax Treatments', for the period commencing 1 April 2019, resulting in a £5 million adjustment to retained earnings as at 1 April 2019. As at 31 March 2020 the group had current income tax liabilities of £106 million (2019: £130 million) including tax provisions of £106 million (2019: £102 million). Management's estimate of the range of possible outcomes is an increase in those liabilities by £106 million (2019: £60 million) to a decrease of £90 million (2019: £61 million).

Where the precise impact of the tax laws and regulations on taxes payable with respect to profit arising in those jurisdictions is unclear, the group seeks to make reasonable estimates to determine the most likely amount in a range of possible outcomes.

There is inherent judgement and estimation uncertainty involved in determining provisions for uncertain tax positions, as described by management in the accounting policies to the financial statements.

How our audit addressed the key audit matter

We engaged our tax specialists in support of our audit of tax and obtained an understanding of the group's tax strategy and risks. We recalculated the group's tax provisions and determined whether the treatments adopted were in line with the group's tax policies and had been applied consistently.

We evaluated the key underlying assumptions and judgements, including considering the status of tax authority audits and enquiries through examining the latest correspondence and enquiring of management, and where applicable management's advisors. We considered the basis and support in particular for provisions not subject to tax audit, in comparison with our experience of similar situations.

We discussed the recognition of specific uncertain tax positions with third-party tax advisors appointed by management to verify the key assumptions, judgements and likely outcome with respect to specific uncertain tax positions recognised. In particular, we assessed management's adoption of IFRIC 23 and confirmed the appropriateness of management's application of either a single best estimate, or a weighted average range of outcomes, for each exposure, as driven by the facts and circumstances.

We evaluated the consistency of management's approach to identifying triggering events to reassess or record a provision for an exposure.

We also evaluated the consistency of management's approach to establishing or changing prior provision estimates and validated that changes in provisions established in previous periods reflected a change in facts and circumstances.

Our in-scope components performed audit work on the local tax expense and completeness of the corresponding liability or asset position.

We also considered the adequacy of the group's disclosures in respect of tax and uncertain tax positions.

We are satisfied that the group's provisions with respect to uncertain tax matters have been prepared on a reasonable basis that represent management's current best estimate of the most likely outcome.

We consider the disclosures with respect to tax matters to be appropriate.

Claims, uncertainties and other provisions

Refer to the Significant issues considered by the Audit Committee on page 99 and notes 22 and 31 to the financial statements

This risk covers warranty provisions, product liability issues, and other litigious matters across the group.

Due to the complex nature of the products offered by Johnson Matthey, the group at any point in time may be exposed to product liability issues including claims for damages or compensation. The identification of when such claims arise and the assumptions relating to these claims are inherently judgemental. Careful consideration needs to be given as to how the claim and any potential exposure are estimated and subsequently accounted for.

The group is also involved in various legal proceedings, including actual or threatened litigation and regulatory investigations.

The group discloses such risks as contingent liabilities where it is unable to make a reliable estimate of potential exposures or where it believes a possible outflow is not probable. If the group is unable to defend against such claims, these risks could give rise to a future liability.

For litigation provisions, we read the summary of major litigation matters provided by management and held discussions with group and sector level general counsel. For a sample of matters, we obtained and reviewed correspondence with external legal counsel with respect to matters included in the summary.

We have circularised external legal counsel to independently assess legal exposures and the expected outcome for material cases across the group.

We reviewed board minutes and made inquiries of management to address the risk of undisclosed claims and uncertainties. We performed audit procedures to identify any third party legal counsel used by management and as appropriate included them in our circularisation.

We have assessed the underlying assumptions underpinning product liability claims by considering past history in the settlement of such claims as evidence of likely settlement of open matters. We applied professional scepticism in auditing both the likely outcome and quantification of exposures, including performing audit procedures over claims management determined to be immaterial.

We have assessed the level of provisioning and contingent liability disclosures, where relevant, in response to known claims.

Based on the procedures outlined, we are satisfied that management's provisioning estimates are adequately supported and appropriate disclosures have been included within the financial statements.

Independent auditors' report continued

to the members of Johnson Matthey Plc

Key audit matter

COVID-19

Refer to the Significant issues considered by the Audit Committee on page 98 and the Accounting Policies in the financial statements.

The COVID-19 pandemic has had a considerable impact on the recent operational performance of the Johnson Matthey group. Each of the group's sectors has been impacted to differing extents and the extent of the impact on future performance is difficult to predict. Therefore, there is inherent uncertainty in determining the impact of the pandemic on certain aspects of the financial statements. In the Accounting Policies note in the financial statement smanagement has provided further detail on the key financial statement estimates and areas of the financial statements that are expected to be impacted.

