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News Release

Thursday 11th June 2020, 7.00 am

Preliminary results for the year ended 31st March 2020
Confident in the strength of our business

Robert MacLeod, Chief Executive, commented:
COVID-19 has brought unprecedented challenges to the world and Johnson Matthey. During this pandemic, we have tried to balance the needs of all of our stakeholders but our first priority remains the health and safety of our people, customers, suppliers and communities where we operate. I would like to say a heartfelt thank you to all of our employees for their dedication and efforts over the past few months.

Our business is resilient and diverse, serving a range of end markets and geographies. We made good progress in 2019/20 and delivered operating performance slightly ahead of market expectations, excluding the effects of COVID-19 which adversely impacted underlying operating profit by around £60 million. We took immediate and decisive action to protect our business, and to maintain good liquidity and a strong balance sheet. Looking forward, we are accelerating our strategy to drive greater efficiency across the business, building upon the investments we have made in new manufacturing facilities and in our systems and processes. We have delivered nearly £120 million of our previously announced cost savings. However, we recognise the need to be even more efficient in order to maintain our competitiveness and in addition some of our end markets have been affected by COVID-19. Therefore, we are targeting additional annualised cost savings of at least £80 million by the end of 2022/23. We regret that this will lead to some job losses, which we estimate to be around 2,500 globally over the three year period.

Given the ongoing uncertainty, we are unable to provide financial guidance for 2020/21. In Clean Air, our customers are gradually ramping up their plants but visibility on the path of recovery remains low. Efficient Natural Resources is later cycle and we anticipate an impact as lower demand begins to affect the industries it serves. Health is relatively unaffected by the macroeconomic environment and should benefit from new customer contracts. In Battery Materials, the commercialisation of eLNO remains on track. Notwithstanding the strong financial position of the group, in light of the current uncertainty and to balance the needs of all stakeholders, the board is proposing a final dividend for the year of 31.125 pence, representing half the level of the 2018/19 final dividend.

These developments do not change the global trends that will drive our longer term growth. Addressing climate change remains a priority and commitments to net zero are gathering pace across the world. Our continued investment in strategic growth projects and leading sustainable technologies uniquely positions us to address this and other key global trends, delivering significant value for our shareholders and society.

Reported results		**2020**	**Year ended 31st March 2019**	**% change**
Revenue	£ million	14,577	10,745	+36
Operating profit	£ million	388	531	-27
Profit before tax (PBT)	£ million	305	488	-38
Earnings per share (EPS)	pence	132.3	215.2	-39
Ordinary dividend per share	pence	55.625	85.5	-35

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Underlying performance[1]		2020	Year ended 31st March 2019	% change	% change, constant rates[2]
Sales excluding precious metals (sales)[3]	£ million	4,170	4,214	-1	-2
Operating profit	£ million	539	566	-5	-6
Profit before tax	£ million	455	523	-13	-14
Earnings per share	pence	199.2	228.8	-13	

Reported results

- Reported revenue increased 36% driven by higher average precious metal prices
- Reported operating profit declined 27% driven by a restructuring and impairment charge of £140 million and a c.£60 million impact related to COVID-19
- Reported EPS declined 39%, reflecting lower operating profit and higher net finance charges
- Cash inflow from operating activities was £598 million

Underlying performance[1]

- Sales declined 2% driven by Clean Air and Health, partly offset by higher sales in Efficient Natural Resources and New Markets
- Underlying operating profit declined 6% primarily driven by a c.£60 million impact related to COVID-19. Excluding COVID-19, underlying operating profit grew 5%
  - Of the c.£60 million, c.£30 million reflected lower demand in Clean Air, and the remainder was due to higher trade debtor provisions across the group and delayed sales due to logistical challenges in our other businesses
- Underlying EPS declined 13% reflecting lower underlying operating profit and higher net finance charges. Net finance charges grew primarily driven by increased average precious metal borrowings due to higher precious metal prices, on which we pay higher interest on average than the rest of our borrowings
- Strong balance sheet with net debt of £1.1 billion; net debt to EBITDA of 1.6 times
- Return on invested capital (ROIC) decreased from 16.4% to 13.3% mainly due to increased capital expenditure, higher average precious metal working capital through the year and lower underlying operating profit

Dividend

The group has a strong balance sheet, good cash generation and liquidity headroom. However, given the heightened degree of current uncertainty and to balance the needs of all stakeholders, the board will propose a final ordinary dividend for the year of 31.125 pence at the Annual General Meeting on 23rd July 2020, representing half the level of the 2018/19 final dividend. This is not intended to be a rebasing; the board remains committed to a progressive dividend and anticipates restoring future dividend payments to levels seen prior to the COVID-19 pandemic when circumstances permit.

Subject to approval by shareholders, the final dividend will be paid to shareholders on 4th August 2020, with an ex dividend date of 18th June 2020.

Outlook for the year ending 31st March 2021

Given the ongoing uncertainty, we are unable to provide financial guidance for the year ending 31st March 2021. Looking at each of our sectors:

- **Clean Air** has a direct link to consumer demand. Following automotive OEM shutdowns earlier in the year, we are now seeing our customers gradually reopen their plants. Production in China is recovering towards prior year levels, and Europe and the US are now also gradually ramping up. However, visibility on the path of recovery remains low. This significant uncertainty has led to a wide range of forecasts for automotive and truck production for the coming year. External data currently suggests a decline of c.25% in light duty for Europe and the US, but better in Asia, while for heavy duty the declines are slightly more. Although the actual outcomes could be materially different. We have a flexible cost base in Clean Air, enabling us to manage different levels of activity, with c.75% of costs before mitigation being variable

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- **Efficient Natural Resources** serves a diverse range of end markets and is subject to a broader range of variables. It is later cycle than Clean Air, so while we have seen little impact so far on the business from macroeconomic weakness, we expect this will come through as lower demand begins to affect the industries it serves and because of volatile feedstock dynamics. Pgm prices will also influence operating performance. Operating leverage is greater here as the sector operates with a larger number of sites and higher fixed costs

- **Health** is relatively unaffected by changes in the macroeconomic environment. We expect to benefit from new supply agreements for APIs used in generic opioid addiction therapies as well as our continued work with innovator customers

- In **Battery Materials**, commercialisation of eLNO remains on track

Our newly announced efficiency initiatives will deliver additional annualised savings of at least £80 million by 2022/23 for a cash cost of c.£80 million, with initial savings of at least £30 million supporting operating performance in 2020/21. We have a strong balance sheet and liquidity position and expect to generate further cash through precious metal working capital improvements as we continue to reduce refinery backlogs. We remain committed to our investment in our strategic growth projects which will support our medium term growth.

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Notes:
In our pre-close trading update (30th March 2020) we guided to an impact of around £50 million on our trading performance from COVID-19. Vara consensus for full year underlying operating profit in 2019/20 was £581 million (range: £562 million to £593 million) as at 29th March 2020.

1. Underlying is 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. For definitions and reconciliations of other non-GAAP measures, see pages 43 to 47.
2. Unless otherwise stated, sales and operating profit commentary refers to performance at constant rates. Growth at constant rates excludes the translation impact of foreign exchange movements, with 2018/19 results converted at 2019/20 average exchange rates
3. Revenue excluding sales of precious metals to customers and the precious metal content of products sold to customers

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Strategy update

The COVID-19 pandemic has led to significant challenges across the world. We continue to work hard to respond to these unprecedented circumstances and actively manage the ongoing risks to our people, operations and customers. To maintain the health, safety and wellbeing of our people we have implemented working from home arrangements where possible and ensured the highest standards of safety in all working practices.

Immediate and decisive action in response to COVID-19

In the year, we made good strategic progress and delivered operating performance, excluding the effects of COVID-19, slightly ahead of market expectations. Due to COVID-19, we experienced an adverse impact of c.£60 million to underlying operating profit in the year ended 31st March 2020, of which c.£30 million reflected lower demand in Clean Air, and the remainder was due to higher trade debtor provisions across the group of c.£15 million, and delayed sales due to logistical challenges in our other businesses.

Our immediate response to COVID-19 was to take decisive action to maintain our strong balance sheet and strengthen our liquidity through cost reduction, tightly managing our operations to optimise working capital and postponing non-strategic capex. Our cost reduction measures included adjusting working patterns, reducing contractor spend and restricting travel costs and we optimised working capital by reacting quickly and temporarily stopping production at our Clean Air plants, managing our raw materials purchases and controlling pgm refinery intakes.

Following the temporary closure of numerous automotive OEM production plants due to government mandated closures and lower consumer demand, our Clean Air plants are now gradually resuming production across all regions. Across the remainder of our business, the vast majority of our plants are operational and we have adopted new working practices in line with local guidelines. Alongside maintaining our operations where it is safe to do so, we are balancing obligations to our stakeholders through maintaining payment terms with suppliers and offering support to small suppliers who may be facing hardship.

Resilient business portfolio with a strong balance sheet

We are well positioned in an uncertain world. We have a resilient and diverse business portfolio which is exposed to a range of end markets and geographies and our flexible cost base, particularly in Clean Air where c.75% of our costs are variable, enables us to adapt quickly to changes in demand, reduce our costs and preserve cash. When the macroeconomic environment weakens, our business model provides a natural hedge which strengthens our balance sheet and liquidity as we have significant precious metal working capital inflows when demand is lower. The strength of our position means that we decided not to take any support from the UK government for furloughed staff, or draw down on the Bank of England's COVID Corporate Financing Facility (CCFF) despite qualifying for the loan.

We have a strong balance sheet with good access to liquidity of c.£1.3 billion. Earlier in the year we concluded a £1 billion five year committed revolving credit facility and more recently we issued US$300 million of private placement notes.

Net debt at 31st March 2020 was £1.1 billion (31st March 2019: £866 million) and our leverage ratio (net debt to EBITDA) was 1.6 times (31st March 2019: 1.3 times). This was at the bottom end of our target range of 1.5 to 2.0 times, benefiting from a £345 million reduction in precious metal working capital volumes. This progress was despite the impact of COVID-19 on EBITDA and reflects our focus on the effective management of our precious metal working capital. The actions we have taken include strong progress in reducing our refining backlogs where we have made faster progress than expected, optimising our precious metal working capital across our businesses and reviewing commercial terms with pgm collectors as well as our Clean Air customers.

We maintain a balanced debt maturity profile across different lenders. Committed facilities are renewed regularly and there is no material refinancing due in 2020 or 2021. There is material headroom in relation to debt covenants[1] of 3.5 times net debt to EBITDA which are tested annually, with the next test based on financials for the period ending 31st March 2021.

Notes:

1. The majority of our facilities contain a net debt to EBITDA covenant of 3.5 times. Two legacy loans (£41 million and £148 million maturing after 31st March 2021) contain a 3.0 times covenant and are expected to be amended. Our headroom assumes repayment of these legacy loans.

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Accelerating our strategy to drive efficiency

Across the group, we have been investing to drive efficiency across our manufacturing footprint and operations. We are now able to accelerate a number of these initiatives. We are consolidating our Clean Air footprint and optimising our group operating model to create further organisational efficiency across the group.

In total, the acceleration of our strategic initiatives will deliver annualised savings of at least £80 million over the next three years, of which at least £30 million will benefit 2020/21. Together with the £145 million of cost savings previously announced, of which we have already delivered £116 million, this will take total annualised cost savings to c.£225 million by the end of 2022/23. There will be associated one off costs of c.£240 million related to these new savings which will be taken outside of underlying operating profit, of which the cash element will be c.£80 million. Over three years, this is expected to result in a reduction in staff numbers of c.2,500 subject to consultation. For further detail on these costs, please see page 19. The key actions include:

- **Consolidating Clean Air footprint**
  In Clean Air, we have been investing in new world class plants in Europe and Asia. These plants are identical and highly flexible, allowing us to drive efficiency and increase agility across our global footprint by consolidating some of our existing older capacity in Europe into this new capacity. This will deliver c.£30 million of annualised cost benefits by the end of 2022/23.

- **Driving organisational efficiency**
  In recent years we have been investing into our corporate functions. For example we are rolling out our single global ERP (enterprise resource planning) system, and have invested into our global procurement and IT functions to increase our capability and standardise our processes. This is allowing us to review our group operating model to remove duplication of activities between the corporate centre and the sectors and reduce complexity across the organisation. A simplified organisation will enable faster decision making and reduce costs. Overall, these measures are expected to deliver c.£50 million of annualised cost benefits by the end of 2022/23.

Summary of efficiency initiatives

Initiative £ million	Delivered to date	Annualised benefits by 2022/23
Procurement[1]	71	100
Restructuring	25	25
Health footprint optimisation	20	20
Previous initiatives beginning 2017	**116**	**145**
Clean Air footprint	-	30
Group wide organisational efficiency	-	50
New initiatives	**-**	**80**
Total efficiency initiatives	**116**	**225**

[1] Around three quarters of procurement initiatives will benefit the income statement, of which around two thirds will be reinvested to drive growth.

Addressing climate change continues to drive our medium term growth

Our vision is for a world that is cleaner and healthier, today and for future generations. Our strategy for sustained growth and value creation is driven by the application of our world class science to solve the challenges arising from key global trends including climate change as well as increasing population and longevity, and resource challenges. In collaboration with our customers, we use our science to solve their most complex problems and in doing so we are creating long term value for our shareholders and society.

Through our leading positions in high margin, technology driven growth markets, we will deliver growth over the medium term. In the year, we made good strategic progress across our sectors and further developed in key areas:

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- In **Clean Air**, we continued to benefit from tightening legislation globally, especially in Europe and Asia and maintained our strong market shares in our key light duty diesel and heavy duty segments. With the construction of our new plants in Europe and Asia largely complete, our global, efficient and flexible manufacturing footprint is enabling us to drive efficiency across the sector.

- In **Efficient Natural Resources**, we continue to focus our resource on selected, higher growth segments; target our R&D investment for future growth; and drive operational efficiency. Our refinery upgrade programme, which will ensure our assets operate effectively and reliably, is progressing well. We made good progress in developing and commercialising new technologies which includes our mono ethylene glycol technology as we began work on the first project and our Fischer Tropsch waste to aviation fuel technology as we produced the first catalyst. Across the sector, we continued to help our customers optimise their operations, for example our formaldehyde team launched a new digital portal for enhanced interaction with customers. To support our longer term growth, we progressed our business development projects including battery materials recycling and our work with various partners to drive the acceleration of adoption of hydrogen as a more significant part of the energy mix.

- In **Health**, we have agreed new multi-year supply agreements with generic partners for the supply of APIs used in generic opioid addiction therapies. We made further progress towards delivering an additional c.£100 million operating profit from our pipeline of generic and innovators APIs by 2025 although it may be delayed a year given the inherent uncertainty around the timing of individual drug launches. On the innovator side, we saw recent success with our customer – Immunomedics – who recently received regulatory approval for production of an immuno-oncology treatment for triple negative breast cancer. Immunomedics is now increasing volumes in support of the commercial launch.

- In **Battery Materials**, we are making significant progress in commercialising eLNO, our portfolio of leading ultra-high energy density cathode materials which will compete with materials such as NMC 811. eLNO will suit a broad range of applications, particularly in enabling greater adoption of long range, pure battery electric vehicles.

  Feedback from testing with customers remains positive, specifically our ability to provide tailored solutions. In the year, we moved to full cell testing with four customers – two global automotive OEMs and two non-automotive customers. Our progress with non-automotive customers is another important validation of eLNO in commercial applications and offers a faster route to qualification. Full cell testing means we are collaborating more intensively with customers to further develop, formulate and test eLNO and they have reduced their number of potential suppliers. This gives us increased confidence that our materials provide the performance our customers seek. Alongside this full cell testing, we continue to work in the validation phase with a number of global automotive OEMs and cell manufacturers.

  We broke ground on our first commercial plant in Konin, Poland, which is expected to be on stream in 2022 and supplying platforms in production in 2024. Our total investment to first commercial production will amount to c.£350 million, although we are seeing some upward pressure as we finalise the design and build in more flexibility to meet our customers' requirements. Beyond this, scale up is likely to be phased as we match capacity to market demand. As part of the commercialisation process, we are also securing sources of renewable energy for the site in Poland.

- There is increasing momentum around the significant role that **hydrogen** will play in enabling the energy transition to a clean, low carbon economy. We have a unique competitive advantage for this transition, with a number of market leading solutions across the hydrogen value chain including hydrogen production technologies and fuel cells:
  - **Hydrogen production technologies:** As the market evolves, we are well positioned due to our development of a new, market leading process to produce low carbon hydrogen (LCH™) or "blue" hydrogen. Carbon capture and storage is easier and cheaper using our process and we are already starting to commercialise this technology. We are collaborating on one of the UK's leading low carbon hydrogen projects – HyNet North West – which will use our LCH hydrogen technology in a refinery for the first time.

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- **Fuel cell technologies:** Fuel cells will play a key role in the decarbonisation of transportation. With our expertise in precious metals, ability to provide customised solutions and established manufacturing footprint, we are well positioned for this market. Today, we supply fuel cells for non-automotive and automotive applications including commercial vehicles in China, and we are working with a number of customers, including major automotive OEMs, on a variety of applications as this market develops. We continue to invest in our technology and have committed £15 million to double our manufacturing capacity across the UK and China.

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Summary of operating results

Unless otherwise stated, commentary refers to performance at constant rates. Percentage changes in the tables are calculated on unrounded numbers

Sales (£ million)	**2020**	**Year ended 31st March 2019**	**% change**	**% change, constant rates**
Clean Air	2,618	2,720	-4	-4
Efficient Natural Resources	1,079	991	+9	+8
Health	223	257	-13	-15
New Markets	389	362	+7	+7
Eliminations	(139)	(116)		
Sales	**4,170**	**4,214**	**-1**	**-2**

Underlying operating profit (£ million)	**2020**	**Year ended 31st March 2019**	**% change**	**% change, constant rates**
Clean Air	295	393	-25	-25
Efficient Natural Resources	256	181	+41	+40
Health	27	43	-37	-38
New Markets	(1)	2	n/a	n/a
Corporate	(38)	(53)		
Underlying operating profit	**539**	**566**	**-5**	**-6**

Reconciliation of underlying operating profit to operating profit (£ million)	**2020**	**Year ended 31st March 2019**
Underlying operating profit	539	566
Profit / (loss) on disposal of businesses[1]	2	(12)
Loss on significant legal proceedings	-	(17)
Amortisation of acquired intangibles	(13)	(14)
Major impairment and restructuring charges[1]	(140)	8
Operating profit	**388**	**531**

[1] For further detail on these items please see pages 18 and 19

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Second half performance

Sales (£ million)	H2 2019/20	2018/19	% change	% change, constant rates
Clean Air	1,226	1,408	-13	-12
Efficient Natural Resources	583	528	+10	+10
Health	112	139	-19	-20
New Markets	203	189	+8	+8
Eliminations	(78)	(59)		
Sales	**2,046**	**2,205**	**-7**	**-7**

Sales declined 7% in H2 2019/20. Clean Air was impacted by COVID-19 and lower heavy duty production globally. In Efficient Natural Resources, sales were higher due to a strong performance in PGM Services. There was weaker business performance in Health due to the temporary disruption in the opioid addiction therapy market. Sales in New Markets were strong as we continued to see good demand for non-automotive battery systems and fuel cells.