The key impacts of COVID-19 on the Johnson Matthey group and parent company financial statements are described below:

- (i) The budgets and models supporting the goodwill and asset impairment assessments have been updated to reflect management's best estimate of the impacts of COVID-19. The assumptions applied in this analysis have been determined internally, however they incorporate views of external commentators and other third party data sources, where relevant. The models have been prepared assuming two key scenarios, a deep global recession, and a severe but plausible downside scenario reflecting a very deep global recession.
 - These models are key estimates that also underpin management's going concern and viability assessment and form the basis of management's impairment assessments. Reference should be made to management's going concern and viability statements and the Accounting Policies.
- (ii) The majority of Clean Air manufacturing sites outside of China were temporarily closed from March to May 2020 due to the impacts of COVID-19. This was deemed a triggering event for impairment assessment. Management reflected the reduction in forecast manufacturing levels relative to budget in preparing its assessment, and concluded that none of the assets should be impaired (excluding the plants that had already been assessed and impaired as part of management's optimisation of the manufacturing footprint). Refer to note 9 of the financial statements.
- (iii) The group has net £1,391 million of receivables and contract assets, and therefore small adjustments to the expected credit loss could give rise to material losses. Management has estimated the group's exposure to credit risk across trade and contract receivables considering the impact of COVID-19 on its customer base. Although historical trends and the group's customer credit worthiness indicate very low credit risk (see note 27) management has determined that the expected credit loss is now greater given general economic uncertainty. Management's total provision has increased from £15 million to £35 million to anticipate a greater risk of default as a result of COVID-19.

How our audit addressed the key audit matter

(i) The cash flow forecast models used across the goodwill impairment, going concern and viability modelling and fixed asset impairment assessment are consistent to one another.

For our work over goodwill, reference should be made to the earlier Key Audit Matter. The work performed to assess historical forecast accuracy over goodwill was also relevant to other areas where an estimate is reliant on the forecast, such as going concern.

Our audit procedures over management's going concern assessment included:

- For each sector we challenged the key assumptions in the deep and very deep recession models, and either agreed them to external data points (such as the outlook for the automotive sector) or corroborated them to internally generated assumptions (such as a reduction in variable costs in line with revenue declines). Management's going concern assessment on page 65 includes the most significant assumptions. Our procedures included assessing the expected movement in precious metal working capital, as this benefitted the group's net debt over the going concern period;
- We considered the group's available financing and maturity profile to assess liquidity through the assessment period;
- We reviewed each debt agreement to assess the terms and conditions in order to identify either explicit covenants or any conditions precedent. The covenants and period of assessment were each consistent with management's own understanding;
- We tested the mathematical integrity of the forecasts and the models and reconciled them to the Board approved budgets;
- We performed our own independent sensitivity analysis to assess further appropriate downside scenarios. We confirmed that a significant reduction, beyond the downside case, would be required before any covenant breach; and
- We assessed the reasonableness of management's planned or potential mitigating actions

Our conclusions in respect of going concern are set out separately within this report.

- (ii) We obtained the asset impairment trigger assessment and value in use impairment models prepared by management and performed the following:
 - We compared the forecast models to those used in the goodwill impairment assessment; and
 - We considered the level of headroom on each site relative to the underlying assets, as well as considering how sensitive the headroom might be to changes in assumptions.

Our audit procedures demonstrated significant headroom on all assets even under the severe but plausible downside scenario.

to the members of Johnson Matthey Plc

Key audit matter

COVID-19 (continued)

(iv) UK pension assets include a property fund of £62 million (relative to pension assets of £2 billion). On 20 March 2020 investment activity on this fund was frozen given the inability to obtain any relevant market data for comparable property transactions. The fund valuation provided by the fund manager included a statement to highlight the material uncertainty in the valuation derived as a result of COVID-19. Management has concluded that the fund value is materially accurate on the basis that any impacts of COVID-19 would be short-term and not impact the longer-term value of the investments. See note 24 to the financial statements.

In addition, management's ways of working, including the operation of controls, has been impacted by COVID-19 as a result of a large number of staff remote working. For example, this has meant virtual review meetings replaced in person meetings and certain planned inventory counts were performed after the year end . There is inevitably an increase in risk due to the remote accessing of IT systems, and a potentially heightened cyber risk.