Underlying operating profit (£ million)	H2 2019/20	2018/19	% change	% change, constant rates
Clean Air	116	202	-43	-42
Efficient Natural Resources	162	96	+70	+71
Health	9	28	-69	-69
New Markets	7	(1)	n/a	n/a
Corporate	(20)	(30)		
Underlying operating profit	**274**	**295**	**-7**	**-6**

Operating profit was down 6% in the second half, primarily due to COVID-19 which impacted operating profit by c.£60 million, mostly in Clean Air. Efficient Natural Resources grew materially due to a strong performance in PGM Services. In Health, there was weaker performance due to the temporary disruption in the opioid addiction therapy market. New Markets operating profit grew strongly driven by better performances in Life Science Technologies and Medical Device Components. Corporate costs were lower due to lower legal costs and share based payments.

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Operating results by sector

Clean Air

Sales outperformed in a weak market

- In light duty, Europe sales grew 2% and Asia sales grew 4%, both well ahead of markets that declined, as we benefited from tightening legislation which increased the value per vehicle
- Globally, heavy duty sales declined 13% which was broadly in line with the market
- Strong market shares were maintained in our key light duty diesel and heavy duty segments
- Operating profit was down as guided, primarily driven by a weak global heavy duty market, COVID-19 related costs, infrastructure investment and one-off costs in the first half associated with manufacturing inefficiencies

	Year ended 31st March 2020 £ million	2019 £ million	% change	% change, constant rates
Sales				
LDV Europe	1,046	1,031	+1	+2
LDV Asia	381	361	+5	+4
LDV Americas	315	346	-9	-11
Total Light Duty Vehicle Catalysts	**1,742**	**1,738**	**-**	**-**
HDD Americas	443	476	-7	-10
HDD Europe	277	334	-17	-16
HDD Asia	111	128	-13	-14
Total Heavy Duty Diesel Catalysts	**831**	**938**	**-11**	**-13**
Other – stationary	45	44	+1	-
Total sales	**2,618**	**2,720**	**-4**	**-4**
Underlying operating profit	**295**	**393**	**-25**	**-25**
Margin	**11.3%**	**14.4%**		
Return on invested capital (ROIC)	**18.4%**	**30.0%**		
Reported operating profit	**236**	**390**	**-40**	

Light Duty Vehicle (LDV) catalysts

In LDV catalysts, we provide catalysts for emission control after-treatment systems for cars and other light duty vehicles powered by diesel and gasoline. Global sales were flat year on year, but well ahead of the decline in global light duty vehicle production of 10%, which was more pronounced in the second half as COVID-19 affected the global automotive market. Our customers first began to close their plants in China towards the end of January and then in Europe and the US from the middle of March.

In Europe, diesel accounts for around 80% of our LDV business. Sales of diesel catalysts were flat as we outperformed a market that declined, driven by the annualisation of our diesel market share gains. We maintained a market share of c.65% in light duty diesel vehicles.

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In Western Europe, diesel accounted for 31% of new passenger car sales in 2019/20, compared with 35% in the last financial year. Light duty commercial vehicles remain largely diesel today. When these are included, the overall share of diesel sales in Western Europe was 39% for 2019/20, compared with 42% in 2018/19.

Sales of gasoline catalysts were up in both Europe and Asia, significantly ahead of markets that declined 7% and 13% respectively. Growth was primarily driven by increased value per vehicle with the implementation of tighter legislative standards.

Americas LDV declined, driven by weaker performance in diesel largely due to the ramp down of a platform.

Heavy Duty Diesel (HDD) catalysts

In HDD catalysts, we provide catalysts for emission control after-treatment systems for trucks, buses and non-road equipment. Global sales were down 13%, broadly in line with the decline in market production of 11%.

In Americas, the high value Class 8 truck cycle peaked in September, then declined sharply in the second half. Our Class 8 sales declined as expected, slightly behind the market due to product mix.

Our European and Asian HDD businesses also declined broadly in line with their respective markets. Over the medium term, tightening legislation in China and India will drive a significant uplift in value.

Consolidating Clean Air footprint

We have been investing in our world class plants in Europe and Asia and this is enabling us to drive further efficiency and agility across the sector by consolidating some of our existing older capacity in Europe into these new, more efficient plants. In the year, this gave rise to an impairment charge of £61 million on our older manufacturing assets, taken outside of underlying operating profit.

Underlying operating profit

Operating profit declined 25% and margin declined 3.1 percentage points. This was primarily driven by a weak global heavy duty market, c.£40 million of COVID-19 related costs (including c.£10 million higher trade debtor provisions) and higher costs of c.£20 million from investment in infrastructure and start up costs for new plants. There were also one-off costs of c.£15 million which included additional freight costs and inefficiencies within our manufacturing footprint due to phasing of the completion of our new plant in Poland.

ROIC

ROIC was down 11.6 percentage points to 18.4% reflecting lower operating profit and higher invested capital from our new plants which are not yet yielding returns.

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Efficient Natural Resources

Significant growth in operating profit and margin expansion

- Sales grew 8% primarily driven by strong performance in PGM Services
- Significant operating profit growth and margin expanded 5.5 percentage points. This reflected higher average pgm prices and strength in our PGM Services trading business in a more volatile price environment, partly offset by higher refining operating costs and further investment in our refineries

	Year ended 31st March 2020 £ million	2019 £ million	% change	% change, constant rates
Sales				
Catalyst Technologies	556	567	-2	-3
PGM Services	389	281	+38	+36
Advanced Glass Technologies	70	75	-7	-7
Diagnostic Services	64	68	-6	-7
Total sales	**1,079**	**991**	**+9**	**+8**
Underlying operating profit	**256**	**181**	**+41**	**+40**
Margin	**23.8%**	**18.3%**		
Return on invested capital (ROIC)	**17.2%**	**12.6%**		
Reported operating profit	**250**	**175**	**+43**	

Catalyst Technologies

Our Catalyst Technologies business licenses key process technology and manufactures high value speciality catalysts and additives for the chemical and oil and gas industries. We saw a small impact from COVID-19 in the year, with the vast majority of our Catalyst Technology plants maintaining operations. Sales were slightly down driven by refill additives and copper zeolites to Clean Air, partly offset by strong growth in first fill catalysts and licensing.

Refill catalysts and additives sales were slightly lower

This is recurring business which makes up the majority of sales within Catalyst Technologies. Refill additives declined due to feedstock dynamics driving lower volumes. In refill catalysts, sales were stable. We saw good performance in ammonia and formaldehyde, ahead of the market. However, we saw lower sales in methanol following strong demand in the prior period and in hydrogen refill catalysts due to the lower oil price.

First fill catalysts almost doubled

First fill catalysts are lumpy in nature and driven by the start-up of new plants. They are a lead indicator of future refill catalyst demand. In the year, we saw strong sales growth driven by methanol and ammonia catalysts with new plants in Asia coming onstream.

Licensing saw good growth

Our licensing business is dependent on new plant builds and revenue is recognised over the period of construction. We saw good performance in the period driven by formaldehyde and methanol following recent license wins in these segments. We also began to recognise income from our newly developed mono ethylene glycol technology as we started work on the first project following the license win last year. In the year, we signed four new licenses and are pleased with the progress we are making in developing and commercialising technologies.

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PGM Services

PGM Services is the world's leading secondary refiner of platinum group metals and provides a strategic service to the group, mainly supporting Clean Air with security of metal supply in a volatile market. It comprises our pgm refining, recycling and trading activities and produces chemical compounds and industrial products containing pgms. Towards the end of the year, our pgm refineries continued to operate albeit at lower capacity due to compliance with local guidelines and new working practices in light of COVID-19.

PGM Services sales grew strongly, up 36%

In the year, sales grew 36%. We saw strong growth in our refinery and trading businesses due to higher and more volatile average pgm prices. Average palladium and rhodium prices were up 56% and 137% respectively, whilst the platinum price increased 5%, compared to the same period last year. Sales of chemical products grew driven by Clean Air which uses pgm materials in its catalyst products, however, sales of industrial products containing pgms were down.

Refinery backlog volumes improved

Following unscheduled downtime in one of our pgm refineries in 2018/19 which resulted in higher precious metal working capital, we made strong progress this year in reducing the volume of precious metal working capital in our refineries whilst ensuring continued supply to our Clean Air business and external customers. Our progress has been faster than expected and, as a result of the work we have done to improve our precious metal working capital efficiency, we now expect to remove at least a further £300 million[1] of precious metal working capital volume from our backlogs by the end of 2020/21.

As previously announced, the £100 million investment in our new refinery is underway. This will further reduce precious metal working capital, ensure our assets operate effectively and reliably, and strengthen our position as a long term supplier to our customers.

Advanced Glass Technologies

Advanced Glass Technologies mainly provides black obscuration enamels and silver paste for automotive glass applications. Sales were lower largely driven by the automotive segment as a result of the slowdown in global car production, impacted by COVID-19.

Diagnostic Services

Diagnostic Services provides specialised detection, diagnostic and measurement solutions for our customers in the petroleum industry. Sales were down as we saw an impact from the declining oil price and COVID-19.

Underlying operating profit

Operating profit grew significantly, up 40%, and margin expanded 5.5 percentage points. This was primarily driven by a £47 million benefit from higher average pgm prices and strength in our PGM Services trading business in a more volatile price environment, partly offset by higher refinery operating costs as we continue to work down our backlogs and further investment in our refineries.

ROIC

ROIC increased 4.6 percentage points to 17.2% reflecting higher operating profit.

Notes:

1. Based on 31st March 2020 prices.

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Health

Performance affected by temporary disruption in the opioid addiction therapy market

- Generics declined as expected, affected by temporary disruption in the opioid addiction therapy market and lower sales of ADHD APIs. We have now agreed new multi-year supply agreements for opioid addiction therapies with generic partners from which we will begin to see the benefit in 2020/21
- Innovators grew driven by a customer who received regulatory approval for a novel immuno-oncology treatment
- Operating profit declined materially driven by weaker sales performance, partly offset by stock build to meet higher customer demand in 2020/21 and a net benefit from footprint optimisation
- We made further progress towards delivering an additional c.£100 million of operating profit from our pipeline of generic and innovator APIs by 2025 although this may be delayed a year given the inherent uncertainty around the timing of individual drug launches.

	Year ended 31st March		**% change**	**% change, constant rates**
	2020 £ million	**2019 £ million**		
Sales				
Generics	134	171	-22	-23
Innovators	89	86	+5	+2
Total sales	**223**	**257**	**-13**	**-15**
Underlying operating profit	**27**	**43**	**-37**	**-38**
Margin	**12.1%**	**16.7%**		
Return on invested capital (ROIC)	**5.3%**	**9.0%**		
Reported operating profit	**10**	**50**	**-80**	

Health

Given the nature of our Health business in providing critical products and services into the pharmaceutical sector, COVID-19 had limited impact in the year. We maintained the vast majority of our operations although we experienced some delays to shipment of orders following increased border controls.

Generics

Our Generics business develops and manufactures generic active pharmaceutical ingredients (APIs) for a variety of treatments. Sales were down significantly, with a mixed performance across the business.

Agreed new multi-year supply agreements for opioid addiction therapies

Sales of controlled APIs were lower. Speciality opiates were broadly flat in the year. Following a strong first half, sales declined in the second half due to developments in the opioid addiction therapy market which drove lower demand in the short term for APIs used in generic opioid addiction therapies. Although these developments affected our performance in the year, we have now agreed new multi-year supply agreements with generic partners and we will start to see the benefit from these in 2020/21. Sales of APIs for ADHD treatments declined as one of our customers moved to dual sourcing for some high margin APIs. Sales of bulk opiates in Europe were stable.

Our non-controlled APIs declined as expected. This primarily reflected a continued reduction in sales of dofetilide as new competitors for our customer entered the market.

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Innovators

Our Innovators business provides custom development and manufacturing services for active ingredients of new drugs during their lifecycle, including for initial clinical evaluation and subsequently for commercial supply post regulatory approval.

Recent regulatory approval for our customer's novel immuno-oncology treatment

Our Innovators business grew slightly. This was primarily driven by higher sales in relation to our strategic partnership with Immunomedics for the manufacture of a drug linker used in the production of an immuno-oncology treatment for triple negative breast cancer. Immunomedics has recently received approval for this therapy from the FDA (Food and Drug Administration) and is now increasing volumes to support commercial demand.

API product pipeline

In the year, we continued to develop our new product pipeline across both our Generics and Innovators businesses. We made further progress towards delivering an additional c.£100 million of operating profit from this by 2025 although it may be delayed a year given the inherent uncertainty around the timing of individual drug launches.

We recently undertook a strategic review of our new product introduction process. Following this review, we made organisational changes, improved the new product introduction process and took the decision to deprioritise 21 generic molecules and refocus our resources on the most attractive opportunities. This gave rise to an impairment charge of £20 million in relation to previously capitalised development expenditure, taken outside of underlying operating profit.

Overall, our pipeline now comprises 54 molecules which includes generic APIs, innovator APIs and new applications. This includes four launched molecules and eight generics which are awaiting regulatory approval.

Specifically within Innovators, at the start of the year, we had four projects in late stage testing programmes. Of these, two projects – including Immunomedics – have now been approved, one project did not receive approval and has been cancelled and the remaining opportunity is still in late stage testing.

Underlying operating profit

Operating profit declined 38% driven by weaker business performance including temporary disruption in the opioid addiction therapy market and lower ADHD sales. This was partly offset by stock build to meet higher demand from customers in 2020/21 which led to a greater absorption of fixed costs into inventory on the balance sheet and a net benefit from footprint optimisation.

ROIC

ROIC declined 3.7 percentage points to 5.3% mainly driven by lower operating profit.

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New Markets

Strong sales growth and continued progress in commercialising eLNO

- Sales up 7% driven by strong demand for fuel cells and non-automotive battery systems
- Operating profit declined as we invested in the development of our Battery Materials business and recognised an £8 million one-off impairment in the first half in relation to our demo plant
- Significant progress in commercialising eLNO as we broke ground on our first commercial plant and now have four customers in full cell testing

	Year ended 31st March 2020 £ million	2019 £ million	% change	% change, constant rates
Sales				
Alternative Powertrain	237	206	+15	+16
Medical Device Components	72	70	+2	-
Life Science Technologies	50	49	+1	-
Other	30	37	-19	-20
Total sales	**389**	**362**	**+7**	**+7**
Underlying operating (loss) / profit	**(1)**	**2**	**n/a**	**n/a**
Margin	**-0.2%**	**0.7%**		
Return on invested capital (ROIC)	**-0.3%**	**1.1%**		
Reported operating loss	**(62)**	**(15)**	**n/a**	

Alternative Powertrain

Our Alternative Powertrain business provides battery systems for a range of applications, fuel cell technologies and battery materials for automotive applications. Our Battery Materials business comprises lithium iron phosphate (LFP) materials as well as eLNO, our portfolio of leading ultra-high energy density materials. Sales grew 16%, with continued momentum in Fuel Cells and Battery Systems for e-bikes.

Significant progress in commercialising eLNO

We are making significant progress with the development and commercialisation of our portfolio of eLNO materials, which will compete with future ultra-high energy density materials such as NMC 811. Feedback from testing with customers remains positive, specifically our ability to provide tailored solutions. In the year, we moved to full cell testing with four customers – two global automotive OEMs and two non-automotive customers. Alongside this full cell testing, we continue to work with a number of automotive OEMs and cell manufacturers in the validation phase.

We broke ground on our first commercial plant in Konin, Poland, which is expected to be on stream in 2022 and supplying platforms in production in 2024. Our total investment to first commercial production will amount to c.£350 million, although we are seeing some upward pressure as we finalise the design and build in more flexibility to meet our customers' requirements. Beyond this, scale up is likely to be phased as we match capacity to market demand. As part of the commercialisation process, we are also securing sources of renewable energy for the site in Poland.

Refocusing Lithium Iron Phosphate to support eLNO

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 our higher performing lithium iron phosphate (LFP). Sales of LFP grades for lower performance requirements declined in the year and we are now refocusing our LFP business to the high value segment, exiting the much larger lower value segment of the market, to better support our eLNO customers and the development of this business. These changes gave rise to an impairment charge of £57 million in the year, taken outside of underlying operating profit.

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Fuel Cells saw significant growth in sales as we invest for growth
Sales in Fuel Cells grew 23% to £33 million and we delivered good operating profit growth driven by increased demand for both non-automotive and automotive applications in Asia. Today, our fuel cells are now powering several hundred commercial vehicles and buses in China. We continue to invest in line with market demand and have committed c.£15 million to double our capacity in the UK and China.

Medical Device Components
Our Medical Device Components business leverages our science and technology to develop products found in devices used in medical procedures. Sales were flat in the year. At the end of the year, we saw a small increase in sales as some of our products are vital components used within ventilators.

Life Science Technologies
Our Life Science Technologies business provides advanced catalysts to the pharmaceutical and agricultural chemicals markets. Sales were flat in the year.

Underlying operating profit
Operating profit declined as we invested in the development of our Battery Materials business and recognised an £8 million one-off impairment in the first half in relation to our demo plant.

ROIC
ROIC decreased to -0.3% reflecting the operating loss as we invest in Battery Materials.

Corporate
Corporate costs in the period were £38 million, a decrease of £15 million from 2018/19 due to lower legal costs and share based payments.

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Financial review

Research and development (R&D)
We invested £199 million in R&D in the year, including £23 million of capitalised R&D, around 5% of sales. Spend increased 5% as we invested in next generation technologies in Clean Air, the efficiency and resiliency of our refineries in Efficient Natural Resources, our Health API product pipeline and our eLNO cathode material.

Foreign exchange
The calculation of growth at constant rates excludes the impact of foreign exchange movements arising from the translation of overseas subsidiaries' profit into sterling. The group does not hedge the impact of translation effects on the income statement.