How our audit addressed the key audit matter

- (iii) We evaluated management's assessment of the composition of receivables (by counter party, amount and ageing) and considered the past experience of credit loss as well as forward-looking information (such as the credit ratings of automotive manufacturers) that management had applied. We assessed the specific updates for COVID-19 through:
 - Reviewing the sector by sector assessment that considered latest credit rating information taking into account the current expected impact of COVID-19 and compared this to the updated credit loss percentage.
 - We recalculated the implied bad debt provision using the higher expected credit loss percentage.

The overall expected credit loss remains low and the final expected credit loss provision is immaterial which is as expected given the nature of the group's customer base and past success in credit collection.

(iv) We received an independent confirmation from the fund manager, which confirmed that the property fund had been frozen, and that due to an absence of observable transactions there was a material uncertainty in the asset valuation. We understand that this cautionary statement is being suggested for inclusion in line with guidance from the Royal Institute of Chartered Surveyors, but still constitutes the best available valuation. We considered the nature of the investment, the duration it is expected to be held, and the overall size of the fund and concluded that the risk of a material devaluation event over the medium to long term is sufficiently low. Management has included disclosures in note 24.

We have performed additional procedures to assess any control implications arising from the impact of the pandemic, including inquiries with respect to the operation of IT and business process controls, and whether there has been any impact on the group given the heightened cyber risk.

Based on the inquiries performed and the results of our planned audit procedures, we did not identify any evidence of material deterioration in the control environment.

We increased the frequency and extent of our oversight over component audit teams, using video conference and remote working paper review, to satisfy ourselves as to the appropriateness of audit work performed at significant and material components.

With respect to inventory counts, where management did not perform counts at the year-end date, we have performed counts at different dates and rolled them back or forward to 31 March 2020. Where material inventory counts were performed at the year end date, we attended those counts virtually using live-feed video equipment.

We considered the appropriateness of management's disclosures in the financial statements regarding the impact of the current environment and the increased uncertainty on its accounting estimates and deemed these to be appropriate.

Independent auditors' report continued

to the members of Johnson Matthey Plc

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the group and the parent company, the accounting processes and controls, and the industry in which they operate.

As a result of the impacts of COVID-19, certain countries were placed under restrictive government lockdowns for the duration of our audit which impacted the way we conducted our work, with more procedures being performed remotely and additional work being performed to address the requirements of ISA 500, Considering the Relevance and Reliability of Audit Evidence. In practice, this meant some component teams were able to attend client sites once restrictions permitted, or they had original documentation sent to them electronically or by post. For others, we were able to obtain sufficient, appropriate evidence remotely given more than one piece of audit evidence could be obtained to support the same transaction. In addition, we had to delay and/or modify our planned inventory counting procedures in some countries in response to COVID-19 restrictions, obtaining sufficient, appropriate audit evidence in alternative ways.

The group is structured across four sectors, Clean Air, Efficient Natural Resources, Health, and New Markets, as well as the Corporate central unit. The financial statements are a consolidation of approximately 315 Business Units. We have identified each individual Business Unit as a component, or a series of Business Units where they map to one legal statutory entity. These components comprise the group's operating businesses and holding companies across the four sectors and Corporate. Based on our risk and materiality assessments, we determined which components required an audit of their complete financial information having considered the relative significance of each entity to the group, locations with significant inherent risks and the overall coverage obtained over each material line item in the consolidated financial statements. We identified three components which, in our view, required an audit of their complete financial information, due to size or risk characteristics. During the audit we responded to the impacts of COVID-19 by refining our scope in one country to remove two audits from scope and convert one other to an audit of specified procedures. We performed specified procedures over certain line items that were most material to the group (revenue, cost of sales, accounts receivable, cash, inventory) and tested manual journal entries, the residual line items not subject to audit were not material in the context of the group audit. After making these changes we performed audits of complete financial information at a further 51 components. In addition to those full scope components, we performed specified procedures at 15 components over specific financial statement line items including revenue, trade and other receivables and deferred income, cash, intangibles, inventory, metal inventory, accruals, fixed assets and depreciation, cost of sales and operating expenses. This ensured that appropriate audit procedures were performed to achieve sufficient coverage over these financial statement line items. The total 66 in-scope components are located in numerous countries around the world. We used local teams in these countries to perform the relevant audit procedures. Of these, three components have been determined to be financially significant based on their contribution to the group. These financially significant components are located in the UK, the US, and Macedonia. The group consolidation, financial statement disclosures and corporate functions were audited by the group audit team. This included our work over the consolidation, litigation provisions, centrally recognised tax balances, goodwill, post-retirement benefits, earnings per share and treasury related balances. This scope of work, together with additional procedures performed at the Group level, accounted for 87% of Group revenue and 76% of Group profit before taxation. This provided the evidence we needed for our opinion on the consolidated financial statements taken as a whole. This was before considering the contribution to our audit evidence from performing audit work at the group level, including disaggregated analytical review procedures, which covers certain of the group's smaller and lower risk components that were not directly included in our group audit scope. We issued formal written instructions to all component auditors setting out the audit work to be performed by each of them. Throughout the year, the group audit team held regular meetings with all reporting units at all stages of the audit to direct and supervise the work of these local teams and to ensure that we had a full and comprehensive understanding of the results of their work – particularly insofar as it related to the identified areas of focus. The group engagement team also reviewed selected audit working papers for certain component teams. As a result of COVID-19 we did not visit any teams (we visited UK, US and China in the prior year) instead we conducted frequent video conferences with the PwC teams.