The principal overseas currencies, which represented 85% of the non-sterling denominated underlying operating profit in the year ended 31st March 2020, were:

	Share of 2019/20 non-sterling denominated underlying operating profit	Average exchange rate Year ended 31st March		% change
		2020	2019	
US dollar	40%	1.271	1.310	-3
Euro	33%	1.143	1.134	+1
Chinese renminbi	12%	8.85	8.81	-

Overall for the year, the impact of exchange rates increased sales by £36 million and increased underlying operating profit by £5 million, following a £47 million and an £8 million increase respectively in our first half.

If current exchange rates (£:$ 1.233, £:€ 1.110, £:RMB 8.81) are maintained throughout the year ending 31st March 2021, foreign currency translation will have a positive impact of approximately £11 million on underlying operating profit. A one cent change in the average US dollar and euro exchange rates each have an impact of approximately £2 million on full year underlying operating profit and a ten fen change in the average rate of the Chinese renminbi has an impact of approximately £1 million.

Major impairment and restructuring charges
As we accelerate our strategy to drive efficiency, we will deliver annualised savings of at least £80 million over the next three years to 2022/23. Related to these new savings, we will be taking total impairment and restructuring charges of around £240 million by 2022/23. Of this, around £80 million is expected to be cash.

During the year we recognised impairment and restructuring charges of £140 million. These comprised the consolidation of our Clean Air footprint, our Lithium Iron Phosphate (LFP) business in Battery Materials and our Health product pipeline.

In Clean Air, we will consolidate some of our existing older capacity in Europe into our new, more efficient plants. In the year, this resulted in an impairment charge of £61 million on our older manufacturing assets.

We impaired our Lithium Iron Phosphate (LFP) business in Battery Materials, which gave rise to an impairment charge of £57 million in the period.

A strategic review of Health's new product introduction process was undertaken during the year which resulted in organisational changes and the deprioritisation of the development of 21 molecules. Development expenditure which had been capitalised in respect of the terminated molecules totalling £20 million has been written off during the year.

Future restructuring costs of around £100 million relate to the simplification of our organisation and consolidation of our Clean Air footprint.

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See the table for a breakdown showing the impairment and restructuring charge and cash costs:

£ million	Annualised benefits by 2022/23[1]	Total restructuring costs	Restructuring costs 2019/20	Future restructuring costs[2]
Clean Air footprint	30	(91)	(61)	(30)
Group wide organisational efficiency	50	(70)	-	(70)
Battery Materials LFP	-	(57)	(57)	-
Health product pipeline	-	(20)	(20)	-
Other restructuring costs	-	(2)	(2)	-
Total	**80**	**(240)**	**(140)**	**(100)**

[1] Annualised benefits from 2020/21 of at least £30 million.
[2] Includes cash costs of c.£80 million.

Profit / (loss) on disposal of businesses

Profit / (loss) on disposal of businesses is shown separately on the face of the income statement and excluded from underlying operating profit. In the year, we released a £2 million provision in relation to the disposal of Johnson Matthey Gold and Silver Refining Holdings in March 2015. In the year ended 31st March 2019, 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.

Finance charges

Net finance charges in the year amounted to £86 million, up from £43 million in 2018/19. This was primarily driven by increased average precious metal borrowings due to higher precious metal prices, on which we pay higher interest on average than the rest of our borrowings.

Taxation

The effective tax rate on reported profit for the year ended 31st March 2020 was 16.4%, up from 15.3% in the prior year.

The tax charge on underlying profit before tax for the year ended 31st March 2020 was £72 million, an effective underlying tax rate of 15.7%, broadly unchanged from 15.9% in the prior year. This was around 2% lower than expected due to profit mix across different tax jurisdictions following the impact of COVID-19. The current year tax charge includes increases in provisions for uncertain tax positions, £12 million of which was recognised in the first half and relates to reassessments of prior years.

Post-employment benefits

IFRS – accounting basis

At 31st March 2020, the group's net post-employment benefit position, after taking account of the bonds held to fund the UK pension scheme deficit, was a surplus of £262 million.

The cost of providing post-employment benefits in the year was £49 million, down from £56 million last year. The post-employment benefits cost also included a past service credit of £20 million, which compared to a £9 million credit in the prior period.

Actuarial – funding basis

The UK pension scheme has a legacy defined benefit career average section which was closed to new entrants on 1st October 2012 when a new defined benefit cash balance section was opened.

The last triennial actuarial valuation of the career average section as at 1st April 2018 revealed a deficit of £34 million, or a surplus of £9 million after taking account of the future additional deficit funding contributions from the special purpose vehicle set up in January 2013. The valuation results as at 1st April 2018 allowed for the equalisation of Guaranteed Minimum Pension.

The last triennial actuarial valuation of the cash balance section as at 1st April 2018 revealed a surplus of £0.2 million.

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In order to reduce the group's long term pension risk exposure a number of changes to the UK pension scheme became effective from 1st July 2018, including:

- Contributions from those employees who remain in the career average section increased and will further rise over the next few years to help fund the increased cost of providing these benefits
- The accrual rate in the career average section reduced from 1/80th to 1/100th for each year of future service after this date
- New benefit levels with varying employee contribution rates were introduced in the cash balance section
- Employees in the career average section were given the option of switching to the cash balance section.

The latest actuarial valuations of our two US pension schemes showed a surplus of £1 million at 1st July 2019, an improvement from a £2 million deficit at 1st July 2018.

Capital expenditure

Capital expenditure was £465 million in the year, 3.1 times depreciation and amortisation (excluding amortisation of acquired intangibles). In the period, projects included:

- Clean Air manufacturing plants in Europe and Asia. This increased capacity will enable us to consolidate our manufacturing footprint to drive efficiency and improve flexibility, and support demand from tightening legislation in these regions
- Investment in the development and commercialisation of eLNO. We broke ground on our first commercial plant in Konin, Poland for the first 10,000 metric tonnes which has the potential for expansion to 100,000 metric tonnes. We are on track to start production in 2022 and supply platforms in production in 2024
- Upgrade to our core IT business systems
- Investment in our Health manufacturing facilities and continued investment in our API product pipeline
- Investment in the efficiency and resilience of our refineries within Efficient Natural Resources

Capital expenditure for 2020/21 is expected to be up to £400 million as our investment into strategic growth projects continues. Key projects include:

- Investment in eLNO as we continue to commercialise our ultra-high energy battery cathode material
- Completion of our new Clean Air plants in China and India
- Investment in the efficiency and resilience of our refineries within Efficient Natural Resources
- Upgrade to our IT systems as we continue to roll out our single global ERP system

Depreciation and amortisation (excluding amortisation of acquired intangibles) is expected to increase to around £200 million in 2020/21. This increase is largely due to the depreciation of our new Clean Air plants and our investment to upgrade our core IT systems.

Accelerating reduction of precious metal working capital

We have a disciplined approach to managing precious metal working capital and have accelerated our actions in this area. In the year, we made substantial progress in reducing precious metal volumes amounting to £345 million[1] which was achieved through:

- Progressing backlog reduction, with £162 million of precious metal volume removed
- Optimising precious metal volumes across our businesses, particularly between Clean Air and Efficient Natural Resources, and reviewing commercial terms with pgm collectors as well as our Clean Air customers. This removed £49 million of precious metal volume
- Substantial inflows of £134 million as a result of supply chain management in Clean Air, reducing metal at every stage so we were not sitting on excess inventory, as demand slowed due to the impact of COVID-19

We are focused on further reducing precious metal working capital. We are now targeting at least a further £300 million[2] reduction in precious metal backlogs by 31st March 2021, although we expect this to be offset by higher demand in Clean Air depending on the path of recovery.

Notes:
1. Based on 2019/20 blended prices.
2. Based on 31st March 2020 prices.

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Free cash flow and working capital

Free cash flow was an inflow of £52 million, an improvement on the prior year. This was primarily due to better net working capital where we saw an outflow of £1 million compared to an outflow of £224 million in the prior year.

Excluding precious metal, working capital days increased to 52 days at 31st March 2020 compared to 48 days in the prior year.

Average working capital days excluding precious metals increased by 4 days to 63 days. We are targeting an improvement in average non precious metal working capital to between 50 and 60 days over the medium term.

Dividend

The group has a strong balance sheet, good cash generation and liquidity headroom. However, given the heightened degree of current uncertainty and to balance the needs of all stakeholders, the board will propose a final ordinary dividend for the year of 31.125 pence at the Annual General Meeting on 23rd July 2020, representing half the level of the 2018/19 final dividend. This is not intended to be a rebasing; the board remains committed to a progressive dividend and anticipates restoring future dividend payments to levels seen prior to the COVID-19 pandemic when circumstances permit. Subject to approval by shareholders, the final dividend will be paid to shareholders on 4th August 2020, with an ex dividend date of 18th June 2020.

Return on invested capital (ROIC)

ROIC declined to 13.3% at 31st March 2020 from 16.4% in the prior year mainly due to higher capital expenditure, increased average precious metal working capital through the year and lower operating profit.

Capital structure

Net debt at 31st March 2020 was £1.1 billion. This is a decrease of £394 million from 30th September 2019 and an increase of £228 million from 31st March 2019. Net debt increased by £43 million to £1.1 billion when adjusted for the post tax pension deficits. The group's net debt (including post tax pension deficits) to EBITDA was 1.6 times (31st March 2019: 1.3 times), at the bottom end of our target range of 1.5 to 2.0 times.

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.

On a specific matter, 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.

UK's withdrawal from European Union

JM is continuing to monitor and assess the potential impact of the UK's withdrawal from the European Union on current operations and strategy. Plans are well developed and JM is confident that the acute demands of managing the COVID-19 response will not reduce its ability to respond to changes caused by the withdrawal.

Going concern

The group has a strong balance sheet with c.£1.3 billion of available cash and undrawn committed facilities at 31st March 2020. Leverage, measured by net debt (including post tax pension deficits) to EBITDA, was at the bottom of our target range at 1.6 times. 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.

Our review used a number of external sources to identify a range of potential economic scenarios and assessed our headroom under each scenario against committed facilities and key financial covenants over the going concern period.

At a macro-level we have used the GDP forecasts from a range of external parties for these scenarios, which are: (1) a deep recession base case which models an extended shutdown followed by an extended recovery period, and (2) a downside of a very deep recession comprising of a deeper shutdown with a challenging, stuttering recovery. The key macro assumptions for our financial year 2020/21 are shown below:

2020/21 GDP growth projections aligned with the scenarios

	Deep recession	Very deep recession
Description	Extended shutdown followed by extended recovery period	Deeper shutdown impact with challenging, stuttering recovery
Global	(1.0%) to (2.0%)	(3.5%) to (4.5%)
US	(0.6%)	(2.7%)
China	1.2%	(3.0%)
Europe	(6.5%)	(c.10%)

Source: JM analysis; Oxford Economics; McKinsey; IMF (International Monetary Fund); IEA (Institute of Economic Affairs); OBR (Office for Budget Responsibility) (UK); JPM Cazenove and Citi

Clean Air

With the legislative frameworks in place and assumed to remain for vehicle emissions in the markets in which we operate, our key market variable is the level of automotive production. Our scenarios utilise a range of external forecasts and our deep recession scenario assumes a decline of c.25% in light duty production for Europe and the US, but better in Asia, while for heavy duty the declines are slightly more. In our very deep recession scenario, we assume a c.35% decline in light duty production for Europe and the US, but better in Asia, while for heavy duty the declines are again slightly more. For US truck sales, we assume that the bottom of the cycle will occur in 2021/22 in both scenarios and we keep our assumptions on battery electric vehicles consistent at 2% of all vehicles globally.

Within these market assumptions, we have planned for a much greater impact in the early part of 2020/21 and an increase in production over the year, with slower recovery in the very deep scenario. With a high proportion of variable costs, we expect to mitigate a significant portion of the decline in sales. Working capital drops significantly in the short term before building again to support the growth to normalise by the end of the year. We also assume that we will continue with our strategic investments in the new facilities in China and India in the period.

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Efficient Natural Resources

The impact on our Efficient Natural Resources sector varies by sub-sector. The Catalyst Technologies businesses have seen little impact from the COVID-19 slowdown to date, but we do expect an impact as lower demand begins to impact the industries they serve. The key drivers for our businesses are diverse and will depend upon the specific markets they address as well as feedstock prices. At a market level we have assumed an oil price of $25-35/bbl for our deep scenario and $20-30/bbl for the very deep scenario together with an overall decline in investment in the oil and gas sector of 35% and 50% respectively. In these businesses we have a higher proportion of fixed costs so the impact of lower demand on profitability will be greater.

Platinum Group Metal (PGM) Services is most impacted by pgm prices and for the purpose of our scenarios we assume lower prices, which adversely impacts profitability. The lower demand on our refineries in the short term in part due to lower Clean Air volumes under these scenarios will allow us to accelerate our progress on backlog reduction as well as meeting planned shutdowns for maintenance and stock counts. This in turn reduces the sensitivity of our working capital to pgm prices.

Health and New Markets

Health is relatively unaffected by COVID-19 with demand for many products unaffected.

Most of our businesses in New Markets see only short term impacts from disruption to manufacturing and supply chains while the underlying market demand remains e.g. fuel cells and medical devices. We assume that our strategic focus and investment in Battery Materials is maintained throughout the period.

Funding and available liquidity

The group has a robust funding position. JM signed a £1 billion five year committed revolving credit facility in March this year which secures liquidity for the next five years and was entirely undrawn at 31st March 2020. Our longer term funding comes from the US private placement market and other regional lenders including the European Investment Bank and KfW. The maturity profile at 31st March 2020 is excellent with only £130 million of term debt maturing before June 2021. In April 2020, we secured a further US$300 million of funding from the US private placement market for the next five to seven years. JM has also secured access to the Bank of England's COVID Corporate Financing Facility (CCFF) which would provide additional back-stop liquidity for the next year if needed.

In addition, as a long-time, highly rated issuer in the US private placement market, JM expects to be able to access additional funding in its existing markets should it need to. The group also has a number of additional sources of funding available including uncommitted lease facilities that can provide precious metal funding.

At 31st March 2020 the group had metal lease facilities of c.£800 million, of which £451 million (31st March 2019: £372 million) was drawn. As these metal leases are for periods of less than 12 months they have been excluded from our going concern assessment, with the assumption that when these leases mature they are replaced with our other existing committed credit facilities. The metal leasing market remains active and there is no indication that renewing these lease facilities when they mature will not be possible. Similarly, we have also excluded from our modelling the funding facilities obtained under the CCFF. While metal leasing facilities and the CCFF are excluded from our modelling under a normal situation, we would expect to have access to facilities such as these.

Conclusion

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 scenario. In both scenarios, we have sufficient headroom against committed facilities and key financial covenants in the going concern period (15 months following 31st March 2020). There remain risks to the group including more extreme economic outcomes and our delivery of refinery backlog reductions. Against these the group still has a range of levers which it could utilise to protect headroom including delaying inventory builds, reducing capital expenditure and reducing future dividend distributions.

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The directors are therefore of the opinion that the group has adequate resources to fund its operations for the period of 15 months following 31st March 2020 and so determine that it is appropriate to prepare the accounts on a going concern basis.

Responsible business

Health and safety

We continue to build a world class health and safety culture across Johnson Matthey. We are making good progress against our targets to reduce significant risk in our major hazard processes and on improving overall health and safety performance. Our LTIIR of 0.35 and TRIIR of 0.78 both significantly improved relative to last year (2018/19: LTIIR 0.57, TRIIR 1.01).

Protecting our people as the COVID-19 pandemic has developed has been a major priority and we acted quickly based on our learnings from our sites in China to put in place guidance globally on the implementation of the necessary controls that met local state and government requirements and JM standards. Recognising that the impact of COVID-19 on people's daily lives may also take its toll on their personal wellbeing, we have been providing employees with more regular communications, tips and resources to support them through these more challenging times.

People

Our people are at the heart our business strategy. For us to deliver solutions from our world class science and realise our vision we are developing our culture further, where our people can be successful; a culture which attracts, retains and develops the very best talent.

As JM executes its strategy, we are driving a period of transformative change to build an organisation which is more market focused, lean and agile, and a fulfilling place for our employees to work. Our people investments over the past few years have laid the foundations and we are now in a strong position to leverage these to accelerate change and reshape the way we work, in line with our strategy and vision.

With the appropriate culture we can accelerate the change required to execute our strategy. Over the past 18 months we have engaged all levels of our organisation and external stakeholders to shape our culture ambition, aligning it to our vision and values and setting ourselves up for the future.

We regularly conduct an employee survey, known as yourSay, to know whether our employees are engaged with what we are doing and feel enabled to do their job well. Following a mixed outcome when we remeasured in 2018 we have invested significant energy to start to address the key issues. Our most recent 2019 pulse survey shows significant improvement on engagement (up 4 points to 63) with step change improvements in trust in leadership and pride in the organisation. We have also seen engagement of our longer serving employees increase significantly. Our efforts to cascade clear priorities, recognise employees' efforts, prioritise wellbeing and maintain efforts on career and personal development conversations have all had a positive impact. However, enablement in our 2019 survey remained flat at 63. While the survey reveals that employees feel their work is more challenging, stimulating and fulfilling, there are employees at some of our sites who feel barriers are getting in the way of their productivity. This is valuable feedback that we are factoring into how we organise our operating models, aiming for a leaner and less complex organisation.

Sustainable business framework to 2025

The route to a more sustainable future brings many challenges that must be tackled – challenges driven by global trends. In setting our vision for a cleaner, healthier world, we have made it our business to use our leading edge science for the creation of sustainable technologies that address these challenges.

Sustainability is therefore an integral part of our company, our strategy, and the decisions we take. Our sustainable business framework embeds our vision for a cleaner, healthier world through all aspects of our business and supply chains so that as we execute our strategy, we do so with a full understanding of the impact on people and planet. We have six challenging goals to 2025 against which we measure progress towards our vision. Through these goals, we continue our sustainability commitment internally and externally towards our customers, communities and supply chains. Goals 1, 2 and 3 are internal measures to: improve health and safety performance; support employee engagement and inclusivity; and reduce the environmental impact of our operations. Goals 4, 5 and 6 are externally facing and cover: responsible sourcing; increasing the impact of our products on a cleaner healthier world; and community engagement through employee volunteering. Further details

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of this framework, goals and their associated targets will be outlined in our 2020 Annual Report and Accounts which will be published on 23rd June 2020.