to the members of Johnson Matthey Plc

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Considering COVID-19 and the impact on the group's profit before tax, we have changed our approach to determining materiality since the prior year. Based on our professional judgement, we have now applied a three year average profit before tax, adjusted for loss on disposal of businesses, loss on significant legal proceedings, major impairment and restructuring charges, (2019: single year applying the same metric) to determine our materiality for the financial statements as a whole. Our approach to determining parent company materiality has remained the same as in the prior year.

	Group financial statements	Parent company financial statements
Overall materiality	£24 million (2019: £25 million).	£18 million (2019: £15 million).
How we determined it	Approximately 5% of three-year average profit before tax, adjusted for loss on disposal of businesses, loss on significant legal proceedings, major impairment and restructuring charges.	Approximately 1% of total assets, capped at the maximum allocation of group materiality to a component.
Rationale for benchmark applied	Adjusted (underlying) profit before tax is used as the materiality benchmark excluding amortisation of acquired intangibles. Management uses this measure as it believes that it reflects the underlying performance of the group and this is how the directors are measured on their performance. We did not adjust profit before tax to add back amortisation of acquired intangibles as in our view this is a recurring item.	We considered total assets to be an appropriate benchmark for the parent company given that, whilst it does include trading businesses, it is the ultimate holding company, holds material investments in subsidiary undertakings, incurs corporate costs and enters into financing on behalf of the group. The materiality level was capped at £18 million given overall group materiality.

For each component in the scope of our group audit, we allocated a materiality that is less than our overall group materiality. The range of materiality allocated across components was between £1 million and £18 million. Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £1.3 million (2019: £1.26 million) for both the group and parent company audits, as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Going concern

In accordance with ISAs (UK) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the group's and the parent company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's and parent company's ability to continue as a going concern.
We are required to report if the directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.	We have nothing to report.

Independent auditors' report continued

to the members of Johnson Matthey Plc

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006 (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 March 2020 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. (CA06)

In light of the knowledge and understanding of the group and parent company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report. (CA06)

The directors' assessment of the prospects of the group and of the principal risks that would threaten the solvency or liquidity of the group. We have nothing material to add or draw attention to regarding:

- The directors' confirmation on page 67 of the Annual Report that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity.
- · The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The directors' explanation on page 75 of the Annual Report as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the directors' statement that they have carried out a robust assessment of the principal risks facing the group and their statement in relation to the longer-term viability of the group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the "Code"); and considering whether the statements are consistent with the knowledge and understanding of the group and parent company and their environment obtained in the course of the audit. (Listing Rules)

Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the directors, on page 90, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the group's and parent company's position and performance, business model and strategy is materially inconsistent with our knowledge of the group and parent company obtained in the course of performing our audit.
- The section of the Annual Report on pages 95 to 102 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The directors' statement relating to the parent company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. (CA06)

to the members of Johnson Matthey Plc

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Responsibilities of Directors set out on page 127, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditors' responsibilities for the audit of the financial statements

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

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

Use of this report

This report, including the opinions, has been prepared for and only for the parent company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

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

- we have not received all the information and explanations we require for our audit; or
- 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
- certain disclosures of directors' remuneration specified by law are not made; or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the Audit Committee, we were appointed by the directors on 26 July 2018 to audit the financial statements for the year ended 31 March 2019 and subsequent financial periods. The period of total uninterrupted engagement is two years, covering the years ended 31 March 2019 and 31 March 2020.

Mark Gill (Senior Statutory Auditor)

for and on behalf of PricewaterhouseCoopers LLP Chartered Accountants and Statutory Auditors London

11 June 2020