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Consolidated Income Statement

for the year ended 31st March 2020

	Notes	2020 £ million	2019 £ million
Revenue	3	**14,577**	10,745
Cost of sales		**(13,576)**	(9,729)
Gross profit		**1,001**	1,016
Distribution costs		**(126)**	(126)
Administrative expenses		**(313)**	(316)
Net impairment losses on trade and contract receivables		**(23)**	(8)
Profit / (loss) on disposal of businesses	4	**2**	(12)
Loss on significant legal proceedings	4	**-**	(17)
Amortisation of acquired intangibles	4	**(13)**	(14)
Major impairment and restructuring charges	4	**(140)**	8
Operating profit	4	**388**	531
Finance costs		**(195)**	(107)
Finance income		**109**	64
Share of profit of joint venture and associate		**3**	-
Profit before tax		**305**	488
Tax expense		**(50)**	(75)
Profit for the year		**255**	413
		pence	pence
Earnings per ordinary share			
Basic		**132.3**	215.2
Diluted		**132.1**	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	6	**87**	(69)
Fair value losses on equity investments at fair value through other comprehensive income		**(2)**	(3)
Tax on items that will not be reclassified to the income statement		**(21)**	13
		64	(59)
Items that may be reclassified to the income statement			
Exchange differences on translation of foreign operations		**65**	22
Fair value losses on other investments at fair value through other comprehensive income		**-**	(1)
Amounts credited to hedging reserve		**-**	4
Fair value losses on net investment hedges		**(8)**	(1)
		57	24
Other comprehensive income for the year		**121**	(35)
Total comprehensive income for the year		**376**	378

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Consolidated Balance Sheet
as at 31st March 2020

	Notes	2020 £ million	2019 £ million
Assets			
Non-current assets			
Property, plant and equipment		**1,403**	1,271
Right-of-use assets		**88**	-
Goodwill		**580**	578
Other intangible assets		**396**	336
Investments in joint venture and associate		**23**	20
Investments at fair value through other comprehensive income		**49**	52
Other receivables		**63**	39
Interest rate swaps		**34**	13
Deferred tax assets		**66**	58
Post-employment benefit net assets	6	**317**	209
Total non-current assets		**3,019**	2,576
Current assets			
Inventories		**1,902**	1,316
Current tax assets		**31**	37
Trade and other receivables		**2,077**	1,553
Cash and cash equivalents – cash and deposits		**112**	90
Cash and cash equivalents – money market funds		**192**	347
Other financial assets		**28**	22
Assets held for sale		**-**	7
Total current assets		**4,342**	3,372
Total assets		**7,361**	5,948
Liabilities			
Current liabilities			
Trade and other payables		**(2,745)**	(1,647)
Lease liabilities		**(12)**	-
Current tax liabilities		**(106)**	(130)
Cash and cash equivalents – bank overdrafts		**(31)**	(59)
Borrowings and related swaps		**(331)**	(184)
Other financial liabilities		**(50)**	(13)
Provisions		**(11)**	(20)
Total current liabilities		**(3,286)**	(2,053)
Non-current liabilities			
Borrowings and related swaps		**(994)**	(1,073)
Lease liabilities		**(64)**	-
Deferred tax liabilities		**(74)**	(91)
Employee benefit obligations	6	**(104)**	(106)
Provisions		**(9)**	(9)
Other payables		**(6)**	(5)
Total non-current liabilities		**(1,251)**	(1,284)
Total liabilities		**(4,537)**	(3,337)
Net assets		**2,824**	2,611
Equity			
Share capital		**221**	221
Share premium		**148**	148
Shares held in employee share ownership trust (ESOT)		**(32)**	(45)
Other reserves		**142**	87
Retained earnings		**2,345**	2,200
Total equity		**2,824**	2,611

Note: £0.5 billion increase in precious metal inventories on higher volumes and metal price increases; £0.4 billion increase in amounts receivable under precious metal sale and repurchase agreements; £1.0 billion increase in amounts payable under precious metal sale and repurchase agreements.

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

R J MacLeod
A O Manz
Directors

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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:			
Share of profit of joint venture and associate		**(3)**	-
(Profit) / loss on disposal of businesses		**(2)**	12
Depreciation		**154**	142
Amortisation		**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		**(24)**	(40)
Changes in fair value of financial instruments		**24**	(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		**7**	-
Proceeds from sale of non-current assets		**1**	1
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	5	**(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.
[2] £0.4 billion increase in amounts receivable under precious metal sale and repurchase agreements.
[3] £1.0 billion increase in amounts payable under precious metal sale and repurchase agreements.

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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 £ million	Retained earnings £ million	Total equity £ million
At 1st April 2018	221	148	(48)	62	1,995	2,378
Total comprehensive income	-	-	-	21	357	378
Dividends paid (note 5)	-	-	-	-	(156)	(156)
Share-based payments	-	-	-	-	17	17
Cost of shares transferred to employees	-	-	3	-	(10)	(7)
Tax on share-based payments	-	-	-	-	1	1
Reclassification	-	-	-	4	(4)	-
At 31st March 2019	221	148	(45)	87	2,200	2,611
Impact of adoption of IFRIC 23	-	-	-	-	5	5
At 31st March 2019 (restated)	221	148	(45)	87	2,205	2,616
Total comprehensive income	-	-	-	55	321	376
Dividends paid (note 5)	-	-	-	-	(167)	(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**

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Notes on the Preliminary Accounts
for the year ended 31st March 2020

1 Preparation

Basis of preparation and statement of compliance

The financial information contained in this release does not constitute the company's statutory accounts for the years ended 31st March 2020 or 31st March 2019 within the meaning of section 435 of the Companies Act 2006, but is derived from those accounts. 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. Except for the changes noted below, the accounting policies applied are set out in the Annual Report and Accounts for the year ended 31st March 2019.

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.

Statutory accounts for 2019 have been delivered to the Registrar of Companies and those for 2020 will be delivered following the company's Annual General Meeting. The auditors, PwC, have reported on both sets of accounts. Their reports were unqualified, did not include a reference to any matters to which the auditors drew attention by way of emphasis without qualifying their report and did not contain any statement under sections 498(2) or 498(3) of the Companies Act 2006. The accounts for the year ended 31st March 2020 were approved by the Board of Directors on 11th June 2020.

Changes in accounting policies

IFRS 16, Leases

IFRS 16 became applicable to the group on 1st April 2019 and the group changed its accounting policy as a result of adopting the new standard. The impact of the adoption of IFRS 16 and the group's new accounting policy in respect of leases are disclosed in note 11.

IFRIC 23, Uncertainty over Income Tax Treatments

IFRIC 23 became applicable to the group 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 has adopted IFRIC 23 retrospectively, with the cumulative effect of adoption, a £5 million decrease in tax provisions (including interest), recognised in reserves at 1st April 2019.

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

The group has 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.

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1 Preparation (continued)

Changes in accounting policies (continued)

Other amendments to accounting standards
The following amendments to existing standards were applicable to the group from 1st April 2019, but did not have a significant effect on its 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 12.

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2 Segmental information

Revenue, sales, underlying operating profit and net assets 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	**6,172**	**7,670**	**229**	**506**	**-**	**-**	**14,577**
Inter-segment revenue	**1**	**4,291**	**-**	**6**	**-**	**(4,298)**	**-**
Revenue	**6,173**	**11,961**	**229**	**512**	**-**	**(4,298)**	**14,577**
External sales	**2,617**	**945**	**223**	**385**	**-**	**-**	**4,170**
Inter-segment sales	**1**	**134**	**-**	**4**	**-**	**(139)**	**-**
Sales[1]	**2,618**	**1,079**	**223**	**389**	**-**	**(139)**	**4,170**
Underlying operating profit[1]	**295**	**256**	**27**	**(1)**	**(38)**	**-**	**539**
Segmental net assets	**1,361**	**1,267**	**520**	**236**	**332**	**-**	**3,716**
Net debt (note 12)							**(1,094)**
Post-employment benefit net assets and liabilities							**213**
Deferred tax net liabilities							**(8)**
Provisions and non-current other payables							**(26)**
Investments in joint venture and associate							**23**
Net assets							**2,824**

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	4,948	5,074	259	464	-	-	10,745
Inter-segment revenue	210	2,608	-	9	-	(2,827)	-
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
Segmental net assets	1,339	1,243	496	235	108	-	3,421
Net debt (note 12)							(866)
Post-employment benefit net assets and liabilities							103
Deferred tax net liabilities							(33)
Provisions and non-current other payables							(34)
Investments in joint venture and associate							20
Net assets							2,611

[1]Sales and underlying operating profit are non-GAAP measures (see note 12). 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.

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2 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 / £	**1.271**	1.310
Euro / £	**1.143**	1.134
Chinese renminbi / £	**8.85**	8.81

	Year ended 31st March 2020 £ million	Year ended 31st March 2019 At last year's rates £ million	Year ended 31st March 2019 At this year's rates £ million	Change at this year's rates %
Clean Air	**2,618**	2,720	2,739	-4
Efficient Natural Resources	**1,079**	991	1,002	+8
Health	**223**	257	262	-15
New Markets	**389**	362	363	+7
Inter-segment sales	**(139)**	(116)	(116)	
Sales[1]	**4,170**	4,214	4,250	-2
Clean Air	**295**	393	395	-25
Efficient Natural Resources	**256**	181	183	+40
Health	**27**	43	44	-38
New Markets	**(1)**	2	3	n/a
Corporate	**(38)**	(53)	(54)	
Underlying operating profit[1]	**539**	566	571	-6

[1]Sales and underlying operating profit are non-GAAP measures (see note 12). 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.

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3 Revenue

Revenue from external customers by principal products and services

Year ended 31st March 2020

	Clean Air £ million	Efficient Natural Resources £ million	Health £ million	New Markets £ million	Total £ million
Metal	**3,555**	**6,725**	**6**	**121**	**10,407**
Heavy Duty Catalysts	**831**	**-**	**-**	**-**	**831**
Light Duty Catalysts	**1,742**	**-**	**-**	**-**	**1,742**
Catalyst Technologies	**-**	**513**	**-**	**-**	**513**
Platinum Group Metal Services	**-**	**298**	**-**	**-**	**298**
Advanced Glass Technologies	**-**	**70**	**-**	**-**	**70**
Diagnostic Services	**-**	**64**	**-**	**-**	**64**
Generics	**-**	**-**	**134**	**-**	**134**
Innovators	**-**	**-**	**89**	**-**	**89**
Alternative Powertrain	**-**	**-**	**-**	**237**	**237**
Medical Device Components	**-**	**-**	**-**	**71**	**71**
Life Science Technologies	**-**	**-**	**-**	**47**	**47**
Other	**44**	**-**	**-**	**30**	**74**
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
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

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4 Operating profit

	2020 £ million	2019 £ million
Operating profit is arrived at after charging / (crediting):		
Past service credit	**(20)**	(9)
Depreciation of property, plant and equipment	**140**	142
Depreciation of right-of-use assets	**14**	-
Depreciation	**154**	142
Amortisation of internally generated intangible assets included in cost of sales	**3**	6
Amortisation of other intangible assets included in:		
– cost of sales	**1**	2
– distribution costs	**1**	1
– administrative expenses	**7**	6
– amortisation of acquired intangibles	**12**	14
Amortisation	**24**	29
Impairment losses / (reversals) included in administrative expenses:		
– other intangible assets	**1**	-
– property, plant and equipment	**9**	2
– borrowings and related swaps	**-**	(2)
Impairment losses included in amortisation of acquired intangibles:		
– other intangible assets	**1**	-
Impairment losses / (reversals) included in major impairment and restructuring charges:		
– goodwill	**7**	-
– other intangible assets	**31**	-
– property, plant and equipment	**90**	(7)
– right-of-use assets	**1**	-
– inventories	**(3)**	-
– trade and other receivables	**9**	-
Impairment losses / (reversals)	**146**	(7)

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 7 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).

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4 Operating profit (continued)

- **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 c.£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.

5 Dividends

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.

	2020 £ million	2019 £ 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

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6 Post-employment benefits

Background

The group operates a number of post-employment benefit plans around the world, the forms and benefits of which vary with conditions and practices in the countries concerned. The major defined benefit plans are pension plans and post-retirement medical plans in the UK and the US.

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		

Financial information

Movements in the net post-employment benefit assets and liabilities, including reimbursement rights, 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 2019	199	(1)	(9)	(15)	(29)	(38)	107
Current service cost - in operating profit	(8)	(21)	-	(8)	(1)	(3)	(41)
Past service credit - in operating profit	-	-	-	-	10	10	20
Administrative expenses - in operating profit	(3)	-	-	(1)	-	-	(4)
Interest	5	-	-	(1)	(1)	(1)	2
Remeasurements	86	6	(3)	3	(7)	2	87
Company contributions	27	19	-	-	3	3	52
Exchange	-	-	-	(2)	(2)	(1)	(5)
At 31st March 2020	**306**	**3**	**(12)**	**(24)**	**(27)**	**(28)**	**218**

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.

The post-employment benefit assets and liabilities are included in the balance sheet as follows:

	2020 Post-employment benefit net assets £ million	2020 Employee benefit net obligations £ million	2020 Total £ million	2019 Post-employment benefit net assets £ million	2019 Employee benefit net obligations £ million	2019 Total £ 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)	

7 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.

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

[1] 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.
[2] Other receivables with cash flows that do not represent solely the payment of principal and interest.
[3] Includes forward foreign exchange contracts, forward precious metal price contracts and currency swaps.

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7 Fair values (continued)

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

	2020		2019	
	Carrying amount £ million	**Fair value £ million**	Carrying amount £ million	Fair value £ 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 loan 2019	**-**	**-**	(107)	(108)
Sterling Bonds 2024 and 2025	**(110)**	**(108)**	(110)	(118)
KfW US dollar loan 2024	**(41)**	**(41)**	(38)	(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.

8 Precious metal leases

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

9 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.

On a specific matter, 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.

10 Transactions with related parties

There were no material changes in related party relationships in the year ended 31st March 2020 and no related party transactions have taken place which have materially affected the financial position or performance of the group during the year.

11 Changes in accounting policies

This note explains the impact on the group'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 recognises 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 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 has 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 has applied the modified retrospective transition approach and has not restated comparative amounts for the year ended 31st March 2019. Under this approach, the group has 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 has 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.

Impact of adoption on the group's primary statements

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	89
Other receivables[1]	(14)
Total non-current assets	**75**
Total assets	**75**
Current liabilities	
Trade and other payables	1
Lease liabilities	(11)
Total current liabilities	**(10)**
Non-current liabilities	
Lease liabilities	(66)
Provisions	1
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%.

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11 Changes in accounting policies (continued)

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.

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.

Reconciliation between operating lease commitments and lease liabilities

The following table reconciles between the operating lease commitments disclosed under IAS 17 at 31st March 2019 and the lease liabilities recognised in the group's balance sheet on transition to IFRS 16 at 1st April 2019:

	£ 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**

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.

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11 Changes in accounting policies (continued)

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.

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12 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

[2]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.

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12 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 7 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 c.£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.

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12 Non-GAAP measures (continued)

Reconciliations to GAAP measures

Sales

See note 2.

Underlying profit measures

Year ended 31st March 2020	**Operating profit £ million**	**Profit before tax £ million**	**Tax expense £ million**	**Profit for the year £ million**
Underlying	**539**	**455**	**(72)**	**383**
Profit on disposal of businesses	**2**	**2**	**-**	**2**
Amortisation of acquired intangibles	**(13)**	**(13)**	**3**	**(10)**
Major impairment and restructuring charges	**(140)**	**(140)**	**16**	**(124)**
Interest on non-underlying tax provisions	**-**	**1**	**-**	**1**
Change in non-underlying tax provisions	**-**	**-**	**3**	**3**
Reported	**388**	**305**	**(50)**	**255**

Year ended 31st March 2019	Operating profit £ million	Profit before tax £ million	Tax expense £ million	Profit for the year £ million
Underlying	566	523	(83)	440
Loss on disposal of businesses	(12)	(12)	4	(8)
Loss on significant legal proceedings	(17)	(17)	3	(14)
Amortisation of acquired intangibles	(14)	(14)	3	(11)
Major impairment and restructuring charges	8	8	(2)	6
Reported	531	488	(75)	413

Underlying earnings per share

	2020	2019
Underlying profit for the year (£ million)	**383**	440
Weighted average number of shares in issue (number)	**192,437,993**	192,128,811
Underlying earnings per share (pence)	**199.2**	228.8

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12 Non-GAAP measures (continued)

Return on invested capital (ROIC)

	2020 £ million	2019 £ million
Underlying operating profit	**539**	566
Average net debt	**1,489**	1,128
Average equity	**2,733**	2,541
Average capital employed	**4,222**	3,669
Less: Average pension net assets	**(212)**	(251)
Less: Average related deferred taxation	**32**	41
Average capital employed (excluding post tax pension net assets)	**4,042**	3,459
ROIC (excluding post tax pension net assets)	**13.3%**	16.4%
ROIC	**12.8%**	15.4%

Average working capital days (excluding precious metals)

	2020 £ million	2019 £ million
Inventories	**1,902**	1,316
Trade and other receivables	**2,077**	1,553
Trade and other payables	**(2,745)**	(1,647)
Total working capital	**1,234**	1,222
Less: Precious metal working capital	**(597)**	(590)
Working capital (excluding precious metals)	**637**	632
Average working capital days (excluding precious metals)	**63**	59

Free cash flow

	2020 £ million	2019 £ million
Net cash inflow from operating activities	**598**	334
Interest received	**104**	61
Interest paid	**(202)**	(108)
Purchases of property, plant and equipment	**(332)**	(215)
Purchases of intangible assets	**(111)**	(86)
Proceeds from sale of assets held for sale	**7**	-
Proceeds from sale of non-current assets	**1**	1
Principal element of lease payments	**(13)**	-
Free cash flow	**52**	(13)

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12 Non-GAAP measures (continued)

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

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

13 Events after the balance sheet date

The impact of the COVID-19 pandemic on the group's operations and the carrying value of certain assets at 31st March 2020 has been considered. 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.

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Financial Calendar

2020

18th June
Ex dividend date

19th June
Final dividend record date

23rd July
129th Annual General Meeting (AGM)

4th August
Payment of final dividend subject to declaration at the AGM

19th November
Announcement of results for the six months ending 30th September 2020

26th November
Ex dividend date

27th November
Interim dividend record date

Cautionary Statement

This announcement contains forward looking statements that are subject to risk factors associated with, amongst other things, the economic and business circumstances occurring from time to time in the countries and sectors in which the group operates. It is believed that the expectations reflected in this announcement are reasonable but they may be affected by a wide range of variables which could cause actual results to differ materially from those currently anticipated.

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